

COLLIER COUNTY
Metropolitan Planning Organization



AGENDA

Board of County Commission Chambers
Collier County Government Center
3299 Tamiami Trail East, 3rd Floor
Naples, FL 34112

March 09, 2018

9:00 AM

Commissioner William L. McDaniel, Jr., Chair
Councilwoman Linda Penniman, Vice-Chair
Commissioner Penny Taylor
Commissioner Andy Solis, Esq.
Commissioner Burt L. Saunders
Commissioner Donna Fiala
Councilman Reg Buxton
Councilman Joe Batte
Councilwoman Elaine Middelstaedt

This meeting of the Collier Metropolitan Planning Organization (MPO) is open to the public and citizen input is encouraged. Any person wishing to speak on any scheduled item may do so upon recognition of the Chairperson. Any person desiring to have an item placed on the agenda shall make a request in writing with a description and summary of the item, to the MPO Director or MPO Chairman 14 days prior to the date of the next scheduled meeting of the MPO. Any person who decides to appeal a decision of this Board will need a record of the proceedings pertaining thereto, and therefore may need to ensure that a verbatim record of the proceeding is made, which record includes the testimony and evidence upon which the appeal is to be based. In accordance with the Americans with Disabilities Act, any person requiring special accommodations to participate in this meeting should contact Anne McLaughlin, MPO Executive Director, 72 hours prior to the meeting by calling (239) 252-8192. The MPO's planning process is conducted in accordance with Title VI of the Civil Rights Act of 1964 and Related Statutes. Any person or beneficiary who believes that within the MPO's planning process they have been discriminated against because of race, color, religion, sex, age, national origin, disability, or familial status may file a complaint with the Collier MPO Executive Director, Anne McLaughlin at (239) 252-8192 or by writing to Ms. McLaughlin at 2885 South Horseshoe Dr., Naples, FL 34104.

- 1. CALL TO ORDER**
- 2. ROLL CALL**
- 3. PLEDGE OF ALLEGIANCE**
- 4. ELECTION OF CHAIR (NOT REQUIRED)**
- 5. APPROVAL OF THE AGENDA, PREVIOUS MINUTES AND CONSENT ITEMS**
 - 5.A. February 9, 2018 MPO Board Meeting Minutes**
 - 5.B. Approve Second Amendment to Executive Director's Employment Agreement**
 - 5.C. Approval of Reappointments to Bicycle and Pedestrian Advisory Committee for Joe Bonness, Jane Cheffy, and Dr. Mort Friedman**
- 6. PUBLIC COMMENTS FOR ITEMS NOT ON THE AGENDA**
- 7. AGENCY UPDATES**
 - 7.A. FDOT**
 - 7.B. MPO EXECUTIVE DIRECTOR**
- 8. COMMITTEE CHAIR REPORTS**
 - 8.A. CITIZENS ADVISORY COMMITTEE (CAC)**
 - 8.A.1. Citizen Advisory Committee Chair Report**
 - 8.B. TECHNICAL ADVISORY COMMITTEE (TAC)**
 - 8.B.1. Technical Advisory Committee Chair Report**
 - 8.C. BICYCLE AND PEDESTRIAN ADVISORY COMMITTEE (BPAC)**
 - 8.C.1. Bicycle and Pedestrian Advisory Committee Chair Report**
 - 8.D. LOCAL COORDINATING BOARD**
 - 8.D.1. Local Coordinating Board Chair Report**
- 9. REGULAR BOARD ACTION (ROLL CALL REQUIRED)**
- 10. REGULAR BOARD ACTION (NO ROLL CALL)**
 - 10.A. Review and Endorse 2040 LRTP Amendment Needs and Cost Feasible Projects for Public Review and Comment**
- 11. PRESENTATIONS (MAY REQUIRE BOARD ACTION)**

- 11.A. City of Naples and Collier County TMC Co-location Feasibility Study**
- 11.B. Review of Draft Fiscal Year 2018/19-2019/20 Unified Planning Work Program**
- 11.C. Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to Guilford Rd**
- 11.D. Draft Scope of Work for the 2045 Long Range Transportation Plan (LRTP)**
- 11.E. Draft Narrative and Project Sheets for FY2019-2023 Transportation Improvement Program**
- 12. MEMBER COMMENTS**
- 13. DISTRIBUTION ITEMS**
- 14. NEXT MEETING DATE**
 - 14.A. Regular Meeting - April 13, 2018 - 9:00 a.m. Marco Island Community Meeting Room, 51 Bald Eagle Drive, Marco Island, FL 34145**
- 15. ADJOURN**

03/09/2018

COLLIER COUNTY
Metropolitan Planning Organization

Item Number: 5.A

Item Summary: February 9, 2018 MPO Board Meeting Minutes

Meeting Date: 03/09/2018

Prepared by:

Title: Planner, Senior – Metropolitan Planning Organization

Name: Brandy Otero

03/01/2018 2:10 PM

Submitted by:

Title: Executive Director - MPO – Metropolitan Planning Organization

Name: Anne McLaughlin

03/01/2018 2:10 PM

Approved By:

Review:

Metropolitan Planning Organization	Brandy Otero	MPO Analyst Review	Completed	03/01/2018 2:10 PM
Metropolitan Planning Organization	Anne McLaughlin	MPO Executive Director Review	Completed	03/01/2018 2:13 PM
Metropolitan Planning Organization	Anne McLaughlin	Meeting Pending		03/09/2018 9:00 AM

COLLIER METROPOLITAN PLANNING ORGANIZATION (MPO) BOARD MEETING

Board of County Commissioners Chambers

3299 E. Tamiami Trail, Naples

9:00 a.m.

February 9, 2018

Meeting Minutes

1. Call to Order

Commissioner Taylor called the meeting to order at approximately 9 a.m.

2. Roll Call

Ms. Otero called the roll and confirmed that a quorum was present.

Members Present

Commissioner Penny Taylor, Collier County BCC District 4, Chair
 Commissioner William L. McDaniel, Jr., Collier County BCC District 5, Vice-Chair
 Commissioner Andy Solis, Collier County BCC District 2
 Vice-Mayor Linda Penniman, City of Naples
 Councilman Reg Buxton, City of Naples
 Commissioner Donna Fiala, Collier County BCC District 1
 Commissioner Burt Saunders, Collier County BCC District 3
 Councilman Joe Batte, City of Marco Island

Members Absent

Councilwoman Elaine Middelstaedt, City of Everglades City

MPO Staff

Anne McLaughlin, MPO Executive Director
 Brandy Otero, MPO Senior Planner
 Eric Ortman, MPO Senior Planner
 Gabrielle Gonzalez, MPO Administrative Secretary

FDOT

Victoria Peters
 Zach Burch

Others Present

Trinity Scott, Collier County Transportation Planning
 Lorraine Lantz, Collier County Transportation Planning
 Mike Bosi, Collier County Planning and Zoning
 Michael Cox, Collier County Admin Services
 Wally Blain, Tindale Oliver Associates
 Andrea Halman, Citizens Advisory Committee
 Michael Seaf, Collier Citizen's for Sustainability
 Alison Wescott, Conservancy of Southwest Florida

3. Pledge of Allegiance

Commissioner McDaniel led the Pledge of Allegiance.

4. Election of Chair & Vice-Chair

A. Elect MPO Board Chair & Vice-Chair

Commissioner Taylor stated that it had been a pleasure to work with Anne McLaughlin during her time as MPO Board Chair. She stated that it seemed to her that there was a natural bias attributed to the fact that the MPO Board sits in the County. Commissioner Taylor also stated that she had asked the Executive Director to compile a list of who has been MPO Chair for the past 10-years and it seemed clear that it was Marco Island’s turn to Chair the MPO Board.

Councilman Batte stated that he was unsure if he would be able to fulfill the role because of personal circumstances that would arise within the coming months. He also stated that there was a possibility that Marco Island would soon replace him on the council.

Commissioner Taylor opened the floor for nominations and further discussion.

Commissioner Fiala: I nominate Bill McDaniel as Chair.

Commissioner Taylor: I nominate Linda Penniman as Chair.

Saunders: I move that we close the nominations and have a discussion.

Discussion ensued amongst committee members. Commissioner Taylor asked for a roll call vote to be taken for the nominations. A roll call for Commissioner McDaniel was taken first. Ms. Otero called the roll.

Commissioner Taylor: No.

Commissioner Solis: Yes.

Commissioner McDaniel: Yes.

Vice-Mayor Penniman: Yes.

Commissioner Fiala: Yes.

Councilman Buxton: No.

Commissioner Saunders: Yes.

Councilman Batte: Yes.

THE MOTION CARRIED 6:2 WITH COMMISSIONER TAYLOR AND COUNCILMAN BATTE BEING OPPOSED.

Commissioner Saunders: I nominate Linda Penniman for Vice-Chair.

Commissioner McDaniel: I second the motion.

Attachment: February 9, 2018 MPO Board Meeting Minutes (4994 : February 9, 2018 MPO Board Meeting Minutes)

Ms. Otero called the roll for the nomination of Vice-Mayor Penniman for Vice-Chair.

- Commissioner Taylor:** Yes.
- Commissioner Solis:** Yes.
- Commissioner McDaniel:** Yes.
- Vice-Mayor Penniman:** Yes.
- Commissioner Fiala:** Yes.
- Councilman Buxton:** Yes.
- Commissioner Saunders:** Yes.
- Councilman Batte:** Yes.

THE MOTION CARRIED UNANIMOUSLY.

5. Approval of the Agenda, Previous Minutes, and Consent Items

A. December 8, 2017 MPO Board Meeting Minutes

- Commissioner Taylor:** I move to approve.
- Councilman Buxton:** I second the motion.

THE MOTION CARRIED UNANIMOUSLY.

B. Joint Lee/Collier MPO Board Meeting Minutes

- Commissioner Taylor:** I move to approve.
- Commissioner Solis:** I second the motion.

THE MOTION CARRIED UNANIMOUSLY.

C. Adoption of the Revised Lee/Collier Interlocal Agreement

- Commissioner Fiala:** I move to approve.
- Councilman Buxton:** I second the motion.

THE MOTION CARRIED UNANIMOUSLY.

D. Annual Review and Adoption of the LCB-Bylaws

- Commissioner Fiala:** I move to approve.

Attachment: February 9, 2018 MPO Board Meeting Minutes (4994 : February 9, 2018 MPO Board Meeting Minutes)

Commissioner Taylor: I second the motion.

Commissioner McDaniel asked how many members were on the Local Coordinating Board (LCB). Ms. Otero stated that there were 17 total member positions with 3 current vacancies.

COMMISSIONER MCDANIEL CALLED THE MOTION TO QUESTION. IT PASSED UNANIMOUSLY.

6. Public Comments for Items not on the Agenda

None.

7. Agency Updates

A. FDOT

Mr. Burch stated that FDOT recently presented the Crossing Guard of the Year award to Ms. Becky Batte who has been a crossing guard in Collier County for over 25 years.

Ms. Peters stated that they were moving forward with a lighting project on US-41 East. She stated that though the speed limit wasn't changing at the moment, FDOT would be revisiting the possibility and that this was explained to the general public at a meeting in the Reflection Lakes community.

Commissioner Fiala stated that 41 East was expanded from 2-6 lanes several years ago and while that was a wonderful improvement, they did not include street lighting as part of the project as lighting was scheduled for FY 2023. She stated that the lack of lighting was a safety concern and that she is happy that they have moved the lighting up to this fiscal year. Commissioner Fiala also stated that FDOT would be addressing the washboard issue on 951 from Fiddler's Creek to Marco Island.

Commissioner Taylor asked if the water flow was causing the washboard effect underneath the surface of the road. Mr. Burch stated that FDOT believes it has been caused by the subbase being compacted. He stated that they had originally planned to resurface the road several years out but were able to move it up. Mr. Burch stated that they've heard from residents that many people come close to losing control of their boat trailers because of the unevenness of the roadway. He stated that FDOT was pleased to have been able to move this up in schedule to this summer.

Commissioner Taylor asked if this occurred due to erosion. Mr. Burch stated that they believed so. He stated that the water that moves through that area has destabilized the base of the road.

Discussion ensued amongst committee members. Commissioner McDaniel cautioned members in saying that this issue has been caused by erosion. He stated that he believed there were issues with the subgrade infrastructure under the road. Commissioner McDaniel stated that often this is due to the surficial runoff of the road and the lack of maintenance along the berms, to allow the dispersal of the impervious area of the pavement to allow the water to run away. Because the water is not able to run off, it puddles underneath the road and causes subsurface infrastructure issues, not necessarily erosion.

Vice-Mayor Penniman asked FDOT for a copy of the engineer's report on this issue. Mr. Burch stated that resurfacing staff has looked at this and they are taking these matters into consideration so that they don't resurface the road and experience the same issues a few years from now. He stated that they can provide the MPO a copy of the report. Vice-Mayor Penniman stated that this has become a common problem. She

referenced Belair Lane stating that the same issue had occurred there. Mr. Burch stated that if there is a pattern emerging this was certainly something that needed to be further explored.

Commissioner Taylor asked if FDOT would be raising the road during the resurfacing and whether FDOT was building to sea level rise. Mr. Burch stated that he would bring back further information on the direction the department was going with building to sea level rise and further information on this specific project.

Commissioner Fiala stated that FDOT was also working on addressing the repairs to the lights going over the bridge to Marco Island. Mr. Burch stated that maintenance staff was currently working with the Federal Emergency Management Agency (FEMA) to address this and that he'd update the Board on this as things moved along.

B. MPO Executive Director

Ms. McLaughlin stated that the Collier MPO staff was entering a busy season and there were several projects the Board would be hearing about in March and April, including the Unified Planning Work Program (UPWP), Transportation Improvement Program (TIP), and other plans underway.

8. Committee Chair Reports

A. Citizens Advisory Committee (CAC)

Mr. Ortman gave the committee chair report. He reported that the committee re-elected their previous Chair and Vice-Chair and that they received a presentation from Tindale Oliver on the LRTP amendment reallocation of socioeconomic (SE) data. The committee also received an update on the CAT Fare Study. Mr. Ortman reported that the committee endorsed the following items:

- FDOT Safety Performance Target
- 2040 LRTP Amendment Reallocation of SE Data

The next CAC meeting will be held on February 26th. The full committee chair report can be made available to anyone who requests it.

B. Technical Advisory Committee (TAC)

Ms. McLaughlin gave the TAC chair report. She reported that the committee re-elected their previous Chair and elected a new Vice-Chair (Michelle Arnold). Ms. McLaughlin stated that the committee received presentations on the Bicycle & Pedestrian Master Plan and the CAT Fare Analysis. They also had a discussion on the bridge and TRIP priorities. Ms. McLaughlin reported that the committee took the following actions:

- Endorsed FDOT safety performance targets
- Endorsed 2040 LRTP Amendment Reallocation of SE Data

The next TAC meeting will be held on February 26th. The full committee chair report can be made available to anyone who requests it.

C. Congestion Management Committee (CMC)

Ms. Otero gave the committee chair report. She stated that the committee received presentations on the draft scope of services for the Transportation System Performance Report and the Collier/Lee/Charlotte Traffic Incident Management Team. The next CMC meeting will be held on March 21st. The full committee chair report can be made available to anyone who requests it.

9. Regular Board Action (Roll Call Required)

None.

10. Regular Board Action (No Roll Call)

A. Adopt FDOT Safety Performance Targets

Ms. McLaughlin stated that this was a new requirement coming from the Federal Government requiring all MPOs around the Country to adopt safety performance targets by the end of February. She stated that she was recommending that the Board support FDOT's 'Vision Zero' targets. Ms. McLaughlin stated that this meant setting an annual target of zero for the items described in the executive summary. Those being:

- Number of Fatalities
- Rate of Fatalities per 100 million Vehicle Miles Traveled (VMT)
- Number of Serious Injuries
- Rate of Serious Injuries per 100 million VMT
- Number of Non-Motorized Fatalities and Serious Injuries

Ms. McLaughlin stated that by supporting FDOT's measures the Collier MPO would be joining 2/3 of the MPOs in Florida who were doing the same. She stated that she believed this would place the MPO in the most solid position in this new area of safety performance measures. Ms. McLaughlin stated that FDOT retains responsibility on reporting to the federal government on performance measures. She stated that by supporting FDOT's 'Vision Zero' target the MPO was a partner with FDOT and safety would be a very high priority goal for the MPO; affecting how projects are prioritized moving forward. Ms. McLaughlin also stated that FDOT had indicated there would not be any punitive actions from FHWA on the MPO for not meeting the state's targets. She stated that this seemed to be the most risk-free position to take.

Commissioner Taylor asked FDOT whether they were responsible for measuring this target. She also asked how this target compared with other states. Ms. Peters stated that FDOT would be reporting directly to FHWA on how they were meeting this standard. She stated that she was unsure what other states were doing in terms of performance targets. Ms. Peters explained that the 'Vision Zero' target came about because there was a consensus that even one death was too many. She stated that she would bring back further information on what other states were adopting. Commissioner Taylor stated that she was concerned with the possible ramifications to the MPOs funding if this target was not met. Ms. Peters stated that FDOT was currently carrying the ramifications that may come from this.

Vice-Mayor Penniman asked if these were one-year targets. Ms. Peters confirmed that they are annual targets. She stated that she was unsure if things would be changed down the line, as these were the first of targets to come.

Commissioner McDaniel asked how many years the DOT has had these targets in place. Ms. Peters stated that this was the very first year. Commissioner McDaniel stated that the estimation of fatalities was set between 2,715 – 3,052. However, the standard was being set to zero as there was no limited value attributable to one life. He stated that the performance measure was set at the highest estimated number of fatalities which seemed to mean that there should be no jeopardy with regard to the MPO's funding. Commissioner McDaniel stated that he'd like to see a historical database with regard to how these numbers were derived and a geographic depiction of where these fatalities occurred. He stated that the ultimate goal he was seeking to accomplish were measurables and milestones. Commissioner McDaniel stated that if this was not being done through a

measurable process, this simply became a paper exercise and would not address the most important issue at hand; reducing crash fatalities.

Mr. Burch stated that this was the first time that this process was formalized with FHWA. He stated that everyone's goal, including the MPO, has always been to have zero fatalities. Mr. Burch stated that FDOT has worked with the Collier MPO and other MPOs in the past to look at areas with high crash fatalities and this was simply a formalization of that process with FHWA and FDOT. He stated that he was confident that FDOT could bring back what Commissioner McDaniel was looking for historically. Mr. Burch addressed the Board's concern with ramifications to federal funding, stating that the FDOT's budget was 75-80% state funding. However, FDOT was committed to do everything possible to meet these goals and continue to get as much federal funding as possible for all counties.

Commissioner Solis asked if the federal requirements were statewide or countywide. Mr. Burch stated that this was a statewide number but certainly each district would work with their counties to do what they can to improve these numbers.

Commissioner McDaniel entertained a motion for approval of this item.

Vice-Mayor Penniman: I move to approve FDOT's safety performance targets.

Councilman Buxton: I second the motion.

THE MOTION CARRIED UNANIMOUSLY.

B. Approval of Annual Performance Review of MPO Executive Director

Ms. McLaughlin stated that the annual performance review was a requirement of her contract with the MPO Board. She stated that this was a precursor to the Board's decision on whether or not to renew her contract, which would be brought before the Board in March. Ms. McLaughlin stated that in December of each year the Board votes on the performance evaluation criteria which she has based on what the job description says should be accomplished and incorporates what the Strategic Plan says staff should be doing. She stated that this year she may have caused Commissioner Fiala some confusion when she presented the Annual Report in December, which was intended to give the Board a list of accomplishments for the year. She stated that to avoid causing confusion in coming years she would cross-reference the Annual Report on the evaluation form.

Commissioner Fiala stated that Ms. McLaughlin has been outstanding and an excellent director. She stated that wanted to give Ms. McLaughlin all 3's on her ratings however, she had nothing to reference to on the evaluation form.

Brief discussion ensued on whether Commissioner Fiala would like to redo the evaluation form now that she understood what it was based on. Ms. McLaughlin stated that she didn't think any new scores would change the totals much.

Commissioner McDaniel entertained a motion to approve the annual performance review.

Commissioner Fiala: I move to approve the MPO Director's annual performance review.

Vice-Mayor Penniman: I second the motion.

THE MOTION CARRIED UNANIMOUSLY.

11. Presentations (May Require Board Action)

A. Presentation on Collier County Interactive Growth Model

Mike Bosi, Zoning and Planning Director with Collier County, gave the Board a presentation on the update to the County's Interactive Growth Model. He stated that the model was originally developed over a decade ago during the East of 951 study. Mr. Bosi stated that the County has always been interested in trying to understand the growth and development schedule that the Growth Management Plan allows for and how to accommodate the infrastructure and service needs of the population and aligning that with the budgetary limitations. He stated that the model was developed over a 2-year period from 2007-2008 and was adopted by the Board of County Commissioners in 2009 as an additional planning tool. Mr. Bosi stated that the original growth model was only focused on the eastern portion of the County, but the updated model includes the entire County. Mr. Bosi continued with the Power Point presentation, which can be made available to anyone who requests it. He covered what the growth model does and how it is used stating that the model is used as a tool that forecasts when and where development will take place for each of the County's Traffic Analysis Zones (TAZs). Mr. Bosi stated that the model was useful in identifying deficiencies in land use regulations and future economic trends. Mr. Bosi continued stating that the model was interactive and can be programmed to predict future needs for commercial centers, schools, parks, fire stations, utility expansion, etc. The model can also demonstrate alternative growth scenarios and their impacts. Mr. Bosi explained the way that the model works, stating that it uses growth trends, regulatory allowance of zoning, and the regulatory allowance of the Growth Management Plan to create algorithms. The equations express the limitations of growth for any one individual TAZ and determine what support services are needed to support the residential units. Mr. Bosi stated that this was important for the MPO because the data that can be provided from the Growth Model would be essential for the development of the Long-Range Transportation Plan (LRTP). He also stated the Model wasn't only useful for infrastructure planning but also for evaluation of proposed new land uses to determine how the area is doing in terms of overall land use budgeting allocation. Mr. Bosi explained that all of the sub models work off of the base numbers provided by the housing net growth summary, which is a projection of the growth in the number of housing units over time based on the algorithms provided in the model.

Commissioner Taylor asked if the model used census data to come up with predictions. Mr. Bosi stated that while the County does use census data the model projects housing units over time not based upon the census but based upon the housing units that are contained within the algorithms. Ms. McLaughlin clarified that for the purpose of the LRTP the MPO would receive population caps to plan towards from the Bureau of Economic and Business Research (BEBR) and the fact that the County's growth model allocates population and employment to TAZs supports the data input needs of FDOT's District 1 Travel Demand Model. Ms. McLaughlin stated that by using the proper analysis and tools the MPO could best allocate growth within the population cap provided and within the region for the LRTP. She stated that this needed to be consistent with the County's Master Plan for development.

Mr. Bosi continued with his presentation stating that the model would serve as a common database for many other plans. He stated that the CIGM has been recognized by the American Planning Association (APA) as a unique tool for infrastructure planning and population growth. Mr. Bosi talked about upcoming workshops for the development of the CIGM and timeline for completion in the fall. He stated that land use planning is working in coordination with the MPO and transportation department. Mr. Bosi stated that from the land use planning view he can try to improve the transportation network without increasing one lane mile of new additional road. He stated that if we stay attentive to land uses and support land uses and their locations then we can have a positive impact on the trip characteristics and the trip length that are associated with and coming from the generators in the community. The generators being households, and attractors being commercial centers, employment, etc. Mr. Bosi further stated that if we have a better relationship between where the generators and where attractors are, we can in effect change the trip characteristics and improve the transportation network not through physically outlays for new roads but through better land use planning.

Vice-Mayor Penniman stated that there is a nexus of growth out in the County (referencing Ave Maria) that has never realized its full potential. She asked if this is something that needs to be looked at. Mr. Bosi stated that when Ave Maria came on, the recession hit and they were not able to build out fully; however, Oil Well Rd was widened. He stated that that in fairness, the evaluation of the Rural Lands Stewardship Area was long term. Mr. Bosi also stated that Ave Maria is one of the only communities in the County that offers lower housing prices and stated that now Arthrex has a very large manufacturing center there. He stated that within a few years, this will change the trip characteristics. It was the County's long-range vision to create economic opportunities within the eastern portions of the County in a responsible way while attending to the environment, ecological needs, and agricultural needs of the community. He stated that with Rural Lands West coming in this would further develop the eastern portions of the County. Mr. Bosi stated that this would create opportunities for people to sustain themselves within the areas that they live. Vice-Mayor Penniman stated that this was an opportunity and it seemed to her that we should be recommending that this area of the County reaches its full potential as there is already infrastructure there.

Discussion ensued amongst committee members concerning the CIGM tool. Commissioner McDaniel stated that the goal of the CIGM is to be able to provide staff with more accurate information so that we don't end up with things like an overbuilt infrastructure system. He stated that there are policy decisions that have to do with opening up other areas of development.

Commissioner Taylor stated that she saw another part to this which was the increasing of density. She stated that it has been the County Commission's practice to increase density. Commissioner Taylor stated that increasing the density skews the model and then the model needs to be rerun. She stated that the plea from people in her constituency is to say what is enough. She asked if there will ever be a time when the commission will say they can't and won't accommodate anymore development.

B. Update on Bicycle & Pedestrian Master Plan

Mr. Ortman introduced Mr. Wally Blain with Tindale Oliver - the consultant hired for the update to the Bicycle & Pedestrian Master Plan (BPMP). Mr. Ortman discussed public outreach efforts the MPO has undertaken for the BPMP then turned it over to Mr. Blain.

Mr. Blain gave the Board a Power Point presentation, which can be made available to anyone who requests it. Mr. Blain's presentation covered the plan's goals and objectives along with broad themes and the direction of the plan. Mr. Blain stated that during the community engagement process several key comments came in pertaining to safety, connectivity, health, environment, equity, livability, and economic concerns and/or interests. The public gave ideas for connectivity such as connecting the greenways, connections to and from the beach, and connections between Immokalee and the rest of the County. Safety also came up as a concern several times during the public engagement process; specifically, trail/traffic crossings and other roadway dangers. Mr. Blain stated that the TAC had a broad discussion concerning developer responsibility and connectivity of the existing system. He went on to discuss the success of the online WikiMap tool that allows members of the public to note their comments and concerns directly on a map. Mr. Blain also discussed the response to the online survey stating that over 200 responses have been received. He stated that the online surveys brought forth further concerns of the general public; those include lack of facilities, driver behavior, high speed traffic, large intersections, and others. Mr. Blain stated also discussed the vision statement that has been developed for the BPMP, "to provide a safe and comprehensive bicycle and pedestrian network that promotes and encourages community use and enjoyment." He then covered the proposed goals and objectives that have been developed out of the public engagement process. Mr. Blain also summarized what the next steps would be in the development of the BPMP.

Commissioner McDaniel opened the floor for comments from Board members. He stated that he'd like to see measurables and milestones developed. Commissioner McDaniel stated that it was important to develop parameters so that we are able to measure the success of the plan.

Commissioner Taylor complimented Mr. Ortman for his presentation to the Community Redevelopment Association (CRA) recently.

Vice-Mayor Penniman stated that she'd like more information on the exact areas of crashes and safety concerns that were noted on the WikiMap. Mr. Blain clarified that this was information received from the public however, actual crash data was available and would be incorporated into identifying implementation of policies and specific projects.

C. Update on Amendment to the 2040 Long Range Transportation Plan (LRTP)

Ms. Otero stated that the MPO Board approved the scope of work, funding agreement, and selection of Tindale Oliver for the amendment in October of last year. She stated that the purpose of the amendment was to update the 2040 LRTP Socio-Economic (SE) data, needs projects, and cost feasible list. Ms. Otero stated that the MPO is working with the MPOs advisory committees and the first step in this amendment includes reallocation of the SE data to reflect the Rural Lands West (RLW) development. She stated that the adopted 2040 LRTP included 80% of proposed dwelling units and employment for approved growth areas and that same methodology has been used for this amendment. Ms. Otero stated that the MPO has worked with Mr. Bosi and the County Zoning and Planning Department to take a three-tiered approach to reallocate growth. The first being the reallocation of growth from the original Big Cypress Traffic Analysis Zones (TAZ). Second, the removal of growth from potential stewardship sending areas and thirdly a reduction in the areas East of 951. Ms. Otero stated that this has gone before the TAC and CAC, who have endorsed the methodology used to reallocate the SE data. She stated that the next steps would be to present a draft of the needs and cost feasible revisions to the advisory committees. The lists would then come before the MPO Board in March before commencing a public involvement period. Ms. Otero stated that the MPOs goal was to have the amendment adopted at the Board's May meeting. Ms. Otero stated that there were two public speakers for this item.

Commissioner McDaniel asked a question related to the calculation for the tier 3 reallocation methodology. He commented that there is a discussion in the report that starts off talking about reallocating growth east of 951 and then moves into the four quadrants of 951 and I-75. He asked why the reallocation was taken was from all 4 quadrants surrounding 951 instead of just the 2 to the east. He also asked about additional TAZ units that were reallocated in tier three as well, stating that he did not see a reference as to where those additional TAZ units were located and how those allocations were being appropriated. Commissioner McDaniel stated that his questions did not need to be answered at the meeting, but could be responded to later. He then opened the floor for public speakers. Their comments are summarized below.

Ms. Alison Wescott, representing The Conservancy of SWFL, stated that the Conservancy thinks it is premature to complete an amendment at this time. She stated that there are at least five Stewardship Receiving Areas in the Rural Lands Stewardship Area in various stages of development, including Ave Maria, RLW, Alico, Hogan Island, and Winchester Lakes; all in various stages of design. Ms. Wescott stated that the Conservancy wonders why this is being done now instead of during the development of the 2045 LRTP. She stated that they'd like to see the County look at the entire picture in this area instead of just the RLW portion. Ms. Wescott stated that it appeared that projected populations and employment is being reduced in some areas in order to accommodate RLW while staying within the 2040 LRTP's population assumptions. She asked if these assumptions would really hold when it is known that these areas will continue to grow. Ms. Wescott stated that the fact that RLW is paying for this amendment does not mean that they plan on paying for the new roads that need to be developed. Ms. Wescott also stated that the Conservancy would like to know how this will impact the existing needs for roads and projects already identified as priorities in the MPO needs assessment and in the cost feasible

plan. She stated that those priorities are considered critical for existing populations. She also stated that the Conservancy would like to know what is planned for public outreach for this amendment. Ms. Wescott then presented a map and discussed the Conservancy's concerns.

Mr. Michael Seaf, representing the Collier Citizen's for Sustainability, stated that modeling and population projections are very difficult. He compared these to weather forecasting, stating that there is a large uncertainty. Mr. Seaf stated that using median population projections is a poor methodology. He stated that though Ave Maria was developing it is still not at the point it was thought to be by this time and neither is Oil Well Road. Mr. Seaf stated that another issue with using population projections is the seasonality of the community. He stated that there is a high portion of our population that is seasonal and this needed to be factored in as well. Mr. Seaf stated that there are many fallibilities with models. He asked to what extent does the model deal with RLW. Mr. Seaf also asked how much of an extension of Everglades and Desoto Blvd will be needed and what the cost per lane will be. He questioned where the data is. Mr. Seaf's concerns were that there were a lot of assumptions that go along with this amendment and it is critical to understand what the assumptions are prior to moving forward.

12. Member Comments

Commissioner Solis commended staff and Ms. McLaughlin. He stated that the MPO process was very complicated and the depth of staff's knowledge was impressive.

Vice-Mayor Penniman also thanked staff and stated that Mr. Bosi's presentation was impressive. She stated that the impacts on the City of Naples will be tremendous and we should tread slowly.

Councilman Buxton also thanked Ms. McLaughlin and the MPO staff. He stated that is more important than ever that there is synergy between the City and the County to accommodate the growth that is coming.

Commissioner Saunders also thanked staff. He stated that he'd like to see a report on SR 82 and any projects happening on SR 82. Commissioner Saunders also asked for a report on the MPO's funding allocation and fair share.

Commissioner McDaniel stated that he'd like to see some historical data pertaining to what the MPOs fair share and what those numbers have been recently, as well as what they would've been had the MPO been getting their fair share all along. Commissioner McDaniel stated that the Everglades City Seafood Festival begins that evening. He stated that Everglades City has done a marvelous job at recovering from Hurricane Irma.

13. Distribution Items

None.

14. Next Meeting Date

A. Regular Meeting – March 9, 2018 – 9:00 a.m. Board of County Commissioners Chambers

15. Adjourn

With no further comments Commissioner McDaniel adjourned the meeting at approximately 11:10 a.m.

EXECUTIVE SUMMARY

Approve Second Amendment to Executive Director's Employment Agreement

OBJECTIVE: For the Board to approve the Second Amendment to the Executive Director's Employment Agreement.

CONSIDERATIONS: The MPO Board completed its annual performance evaluation of the MPO Executive Director at its last meeting on February 9th and voted to direct the County Attorney's Office to prepare an amendment to the Director's employment agreement to extend the term another two years.

The attached Second Amendment makes the following revisions to the Executive Director's Employment Agreement:

- In Section 2: Term - The term of employment is extended for an additional two years from the date of approval, March 9, 2018 through and until March 9, 2020.
- In Section 7A.: Salary - The Executive Director's salary is revised to reflect her current salary, which incorporates any previously applied cost of living adjustments.
- In Section 18: Notices - The Executive Director's contact information is revised from her previous out of State residence to her MPO office address.

Since the Second Amendment incorporates the entire Employment Agreement into one integrated instrument (and reflects the revisions in strikethrough/underscore references) a separate "clean" version of the Agreement for execution is unnecessary. Once approved, the Second Amendment will serve as the current employment agreement between the Collier MPO and the Executive Director and will provide a historical record of the revisions to the agreement.

COMMITTEE RECOMMENDATIONS: n/a

STAFF RECOMMENDATION: That the Board approve the Second Amendment to Executive Director's Employment Agreement

Prepared By: Anne McLaughlin, MPO Director

ATTACHMENT(S)

1. Amendment 2 to Employment Agreement MPO (PDF)
2. Amendment 1 to Executive Director Employment Agreement (PDF)
3. Anne McLaughlin Executed Employment Agreement (PDF)

03/09/2018

**COLLIER COUNTY
Metropolitan Planning Organization**

Item Number: 5.B**Doc ID:** 4980**Item Summary:** Approve Second Amendment to Executive Director's Employment Agreement**Meeting Date:** 03/09/2018**Prepared by:**

Title: Planner, Senior – Metropolitan Planning Organization

Name: Brandy Otero

03/01/2018 1:16 PM

Submitted by:

Title: Executive Director - MPO – Metropolitan Planning Organization

Name: Anne McLaughlin

03/01/2018 1:16 PM

Approved By:**Review:**

Metropolitan Planning Organization	Brandy Otero	MPO Analyst Review	Completed	03/01/2018 1:16 PM
Metropolitan Planning Organization	Anne McLaughlin	MPO Executive Director Review	Completed	03/01/2018 1:47 PM
Metropolitan Planning Organization	Anne McLaughlin	Meeting Pending		03/09/2018 9:00 AM

**SECOND AMENDMENT TO EMPLOYMENT AGREEMENT
BETWEEN ANNE M. McLAUGHLIN AND THE
COLLIER METROPOLITAN PLANNING ORGANIZATION**

THIS AMENDMENT TO EMPLOYMENT AGREEMENT is entered into this 9th day of March 2018, by and between Anne M. McLaughlin, the Executive Director of the Collier Metropolitan Planning Organization (hereafter, the "Employee"), and the Collier Metropolitan Planning Organization (hereafter, the "MPO").

WITNESSETH

WHEREAS, on December 8, 2015, the Employee and the MPO entered into an Employment Agreement wherein the MPO hired the Employee to serve as its Executive Director (*see attached Copy*); and

WHEREAS, the Employment Agreement provides for the terms and conditions of the Employee's employment with the MPO, including but not limited to her term of employment, severance pay benefits, employee benefit package and annual performance evaluation; and

WHEREAS, on December 8, 2017, the Employee and the MPO entered into a First Amendment to the Employment Agreement to extend her Employment Agreement through March 31, 2018, to allow an opportunity for the MPO to complete her annual performance evaluation and provide direction on her further employment with the MPO; and

WHEREAS, the parties desire to further amend the Employment Agreement to extend the term of the Employee's employment for two more years as provided in Section 2: Term, to reflect the Employee's current MPO Board approved salary in Section 7(A): Salary, which includes any cost of living adjustments received since being hired, and Section 18: Notices.

NOW, THEREFORE, in consideration of the mutual promises and covenants contained herein, the parties hereto agree to further amend the Amendment to the Agreement by striking through various provisions and underscoring new terms and conditions as follows:

Section 1. Role and Duties The MPO agrees to employ Employee as its Executive Director, and Employee agrees to perform the functions and duties thereof, as may now and in the future be assigned and directed by the MPO. Until so amended, the role and duties of the Executive Director shall include but not be limited to the following:

- a. The Employee shall act as the Chief Administrative Officer of the MPO, directly reporting and responsible to the MPO Board and responsible for the day to day implementation of MPO programs and activities including MPO staff selection and supervision. The Employee shall devote full time efforts to the MPO and its mission. The Employee shall also direct and supervise professional service providers engaged by the MPO.

- b. The Employee shall perform such other associated and legally required duties and functions, as may now and in the future be required by Interlocal Agreement, MPO Staff Services Agreement, Section 339.175, Florida Statutes, any other applicable Florida laws, and such other legally permissible and proper duties and functions as the MPO shall from time to time assign or direct.
- c. Formulate and prepare recommendations regarding policies, rules and regulations, directives, programs, agreements, and all other documents which require consideration, action, or approval of the MPO.
- d. Prepare annual budgets and the annual reports for approval of the MPO.
- e. The Employee agrees to perform all such functions and duties, faithfully, competently, professionally and promptly to the best of the Employee's ability.
- d. A copy of the Classification Specifications for the Executive Director position is attached hereto as Exhibit "A" and is incorporated by reference to provide further description of the duties expected from persons employed in this position.

Section 2: Term

- A. Employee agrees to remain in the exclusive employ of the MPO from ~~the start date of her employment on January 12, 2016~~ March 9, 2018 through and until January 12, 2018 March 9, 2020; and neither to accept other employment nor to become employed by any other employer until termination of employment pursuant to this Agreement, except as provided in Section 10, *infra*.
- B. Neither party has any right to renew or extend this Agreement. If the Employee desires to renew and extend this Agreement, she shall place her request in writing for the MPO's consideration at a regularly scheduled MPO meeting no later than 120 days prior to the expiration of her current term of employment. If the MPO accepts the Employee's request, the term of this Agreement may be extended for a period of two (2) years through a mutual written agreement executed by the MPO and the Employee. Although both parties retain the right not to extend this Agreement with or without reason or cause, it is contemplated that the MPO will base its decision on the question of whether or not to grant the extension of the term of this Agreement on (1) the Employee's performance and (2) the Employee's ability to successfully achieve goals mutually developed and agreed to by the Employee and the MPO.
- C. Elements of this Agreement may be changed at any time when mutually agreed upon in writing by the MPO and the Employee.

Section 3: Suspension

The MPO may suspend the Employee with full pay and benefits at any time during the term of this Agreement, but only if:

- A. A majority of the MPO and Employee agree; or
- B. After a public hearing, a majority of the MPO votes to suspend Employee for just cause; provided, however, that Employee shall have been given written notice setting forth any charges at least ten (10) days prior to such hearing by the MPO's members bringing such charges. Just cause shall include only willful misconduct or willful failure or disregard of Employee's duties under this Employment Agreement.

Section 4: Termination and Severance Pay

Subject to the provisions of this Agreement, the Executive Director may be terminated, with or without cause, by a majority vote of the MPO.

In the event this Employment Agreement with Employee is terminated by the MPO before expiration of the aforesaid term of employment and during such time that Employee is willing and able to perform her duties under this Agreement, then, and only in that event, the MPO agrees to pay Employee, in addition to any amounts then due Employee including any unused vacation leave, a lump sum payment within ten (10) working days after the effective date of termination in an amount equal to four (4) weeks of Employee's annual base salary at the rate effective on the date of termination, less any normally required deductions. Sick leave is not a compensable expense and is expressly not included in such a payout.

In the event Employee is convicted of any felony or of any crime involving moral turpitude, or fired for an act of misconduct as defined in Florida Statutes § 443.036(29), the MPO may terminate Employee's employment without notice and without any obligation to pay any aggregate severance sum or to provide post-termination insurance benefits described in the above paragraphs.

Section 5: Resignation

In the event Employee voluntarily resigns her position with the MPO before expiration of her employment, then Employee shall give the MPO thirty (30) days advance written notice. If Employee voluntarily resigns, providing MPO with less than thirty (30) days notice, Employee shall forfeit any payment for accrued leave otherwise due and owing.

Section 6: Disability

If Employee is permanently disabled or is otherwise unable to perform her duties because of sickness, accident, injury, mental incapacity or health for a period of four (4) successive weeks beyond any accrued leave, the MPO shall have the option to terminate this Agreement, subject to the severance pay requirements of Section 4.

Section 7: Salary

- A. MPO agrees to pay Employee for her services rendered pursuant hereto an annual base salary of ~~\$92,700.00~~ \$98,250.00 payable in bi-weekly installments.
- B. The MPO and Employee shall negotiate in good faith to establish, within one hundred and twenty (120) days after execution of this Agreement, a performance-based merit plan through which the Employee may be eligible for a merit adjustment upon the successful completion of measurable goals and objectives to be completed or attained by the Employee during each fiscal year of this Agreement. The percentage of any annual performance-based merit adjustment to the Employee's base pay or such one-time lump sum amount shall be set by the MPO Board. The MPO Board may choose to adopt any merit pay adjustment policy offered by Collier County Government to its employees.
- C. On the date that general wage adjustments (i.e., cost of living adjustments, special study pay adjustments, etc.) are granted generally to Collier County Government employees, the Employee's base salary shall likewise be modified to reflect such general wage adjustments. The timing of any such wage adjustments is for administrative purposes only as the Employee is not a County Employee but rather reports directly to the MPO and there is no guarantee that the Employee will receive such general wage adjustments.

Section 8: Performance Evaluation

The MPO shall review and evaluate the performance of the Employee in accordance with the performance-based merit plan as provided in Section 7. Written evaluations based on said performance plan will be provided by each voting MPO Board member to Employee by no later than 48 hours prior to the scheduled September MPO meeting for each year of this Agreement; and are to be incorporated as part of the Employee's annual performance evaluation, which shall take place during the MPO's regular October meeting. A summary of all evaluations will be prepared by the MPO Board Chair and Employee including any recommended merit wage adjustment consistent with the procedure stated in Section 7. If the MPO Board approves a merit wage adjustment, it will become effective upon the date the MPO Board approves the merit wage adjustment amount and will be processed with the Employee's next regular scheduled paycheck. An updated performance evaluation plan for Employee will be developed in good faith between the MPO and Employee and adopted by the MPO no later than its first regular meeting in December of each year of the Agreement.

Section 9: Hours of Work

All duties required hereunder shall be performed by the Employee personally, or through the assistance of such MPO employees as may be made available from time-to-time, which the Employee shall assume full responsibility; provided, however, that nothing herein shall be deemed to absolve the Employee of personal responsibility for the duties set forth herein. The Employee shall be available to perform said duties while working a minimum of a forty (40) hour work week and shall be available to accomplish such duties, as needed, during said period of employment

consistent with the duties of an “exempt” employee under the Fair Labor Standards Act, 29 U.S.C. §§ 201, et seq., as amended. Except as otherwise directed by the MPO, the manner and means of performance of the duties herein shall be determined by the Employee. All acts performed by the Employee, explicitly or implicitly, on behalf of the MPO, within the scope of this employment, shall be deemed authorized by the MPO as its agent, except that any act which constitutes willful misconduct or which may be unlawful shall be deemed to be an individual act of the Employee without authority of the MPO or the County.

Section 10: Outside Activities

The Employee agrees to remain in the exclusive employ of the MPO while in its employ, unless the MPO authorizes limited outside employment not in conflict with the Employee’s duty with the MPO.

Section 11: Automobile and Cellular Phone

The MPO shall provide a cellular phone and service for the Employee’s business use and access to a Collier County motor pool automobile for travel to MPO related functions.

Section 12: Comprehensive Benefit Package.

The MPO agrees to provide the same comprehensive benefit package to the Employee which is currently provided to other Director level personnel of Collier County Government. The MPO also agrees to execute all necessary agreements provided by Nationwide Retirement System, ICMA Retirement Corporation (ICMA-RC), NACO Public Employees Benefit Services Corporation or such other qualified 457 deferred employee retirement plan should Employee elect to participate in such retirement plans. Employee shall be eligible for up to a \$1,500.00 cash match to one of those eligible 457 deferred retirement plan.

Section 13: Vacation, Holiday and Sick Leave

Upon commencement of employment, the Employee shall be entitled to accrue vacation leave in the amount of four work weeks (20 days) annually. With the exception of the annual amount of leave that can be accrued, vacation leave shall otherwise be treated consistent with the vacation leave policy adopted by Collier County Government. Vacation leave shall be utilized in a manner that does not disrupt the orderly management of the MPO office and be requested consistent with MPO policy. Sick leave will accrue at the same frequency and in the same manner as currently provided to personnel of Collier County Government, and the Employee will be entitled to eleven (11) paid holidays annually, payable on the dates observed by the Board of County Commissioners Agency. The employee is also eligible for 16 personal leave hours with pay per calendar year, which are credited at the time of hire and at the beginning of each calendar year thereafter.

Section 14: Professional Dues and Subscriptions

The MPO agrees to pay for the reasonable and customary professional dues and subscriptions of Employee necessary for her continued professional development, including pertinent national, regional, state, and local associations and organizations.

Section 15: Professional Development

The MPO agrees to pay for the reasonable and customary travel expenses (as set forth in MPO policy and Florida law) for the Employee's necessary travel and attendance at any meetings and conferences approved by the MPO in advance of such travel.

Section 16: Indemnification

In addition to that required under State and local law, the MPO shall defend, save harmless, and indemnify Employee against any tort, professional liability claim or demand or other legal action, including costs and attorneys' fees relating thereto whether groundless or otherwise, arising out of an alleged negligent act or omission occurring in the performance of Employee's duties as Executive Director, subject to the limits found in §768.28, Fla. Stat.

Section 17: Other Terms and Conditions of Employment

The MPO and the Employee shall fix any such other terms and conditions of employment as they may determine from time to time, relating to the performance of Employee, provided such terms and conditions are not inconsistent with or in conflict with the provisions of this Agreement or any other law.

Section 18: Notices

Notices pursuant to this Agreement shall be in writing, transmitted by personal service or by deposit in the custody of the United States Postal Service, postage prepaid, addressed as follows:

- (1) AUTHORITY: Collier MPO
2885 South Horseshoe Drive
Naples, Florida 34104
- (2) EMPLOYEE: Anne M. McLaughlin
2885 South Horseshoe Drive
Naples, Florida 34104
~~110 Calle Royale~~
~~Santa Fe, New Mexico 87505~~

Notices shall be deemed effective upon delivery or receipt.

Section 19: General Provisions

- A. The text herein shall constitute the entire agreement between the parties.
- B. This Agreement is a personal services contract and neither this Agreement nor Employee's obligations under this Agreement are assignable.
- C. If any provision, or any portion thereof, contained in this Agreement is held unconstitutional, invalid or unenforceable, the remainder of this Agreement, or portion thereof, shall be deemed severable, shall not be affected, and shall remain in full force and effect.
- D. This Agreement shall be deemed to have been made in Collier County, and shall be governed by and construed under the laws of the State of Florida. The parties shall attempt in good faith to resolve any dispute concerning this Agreement through negotiation between authorized representatives. If these efforts are not successful, either party may then file an action in the Circuit Court of Collier County, which shall be the exclusive venue with respect to any disputes arising out of this Agreement.

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SIGNATURE PAGE TO FOLLOW



There are no other amendments to the Employment Agreement except those set forth herein. This Second Amendment shall only be amended by mutual written consent of the parties hereto and supersede any previous amendments agreed upon by the parties.

IN WITNESS WHEREOF, the MPO has caused this Second Amendment to the Employment Agreement to be signed and executed by its Chairman, and the Employee has signed and executed this agreement, both in duplicate, on the month, date and year first above written.

COLLIER METROPOLITAN PLANNING ORGANIZATION

Attest:

By: _____

By: _____
Commissioner William L. McDaniel, Jr.,
MPO Chairman

WITNESSES:

EMPLOYEE

Print Name: _____

By: _____
Anne M. McLaughlin, Executive Director

Print Name: _____

Approved as to form and
legality:

Scott R. Teach
Deputy County Attorney

Attachment: Amendment 2 to Employment Agreement MPO (4980 : Approve Second Amendment to Executive Director's Employment



**AMENDMENT NO. 1 TO COLLIER MPO EXECUTIVE DIRECTOR
EMPLOYMENT AGREEMENT – EXTENSION OF TERM**

THIS AMENDMENT NO. 1 TO COLLIER MPO EXECUTIVE DIRECTOR EMPLOYMENT AGREEMENT - EXTENSION OF TERM (“Extension”) is made and entered into this 8th day of December 2017, by and between the Collier Metropolitan Planning Organization (hereafter, the “MPO”) and Anne M. McLaughlin, the Executive Director of the MPO (hereafter, the “Employee”).

RECITALS:

WHEREAS, Employer and Employee entered into an Employment Agreement (the “Agreement”) commencing on December 11, 2015, a copy of which is attached hereto; and

WHEREAS, the Agreement provides for the terms and conditions of the Employee’s employment with the MPO, including but not limited to her term of employment, severance pay benefits, employee benefit package, and annual performance; and

WHEREAS, Section 2 of the Agreement further provides that the Parties can amend the provisions of the Agreement when mutually agreed upon in writing, including that the Employee’s current term of employment, which runs through January 12, 2018, may be extended for a period of two (2) years, provided the Employee provides Notice of her interest to renew or extend the Agreement 120 days prior to the expiration of her current term of employment; and

WHEREAS, due to circumstances related to Hurricane Irma, the logistics of preparing priority MPO agenda items for the October and November 2017 meetings, and other similar and related reasons the Employee did not timely submit her Performance Evaluation for the MPO’s consideration at the September meeting (which was cancelled due to the Hurricane) as required by Section 8 of the Agreement; and

WHEREAS, at its November 3, 2017 meeting the MPO by formal motion and a unanimous vote directed that the Employee’s Agreement be extended through March 31, 2018, to allow the Employee to have her Performance Evaluation addressed at the MPO’s February 2018 meeting; thereby preventing the termination of the Employee’s contract at the end of January, and allowing for a further extension of her Agreement through consideration of a second formal amendment thereto at the MPO’s March 2018 meeting.



WITNESSETH:

NOW, THEREFORE, in consideration of Ten Dollars (\$10.00) and other good and valuable consideration exchanged amongst the Employer and Employee, and in consideration of the covenants contained herein, the Employer and Employee agree as follows:

1. The above RECITALS are true and correct and are hereby expressly incorporated herein by reference as if set forth fully below.
2. The termination date of the Agreement as set forth in Section 2 is hereby extended to March 31, 2018.
3. The Employee's Performance Evaluation shall take place at the February 2018 MPO meeting, with further Board direction at that time regarding further amending the Agreement's term consistent with Section 2.
3. Except as modified by this Extension, the Agreement shall remain in full force and effect. If there is a conflict between the terms of this Extension and the Agreement, the terms of this Extension shall prevail.

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SIGNATURE PAGE TO FOLLOW



IN WITNESS WHEREOF, the MPO has caused this Extension to be signed and executed on its behalf by its Chair, and the Employee has signed and executed this Extension, both in duplicate, the month, date and year first written above.

COLLIER METROPOLITAN PLANNING ORGANIZATION

Attest:

By: [Signature]

By: [Signature]
Commissioner Penny Taylor
MPO Chair

WITNESSES:

[Signature]
Print Name: Brandy Otero

[Signature]
Print Name: Connie Deane

EMPLOYEE

By: [Signature]
Anne M. McLaughlin, Executive Director

Approved as to form and legality:

[Signature]
Scott R. Teach
Deputy County Attorney



Attachment: Amendment 1 to Executive Director Employment Agreement (4980 : Approve Second Amendment to Executive Director's

**EMPLOYMENT AGREEMENT
BETWEEN ANNE M. McLAUGHLIN AND THE
COLLIER METROPOLITAN PLANNING ORGANIZATION**

THIS EMPLOYMENT AGREEMENT is entered into this 8th day of December 2015, by and between Anne M. McLaughlin, the Executive Director of the Collier Metropolitan Planning Organization (hereafter, the "Employee"), and the Collier Metropolitan Planning Organization (hereafter, the "MPO").

WITNESSETH

WHEREAS, the MPO desires to employ the services of Employee as its Executive Director; and

WHEREAS, it is the desire of the MPO to provide certain benefits, to establish certain conditions of employment and to set working conditions for this position; and

WHEREAS, Employee desires to accept employment as the Executive Director of the MPO.

NOW, THEREFORE, in consideration of the mutual promises and covenants contained herein, the parties agree as follows:

Section 1. Role and Duties The MPO agrees to employ Employee as its Executive Director, and Employee agrees to perform the functions and duties thereof, as are now and may in the future be assigned and directed by the MPO. Until so amended, the role and duties of the Executive Director shall include but not be limited to the following:

- a. The Employee shall act as the Chief Administrative Officer of the MPO, directly reporting and responsible to the MPO Board and responsible for the day to day implementation of MPO programs and activities including MPO staff selection and supervision. The Employee shall devote full time efforts to the MPO and its mission. The Employee shall also direct and supervise professional service providers engaged by the MPO.
- b. The Employee shall perform such other associated and legally required duties and functions, as may now and in the future be required by Interlocal Agreement, MPO Staff Services Agreement, Florida Statutes § 339.175, any other applicable Florida laws, and such other legally permissible and proper duties and functions as the MPO shall from time to time assign or direct.
- c. Formulate and prepare recommendations regarding policies, rules and regulations, directives, programs, agreements, and all other documents which require consideration, action, or approval of the MPO.
- d. Prepare annual budgets and the annual reports for approval of the MPO.

- e. The Employee agrees to perform all such functions and duties, faithfully, competently, professionally and promptly to the best of the Employee's ability.
- d. A copy of the Classification Specifications for the Executive Director position is attached hereto as Exhibit "A" and is incorporated by reference to provide further description of the duties expected from persons employed in this position.

Section 2: Term

- A. Employee agrees to remain in the exclusive employ of the MPO from the start date of her employment on January 12, 2016 through and until January 12, 2018; and neither to accept other employment nor to become employed by any other employer until termination of employment pursuant to this Agreement, except as provided in Section 10, *infra*.
- B. Neither party has any right to renew or extend this Agreement. If the Employee desires to renew and extend this Agreement, the Employee shall place the request in writing for the MPO's consideration at a regularly scheduled MPO meeting no later than 120 days prior to the expiration of the current term of employment. If the MPO accepts the Employee's request, the term of this Agreement may be extended for a period of two (2) years through a mutual written amendment to this agreement executed by the MPO and the Employee. Although both parties retain the right not to extend this Agreement with or without reason or cause, it is contemplated that the MPO will base its decision on the question of whether or not to grant the extension of the term of this Agreement on (1) the Employee's performance and (2) the Employee's ability to successfully achieve goals mutually developed and agreed to by the Employee and the MPO.
- C. Elements of this Agreement may be changed at any time when mutually agreed upon in writing by the MPO and the Employee.

Section 3: Suspension

The MPO may suspend the Employee with full pay and benefits at any time during the term of this Agreement, but only if:

- A. A majority of the MPO and Employee agree; or
- B. After a public hearing, a majority of the MPO votes to suspend Employee for just cause; provided, however, that the Employee shall have been given written notice setting forth any charges at least ten (10) days prior to such hearing by the MPO's members bringing such charges. Just cause shall include only willful misconduct or willful failure or disregard of Employee's duties under this Employment Agreement.

Section 4: Termination and Severance Pay

Subject to the provisions of this Agreement, the Executive Director may be terminated, with or without cause, by a majority vote of the MPO.

In the event this Employment Agreement with Employee is terminated by the MPO before expiration of the aforesaid term of employment and during such time that Employee is willing and able to perform duties under this Agreement, then, and only in that event, the MPO agrees to pay Employee, in addition to any amounts then due Employee including any unused vacation leave, a lump sum payment within ten (10) working days after the effective date of termination in an amount equal to four (4) weeks of Employee's annual base salary at the rate effective on the date of termination, less any normally required deductions. Sick leave is not a compensable expense and is expressly not included in such a payout.

In the event Employee is convicted of any felony or of any crime involving moral turpitude, or fired for an act of misconduct as defined in Florida Statutes § 443.036(29), the MPO may terminate Employee's employment without notice and without any obligation to pay any aggregate severance sum or to provide post-termination insurance benefits described in the above paragraphs.

Section 5: Resignation

In the event Employee voluntarily resigns the position with the MPO before expiration of the term of employment, then Employee shall give the MPO thirty (30) days advance written notice. If Employee voluntarily resigns, providing MPO with less than thirty (30) days notice, Employee shall forfeit payment for any accrued leave otherwise due and owing.

Section 6: Disability

If Employee is permanently disabled or is otherwise unable to perform the duties because of sickness, accident, injury, mental incapacity or health for a period of four (4) successive weeks beyond any accrued leave, the MPO shall have the option to terminate this Agreement, subject to the severance pay requirements of Section 4.

Section 7: Salary

- A. MPO agrees to pay Employee for services rendered pursuant hereto an annual base salary of \$92,700.00, payable in bi-weekly installments.
- B. The MPO and Employee shall negotiate in good faith to establish, within one hundred and twenty (120) days after execution of this Agreement, a performance-based merit plan through which the Employee may be eligible for a merit adjustment upon the successful completion of measurable goals and objectives to be completed or attained by the Employee during each fiscal year of this Agreement. The percentage of any annual performance-based merit adjustment to the Employee's base pay or such one-time lump sum amount shall be set by the

MPO Board. The MPO Board may choose to adopt any merit pay adjustment policy offered by Collier County Government to its employees.

- C. On the date that general wage adjustments (i.e., cost of living adjustments, special study pay adjustments, etc.) are granted generally to Collier County Government employees, the Employee's base salary shall likewise be modified to reflect such general wage adjustments. The timing of any such wage adjustments is for administrative purposes only as the Employee is not a County Employee but rather reports directly to the MPO and there is no guarantee that the Employee will receive such general wage adjustments.

Section 8: Performance Evaluation

The MPO shall review and evaluate the performance of the Employee in accordance with the performance-based merit plan as provided in Section 7. Written evaluations based on said performance plan shall be provided by each voting MPO Board member to Employee by no later than 48 hours prior to the scheduled September MPO meeting for each year of this Agreement; and are to be incorporated as part of the Employee's annual performance evaluation, which shall take place during the MPO's regular October meeting. A summary of all evaluations will be prepared by the MPO Board Chair and Employee including any recommended merit wage adjustment consistent with the procedure stated in Section 7. If the MPO Board approves a merit wage adjustment, it will become effective upon the date the MPO Board approves the merit wage adjustment amount and will be processed with the Employee's next regular scheduled paycheck. An updated performance evaluation plan for Employee will be developed in good faith between the MPO and Employee and adopted by the MPO no later than its first regular meeting in December of each year of the Agreement.

Section 9: Hours of Work

All duties required hereunder shall be performed by the Employee personally, or through the assistance of such MPO employees as may be made available from time-to-time, which the Employee shall assume full responsibility; provided, however, that nothing herein shall be deemed to absolve the Employee of personal responsibility for the duties set forth herein. The Employee shall be available to perform said duties while working a minimum of a forty (40) hour work week and shall be available to accomplish such duties, as needed, during said period of employment consistent with the duties of an "exempt" employee under the Fair Labor Standards Act, 29 U.S.C. §§ 201, et seq., as amended. Except as otherwise directed by the MPO, the manner and means of performance of the duties herein shall be determined by the Employee. All acts performed by the Employee, explicitly or implicitly, on behalf of the MPO, within the scope of this employment, shall be deemed authorized by the MPO as its agent, except that any act which constitutes willful misconduct or which may be unlawful shall be deemed to be an individual act of the Employee without authority of the MPO or the County.

Section 10: Outside Activities

The Employee agrees to remain in the exclusive employ of the MPO while in its employ, unless the MPO authorizes limited outside employment not in conflict with the Employee's duty with the MPO.

Section 11: Automobile and Cellular Phone

The MPO shall provide a cellular phone and service for the Employee's business use and access to a Collier County motor pool automobile for travel to MPO related functions.

Section 12: Comprehensive Benefit Package.

The MPO agrees to provide the same comprehensive benefit package to the Employee which is currently provided to other Director level personnel of Collier County Government. The MPO also agrees to execute all necessary agreements provided by Nationwide Retirement System, ICMA Retirement Corporation (ICMA-RC), NACO Public Employees Benefit Services Corporation or such other qualified 457 deferred employee retirement plan should Employee elect to participate in such retirement plans. Employee shall be eligible for up to a \$1,500.00 cash match to one of those eligible 457 deferred retirement plan.

Section 13: Vacation, Holiday, Personal and Sick Leave

Upon commencement of employment, the Employee shall be entitled to accrue vacation leave in the amount of four work weeks (20 days) annually. With the exception of the annual amount of leave that can be accrued, vacation leave shall otherwise be treated consistent with the vacation leave policy adopted by Collier County Government. Vacation leave shall be utilized in a manner that does not disrupt the orderly management of the MPO office and be requested consistent with MPO policy. Sick leave will accrue at the same frequency and in the same manner as currently provided to personnel of Collier County Government, and the Employee will be entitled to eleven (11) paid holidays annually, payable on the dates observed by the Board of County Commissioners Agency. The employee is also eligible for 16 personal leave hours with pay per calendar year, which are credited at the time of hire and at the beginning of each calendar year thereafter.

Section 14: Professional Dues and Subscriptions

The MPO agrees to pay for the reasonable and customary professional dues and subscriptions of Employee necessary for continued professional development, including pertinent national, regional, state, and local associations and organizations.

Section 15: Professional Development

The MPO agrees to pay the reasonable and customary travel expenses (as set forth in MPO policy and Florida law) for the Employee's necessary travel and attendance at any meetings and conferences approved by the MPO in advance of such travel.

Section 16: Indemnification

In addition to that required under State and local law, the MPO shall defend, save harmless, and indemnify Employee against any tort, professional liability claim or demand or other legal action, including costs and attorneys' fees relating thereto whether groundless or otherwise, arising out of an alleged negligent act or omission occurring in the performance of Employee's duties as Executive Director, subject to the limits found in §768.28, Fla. Stat.

Section 17: Other Terms and Conditions of Employment

The MPO and the Employee shall fix any such other terms and conditions of employment as they may determine from time to time, relating to the performance of Employee, provided such terms and conditions are not inconsistent with or in conflict with the provisions of this Agreement or any other law.

The MPO is currently undergoing a process of reviewing its business operations and, based on the result of that review, an amendment to this Agreement may be necessary to comport with any Board approved changes. The parties agree to act in good faith and to use their best efforts to amend this Agreement to address any modifications resulting from a change in the MPO's business operations that do not materially work to the detriment of either party or otherwise substantially alter the previously established obligations of the parties under this Agreement.

Section 18: Notices

Notices pursuant to this Agreement shall be in writing, transmitted by personal service or by deposit in the custody of the United States Postal Service, postage prepaid, addressed as follows:

- (1) AUTHORITY: Collier MPO
2885 South Horseshoe Drive
Naples, Florida 34104
- (2) EMPLOYEE: Anne M. McLaughlin
110 Calle Royale
Santa Fe, New Mexico 87505

Notices shall be deemed effective upon delivery or receipt.

Section 19: General Provisions

- A. The text herein shall constitute the entire agreement between the parties.
- B. This Agreement is a personal services contract and neither this Agreement nor Employee's obligations under this Agreement are assignable.

- C. If any provision, or any portion thereof, contained in this Agreement is held unconstitutional, invalid or unenforceable, the remainder of this Agreement, or portion thereof, shall be deemed severable, shall not be affected, and shall remain in full force and effect.

- D. This Agreement shall be deemed to have been made in Collier County, and shall be governed by and construed under the laws of the State of Florida. The parties shall attempt in good faith to resolve any dispute concerning this Agreement through negotiation between authorized representatives. If these efforts are not successful, either party may then file an action in the Circuit Court of Collier County, which shall be the exclusive venue with respect to any disputes arising out of this Agreement.

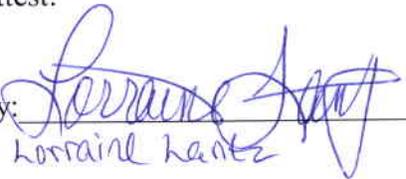
REMAINDER OF PAGE INTENTIONALLY LEFT BLANK
SIGNATURE PAGE TO FOLLOW



IN WITNESS WHEREOF, the MPO has caused this Agreement to be signed and executed by its Chairman, and the Employee has signed and executed this Agreement, both in duplicate, as of the month, date and year first above written.

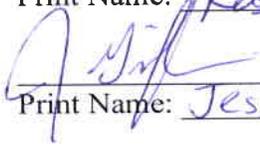
COLLIER METROPOLITAN PLANNING ORGANIZATION

Attest:

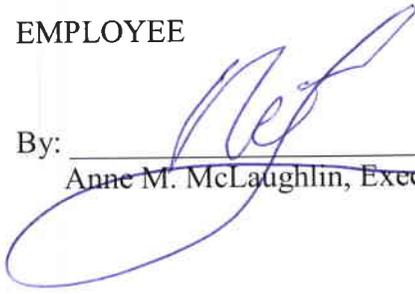
By: 
Lorraine Hantz

By: 
Councilman Sam J. Saad, III
MPO Chairman

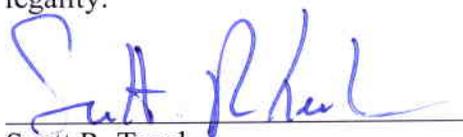
WITNESSES:


Print Name: Rosa Kozub

Print Name: Jessica Griffin

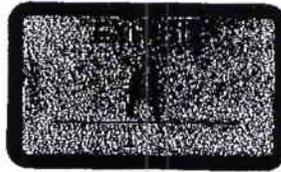
EMPLOYEE

By: 
Anne M. McLaughlin, Executive Director

Approved as to form and legality:


Scott R. Teach
Deputy County Attorney

Attachment: Anne McLaughlin Executed Employment Agreement (4980 : Approve Second Amendment to Executive Director's Employment



Class Code:
Pay Grade: NA

COLLIER MPO CLASSIFICATION SPECIFICATION

CLASSIFICATION TITLE: EXECUTIVE DIRECTOR - MPO

PURPOSE OF CLASSIFICATION

The purpose of this classification is to supervise planners and support staff in the preparation, update and maintenance of short and long-range multi-modal transportation plan, including a 20-year long-range transportation plan for Collier County. Provides staff support to the MPO Board, the Local Coordinating Board for the Transportation Disadvantaged and advisory committees. Directs the MPO planning program through the annual development and implementation of the Unified Planning Work Program. Ensures compliance with federal/state requirements for the annual adoption of a Transportation Improvement Program. Participates in activities of the Alternative Transportation Modes Department. Acts as a liaison to the Florida Department of Transportation on planning and work program issues.

Administers personnel matters in the MPO section including hiring, training, guidance and supervision of employees.

Evaluates and recommends courses of action for attaining desired objectives for MPO.

ESSENTIAL FUNCTIONS

The following duties are normal for this position. The omission of specific statements of the duties does not exclude them from the classification if the work is similar, related, or a logical assignment for this classification. Other duties may be required and assigned.

Manages staff support to the Citizens' Advisory Committee, Technical Advisory Committee, MPO Board, Pathway Advisory Committee and the Local Coordinating Board for the Transportation Disadvantaged. Maintains committee bylaws and membership. Schedules meetings and documents committee and Board actions.

Maintains proactive management of the Collier MPO and open lines of communication with the Collier MPO Board members; including providing the Chairman with an update in advance of all MPO meetings.

Acts as liaison to local governments, representatives of state and citizens organizations on transportation matters including the MPO's long-range transportation plan.

Develops, maintains and implements a public involvement program to educate, inform and solicit comment from citizens and community agencies.

Prepares grant applications, including project scope of work and budget, for submittal to the Federal Highway Administration, Federal Transit Administration, Florida Commission for the Transportation Disadvantaged and the Florida Department of Transportation.

Manages the grant process including execution, documentation of labor and direct and indirect costs, preparation and submission of quarterly invoices and the reconciliation of grant expenditures and revenue during the fiscal year close out.

Prepares budget requests and monitors budget expenditures based upon the MPO's approved budget.

Collier MPO • Executive Director - MPO**Code:**

Manages the support staff that maintains a transportation database of County roads, which includes various transportation statistical data, such as traffic volumes, peak hour factors, turning movement counts and population data.

Uses the Collier County Standard Transportation Model to forecast future traffic demand on County roads.

Assist project consultants in the development of annual forecasts for Collier County road projects and assists in the review of project traffic reports.

Oversees MPO projects including the Long Range Transportation Plan Update, Congestion Management System analysis data collection projects and transportation sub-area studies.

Assists other staff in roadway construction and development project review consistent with local, state and federal standards. Reviews projects for bicycle, pedestrian and transit needs consistent with policies and procedures identified in the Transit Development Plan, the Collier County Comprehensive Pathway Plan, the Long Range Transportation Plan and the Land Development Code.

Prepares and delivers presentations on MPO activities to the MPO Board, the Collier County Board of County Commissioners and other interested groups. Responds to citizens' questions or concerns relating to MPO activities.

Supervises, directs and evaluates assigned staff, processing employee concerns and problems, directing work, counseling, disciplining and completing performance appraisals. Recruits, evaluates and selects qualified staff.

Operates a personal computer, telephones, copiers and other general office equipment as necessary to complete essential functions, to include the use of word processing, spreadsheet, database, or other system software.

ADDITIONAL FUNCTIONS

Performs general clerical work, including copying, preparing vouchers and purchase orders and working with other departments to deliver joint work projects.

Performs other related duties as required.

In the event of a declared state of emergency, employees in this classification may be called to work during days or hours other than those for which they are regularly scheduled.

MINIMUM QUALIFICATIONS

Master's Degree in Planning or closely related field; ten years of experience in transportation planning, administration, management and fiscal management; with at least two years direct experience with an MPO; or any equivalent combination of education, training, and experience which provides the requisite knowledge, skills, and abilities for this job. Must possess and maintain valid Florida driver's license. American Institute of Certified Planners (AICP) certification is desired.

Knowledge of the 3-C Urban Transportation Planning Process, the Travel Demand Forecasting Process and familiarity with state and federal grant guidelines and procedures.



PERFORMANCE APTITUDES

Data Utilization: Requires the ability to evaluate, audit, deduce and/or assess data using established criteria. Includes exercising discretion in determining actual or probable consequences and in referencing such evaluation to identify and select alternatives.

Human Interaction: Requires the ability to apply principles of persuasion and/or influence over others in a supervisory capacity. Must be able to function in a managerial capacity.

Equipment, Machinery, Tools, and Materials Utilization: Requires the ability to operate, maneuver and/or control the actions of equipment, machinery, tools, and/or materials used in performing essential functions.

Verbal Aptitude: Requires the ability to utilize a wide variety of reference, descriptive, advisory and/or design data and information.

Mathematical Aptitude: Requires the ability to perform addition, subtraction, multiplication and division; ability to calculate decimals and percentages; may include ability to perform mathematical operations involving basic algebraic principles and formulae and basic geometric principles and calculations.

Functional Reasoning: Requires the ability to apply principles of influence systems, such as motivation, incentive, and leadership, and to exercise independent judgment to apply facts and principles for developing approaches and techniques to resolve problems.

Situational Reasoning: Requires the ability to exercise judgment, decisiveness and creativity in situations involving the evaluation of information against sensory, judgmental or subjective criteria, as opposed to that which is clearly measurable or verifiable.

ADA COMPLIANCE

Physical Ability: Tasks require the ability to exert light physical effort in sedentary to light work, but which may involve some lifting, carrying, pushing and/or pulling of objects and materials of light weight (5-10 pounds). Tasks may involve extended periods of time at a keyboard or workstation.

Sensory Requirements: Some tasks require the ability to perceive and discriminate sounds and visual cues or signals. Some tasks require the ability to communicate orally.

Environmental Factors: Essential functions are regularly performed without exposure to adverse environmental conditions.

Collier MPO is an Equal Opportunity Employer. In compliance with the Americans with Disabilities Act, Collier MPO will provide reasonable accommodations to qualified individuals with disabilities and encourages both prospective and current employees to discuss potential accommodations with the employer.

EXECUTIVE SUMMARY

Approval of Reappointments to Bicycle and Pedestrian Advisory Committee for Joe Bonness, Jane Cheffy, and Dr. Mort Friedman

OBJECTIVE: For the Board to approve three reappointments to the Bicycle and Pedestrian Advisory Committee (BPAC) for Joe Bonness, Jane Cheffy, and Dr. Mort Friedman

CONSIDERATIONS: The three reappointments are for committee members whose two-year terms expire on March 11, 2018. The reappointments support the geographic diversity and continuity of the committee during the MPO's development of the Bicycle & Pedestrian Master Plan. All BPAC members are considered as "At-Large" appointees, but in the interest of showing the geographic diversity of the committee, the jurisdiction within which they reside is identified as well as memberships in local clubs or committees involved in bicycle and pedestrian advocacy, to the best of staff's knowledge:

- Joe Bonness, Chair, District 2, Naples Pathways Coalition
- Jane Cheffy, City of Naples, District 4, Naples Velo
- Dr. Mort Friedman, District 4

The letters requesting reappointment and updated Advisory Committee Application forms will be distributed at the Board meeting.

COMMITTEE RECOMMENDATIONS: n/a

STAFF RECOMMENDATIONS: That the Board approve reappointments to the BPAC for Joe Bonness, Jane Cheffy, and Dr. Mort Friedman

Prepared By: Anne McLaughlin, MPO Executive Director

03/09/2018

COLLIER COUNTY
Metropolitan Planning Organization

Item Number: 5.C**Doc ID:** 4985**Item Summary:** Approval of Reappointments to Bicycle and Pedestrian Advisory Committee for Joe Bonness, Jane Cheffy, and Dr. Mort Friedman**Meeting Date:** 03/09/2018**Prepared by:**

Title: Planner, Senior – Metropolitan Planning Organization

Name: Brandy Otero

03/01/2018 10:06 AM

Submitted by:

Title: Executive Director - MPO – Metropolitan Planning Organization

Name: Anne McLaughlin

03/01/2018 10:06 AM

Approved By:**Review:**

Metropolitan Planning Organization	Brandy Otero	MPO Analyst Review	Completed	03/01/2018 10:06 AM
Metropolitan Planning Organization	Anne McLaughlin	MPO Executive Director Review	Completed	03/01/2018 10:25 AM
Metropolitan Planning Organization	Anne McLaughlin	Meeting Pending		03/09/2018 9:00 AM

EXECUTIVE SUMMARY

Citizens Advisory Committee Chair Report

OBJECTIVE: For the MPO Board to receive a report from the Chair of the Citizens Advisory Committee related to recent committee actions and recommendations.

CONSIDERATIONS: Staff prepared the attached written report. The CAC Chair will provide a verbal report providing additional information regarding recent committee activities.

COMMITTEE RECOMMENDATION: Committee recommendations are reported in the Executive Summary for each action item, and may be elaborated upon by the Chair in his/her report to the Board.

STAFF RECOMMENDATION: Not applicable

Prepared by: Eric Ortman, Senior Planner

ATTACHMENT(S)

1. February 2018 CAC Chair Report (PDF)

03/09/2018

**COLLIER COUNTY
Metropolitan Planning Organization**

Item Number: 8.A.1**Doc ID:** 4972**Item Summary:** Citizen Advisory Committee Chair Report**Meeting Date:** 03/09/2018**Prepared by:**

Title: Planner, Senior – Metropolitan Planning Organization

Name: Brandy Otero

02/28/2018 2:24 PM

Submitted by:

Title: Executive Director - MPO – Metropolitan Planning Organization

Name: Anne McLaughlin

02/28/2018 2:24 PM

Approved By:**Review:**

Metropolitan Planning Organization	Brandy Otero	MPO Analyst Review	Completed	02/28/2018 2:24 PM
Metropolitan Planning Organization	Anne McLaughlin	MPO Executive Director Review	Completed	02/28/2018 2:56 PM
Metropolitan Planning Organization	Anne McLaughlin	Meeting Pending		03/09/2018 9:00 AM

CAC Committee Chair Report

The Citizens Advisory Committee (CAC) met on February 26, 2018 and a quorum was achieved.

FDOT provided an update on Vision Zero safety targets. Mr. Ortman provided the MPO update, noting that as a result of the US 41 Road Safety Audit (RSA) completed by FDOT in 2015, an additional \$1.5 million in safety improvements on US 41 between Courthouse Shadows and Davis Boulevard are programmed to be included when the road is resurfaced in FY21, prompting a lengthy discussion of safety conditions on Main Street in Immokalee.

The committee received the following presentations:

- Mr. Blain, Tindale Oliver Associates, gave a presentation on the LRTP Amendment resulting from the proposed Rural Lands West (RLW) development, prompting a discussion on the need to widen Immokalee Road. No action required on the amendment; however, the committee voted (3-2) to not endorse a motion to begin referring to Immokalee Rd as either SR82 or CR858 to avoid confusing two segments of the roadway.
- Staff presentation on new draft two-year UPWP. No action requested. No comments made.
- Staff presentation on draft FY2019-2023 TIP. No action required. Committee commented at length on safety improvements scheduled for construction in FY19 on Main St in Immokalee. A committee member commented that Immokalee is once again shortchanged in the TIP.
- Staff presentation on draft scope for 2045 LRTP. A committee member commented on the need to refer to passenger drones in addition to automated and connected vehicles. No formal action taken.

The committee took the following actions on items going before the Board:

- Endorsed the de-obligation of federal planning funds for the current UPWP

EXECUTIVE SUMMARY

Technical Advisory Committee Chair Report

OBJECTIVE: For the MPO Board to receive a report from the Chair of the Technical Advisory Committee related to recent committee actions and recommendations.

CONSIDERATIONS: Staff prepared the attached written report. Staff typically provides a verbal report at the MPO Board meeting, although the Chair is welcome to do so.

COMMITTEE RECOMMENDATION: Committee recommendations are reported in the Executive Summary for each action item, and may be elaborated upon by the Chair in his/her report to the Board.

STAFF RECOMMENDATION: Not applicable

Prepared by: Anne McLaughlin, MPO Director

ATTACHMENT(S)

1. February 2018 TAC Chair Report (PDF)

03/09/2018

**COLLIER COUNTY
Metropolitan Planning Organization**

Item Number: 8.B.1**Doc ID:** 4973**Item Summary:** Technical Advisory Committee Chair Report**Meeting Date:** 03/09/2018**Prepared by:**

Title: Planner, Senior – Metropolitan Planning Organization

Name: Brandy Otero

02/28/2018 2:41 PM

Submitted by:

Title: Executive Director - MPO – Metropolitan Planning Organization

Name: Anne McLaughlin

02/28/2018 2:41 PM

Approved By:**Review:**

Metropolitan Planning Organization	Brandy Otero	MPO Analyst Review	Completed	02/28/2018 2:41 PM
Metropolitan Planning Organization	Anne McLaughlin	MPO Executive Director Review	Completed	03/01/2018 10:27 AM
Metropolitan Planning Organization	Anne McLaughlin	Meeting Pending		03/09/2018 9:00 AM

TAC Committee Chair Report

The Technical Advisory Committee (TAC) met on February 26, 2018 and a quorum was achieved.

Ms. Peters, FDOT MPO Liaison, following up on the January committee meeting, reported that FDOT will not issue a letter or other form of written communication regarding potential future outcomes of adopting FDOT's Vision Zero performance targets but to "stay tuned" because FDOT will keep the MPOs informed as more information becomes available. Ms. Peters reiterated that FDOT is not following the interim numbers that were included in last month's committee packet. Ms. Peters reported on-going discussions with Christopher Simpron, FDOT, who will present the Interchange Access Request (IAR) procedures for new or proposed interchanges at the April Board meeting. At that time, Chris could also answer questions regarding FDOT's interim interchange study.

The Committee took the following action:

- Endorsed the draft UPWP de-obligation with the understanding that an additional \$6,000 would be de-obligated from the Bicycle and Pedestrian Master Plan in order to roll those funds over into the new fiscal year to facilitate extending the contract into the first quarter of FY2019; and that the final de-obligation amount, which is pending review by the County Grants Office, will be provided to the committee as a distribution item at a future meeting
- After receiving a brief introduction regarding the TMC Colocation Study produced by FDOT, discussed the recommendation to co-locate facilities at some length and voted to approve a motion to move forward with sharing data and video but not to endorse the TMC Colocation Study for the reasons put forward by City of Naples staff:
 - Redundancy (in terms of having two separate Traffic Management Centers) is an important attribute to preserve and concerns with staff's ability to provide City residents the same level of service they presently achieve by being co-located with other city staff and their ability to facilitate quick response times on the part of police, fire, EMS for pedestrian as well as vehicular traffic
- After the meeting, the Executive Director received an email from the County Traffic Operations representative, who had to leave the meeting before the voting took place, stating his support for the TMC Colocation Study recommendations

The Committee received reports and presentations on the following items:

- Regarding the 2040 LRTP Amendment, received a presentation on the model runs for the Needs Plan, preliminary work on the Cost Feasible Plan and a revised project schedule; however the committee was not asked to endorse these for public review because new network assumptions are still in the process of being tested at the County's request
- Draft 2018/19 – 2019/20 UPWP – asked a number of clarifying comments but was not asked to take formal action
- Commented on the draft Scope for the 2045 LRTP:
 - Approach the issue of coastal sea level rise from the standpoint of coordinating with ongoing City and County studies rather than perform an additional analysis that would duplicate efforts and consume funding that would be better spent on addressing transportation needs

- Approach Automated and Connected Electric Vehicles Shared mobility (ACES) guidance pending from FDOT from the standpoint of describing negative impacts as well as projected positive ones
- Draft Narrative and Project Sheets for 2019-2023 TIP – asked questions to clarify why MPO staff chose to produce the TIP in-house this year; refrained from offering comments on their preferred organization of TIP project sheets

The next meeting of the TAC is scheduled to be held at 9:30 a.m. on Monday, March 26, 2018.

EXECUTIVE SUMMARY

Bicycle and Pedestrian Advisory Committee Chair Report

OBJECTIVE: For the MPO Board to receive a report from the Chair of the Bicycle and Pedestrian Advisory Committee related to recent committee actions and recommendations.

CONSIDERATIONS: Staff prepared the attached written report. The BPAC Chair will provide a verbal report providing additional information regarding recent committee activities.

COMMITTEE RECOMMENDATION: Committee recommendations are reported in the Executive Summary for each action item, and may be elaborated upon by the Chair in his/her report to the Board.

STAFF RECOMMENDATION: Not applicable

Prepared by: Eric Ortman, Senior Planner

ATTACHMENT(S)

1. February 2018 BPAC Chair Report (PDF)

03/09/2018

**COLLIER COUNTY
Metropolitan Planning Organization**

Item Number: 8.C.1**Doc ID:** 4974**Item Summary:** Bicycle and Pedestrian Advisory Committee Chair Report**Meeting Date:** 03/09/2018**Prepared by:**

Title: Planner, Senior – Metropolitan Planning Organization

Name: Brandy Otero

02/28/2018 2:47 PM

Submitted by:

Title: Executive Director - MPO – Metropolitan Planning Organization

Name: Anne McLaughlin

02/28/2018 2:47 PM

Approved By:**Review:**

Metropolitan Planning Organization	Brandy Otero	MPO Analyst Review	Completed	02/28/2018 2:47 PM
Metropolitan Planning Organization	Anne McLaughlin	MPO Executive Director Review	Completed	02/28/2018 3:03 PM
Metropolitan Planning Organization	Anne McLaughlin	Meeting Pending		03/09/2018 9:00 AM

BPAC Committee Chair Report

The Bicycle and Pedestrian Advisory Committee (CAC) met on February 20, 2018 and a quorum was achieved.

Mr. Agacinski, FDOT District 1 Bicycle Pedestrian Coordinator, stated that the Florida Office of Greenways and Trails had approved the 2018-2022 Opportunity and Priority Trail Maps. Mr. Agacinski stated that as of January 1st, the FDOT Design Manual (FDM) had replaced the Plans Preparation Manual; that the FDM incorporates Context Sensitive Design (Complete Streets); and the Standard Plans for Road and Bridge Construction would be effective July 1, 2018

Ms. Lantz, Collier County Transportation Planning, stated that the County had re-submitted a Safe Routes to School (SRTS) application for Shadowlawn Elementary School and that the application was one of nine applications submitted in District 1. Ms. Lantz stated that the County had also re-submitted a TIGER grant application for Immokalee and that award notices would be made in April.

Mr. Wally Bain, Tindale Oliver Associates, presented an update on the Bicycle & Pedestrian Master Plan. Following the presentation, the committee discussed the following items related to the plan:

1. How certain criteria should factor into the project prioritization process including:
 - a. public support and/or lack of public opposition to a project
 - b. population density
 - c. project cost-benefit ratios
2. Potential changes to land use codes and policies that could be made to support the county in its working with developers.
3. The pros and cons of using Strava Data (Strava is a phone app that gathers information on where riders ride but is limited in that it captures only a certain portion (mainly recreational) of the riding public.)
4. The use of audible signal crossing to aid the sight impaired
5. Education of motorists, bicyclists and pedestrians

The committee took the following actions:

1. Elected Mr. Joe Bonness as Chair, and Mr. Joe Adams as Vice-Chair

EXECUTIVE SUMMARY

Local Coordinating Board Chair Report

OBJECTIVE: For the MPO Board to receive a report from the Chair of the Local Coordinating Board (LCB) related to recent LCB actions and recommendations.

CONSIDERATIONS: The LCB meeting is scheduled for March 7, 2018. The Chair will provide a verbal report at the MPO Board meeting to summarize any actions.

COMMITTEE RECOMMENDATION: Committee recommendations are reported in the Executive Summary for each action item, and may be elaborated upon by the Chair in his/her report to the Board.

STAFF RECOMMENDATION: Not applicable

Prepared by: Brandy Otero, Senior Planner

03/09/2018

**COLLIER COUNTY
Metropolitan Planning Organization**

Item Number: 8.D.1**Doc ID:** 4978**Item Summary:** Local Coordinating Board Chair Report**Meeting Date:** 03/09/2018**Prepared by:**

Title: Planner, Senior – Metropolitan Planning Organization

Name: Brandy Otero

02/28/2018 4:09 PM

Submitted by:

Title: Executive Director - MPO – Metropolitan Planning Organization

Name: Anne McLaughlin

02/28/2018 4:09 PM

Approved By:**Review:**

Metropolitan Planning Organization	Brandy Otero	MPO Analyst Review	Completed	02/28/2018 4:09 PM
Metropolitan Planning Organization	Anne McLaughlin	MPO Executive Director Review	Completed	02/28/2018 4:16 PM
Metropolitan Planning Organization	Anne McLaughlin	Meeting Pending		03/09/2018 9:00 AM

EXECUTIVE SUMMARY

Review and Endorse 2040 LRTP Amendment Needs and Cost Feasible Projects for Public Review and Comment

OBJECTIVE: For the Board to review and endorse amendments to the 2040 Long Range Transportation Plan (LRTP) Needs Plan and Cost Feasible Plan.

CONSIDERATIONS: The 2040 LRTP was adopted by the MPO Board on December 11, 2015 and was last modified on October 14, 2016. This proposed amendment to the LRTP seeks to identify changes to the transportation system that are needed as a result of reallocating the 2040 projections of population and employment based on potential changes to the County Growth Management Plan map in the Rural Lands Stewardship Area. The potential changes include an increase in the development potential, and designation, of the Rural Lands West Stewardship Receiving Area. The potential changes are based on the Rural Lands West Master Plan which is under review by Collier County.

On February 9, 2018, the MPO Board approved the reallocation of the Socioeconomic data. The consultant has developed two alternative network options to look at the Randall Blvd corridor with and without the S-curve. This was done based upon previous direction from the MPO Board to include the area as a study area. The lane calls and volume to capacity (V/C) ratio for Alternative 2a (including the Randall Blvd S-curve connection) is included as **Attachment 1**. The lane calls and V/C for Alternative 3a (including the extension of Randall Blvd) is included as **Attachment 2**. A summary table is provided in **Attachment 3** that illustrates the facility lane calls for the adopted 2040 LRTP Needs Plan and the lane calls for each proposed alternative.

The consultant has prepared cost estimates and preliminary scores (based on adopted methodology in the 2040 LRTP) for new projects added to the Needs Plan. The projects were added to the priority listing from the adopted 2040 LRTP based upon the scoring. The priority list with costs is included as **Attachment 4**.

Preliminary maps were developed for the Cost Feasible Plan (**Attachment 5**). The maps include the adopted 2040 Cost Feasible Network with the number of lanes, the V/C ratio with the 2040 SE data as released, and the V/C ratio with the reallocated SE data. MPO staff is currently coordinating with Collier County to determine which projects should be presented as cost feasible.

There will be a public meeting for the LRTP amendment on March 15th at 5 pm, at the Peace Lutheran Church, 9850 Immokalee Road.

COMMITTEE RECOMMENDATIONS: The TAC and CAC received a presentation on the model runs for the Needs Plan, preliminary work on the Cost Feasible Plan and a revised project schedule. The committees will review the draft report at their March meetings.

STAFF RECOMMENDATION: That the Board receive a presentation regarding project status and alternatives and make a recommendation to be presented to the public at the March 15th public meeting.

Prepared By: Brandy Otero, Collier MPO Senior Planner

ATTACHMENT(S)

1. Needs Plan Alternate 2A Maps (PDF)
2. Needs Plan Alternate 3A Maps (PDF)
3. Summary of Revisions to Network (PDF)

4. 2040 Needs Assessment List with Project Scoring(PDF)
5. Preliminary Maps for Cost Feasible Network (PDF)

03/09/2018

**COLLIER COUNTY
Metropolitan Planning Organization**

Item Number: 10.A**Doc ID:** 4996**Item Summary:** Review and Endorse 2040 LRTP Amendment Needs and Cost Feasible Projects for Public Review and Comment**Meeting Date:** 03/09/2018**Prepared by:**

Title: Planner, Senior – Metropolitan Planning Organization

Name: Brandy Otero

03/01/2018 2:05 PM

Submitted by:

Title: Executive Director - MPO – Metropolitan Planning Organization

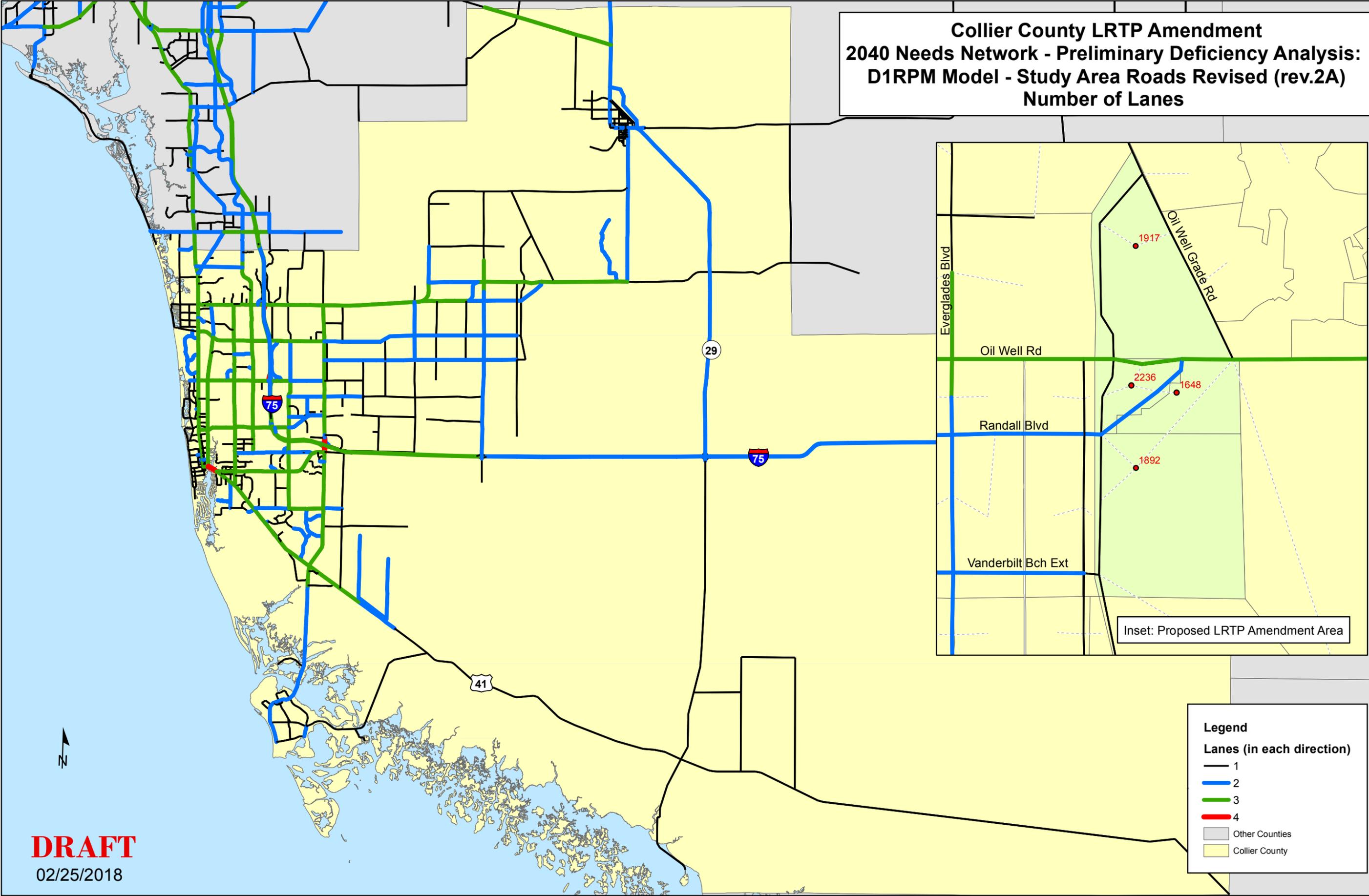
Name: Anne McLaughlin

03/01/2018 2:05 PM

Approved By:**Review:**

Metropolitan Planning Organization	Brandy Otero	MPO Analyst Review	Completed	03/01/2018 2:06 PM
Metropolitan Planning Organization	Anne McLaughlin	MPO Executive Director Review	Completed	03/01/2018 2:08 PM
Metropolitan Planning Organization	Anne McLaughlin	Meeting Pending		03/09/2018 9:00 AM

Collier County LRTP Amendment 2040 Needs Network - Preliminary Deficiency Analysis: D1RPM Model - Study Area Roads Revised (rev.2A) Number of Lanes



Inset: Proposed LRTP Amendment Area

Legend

Lanes (in each direction)

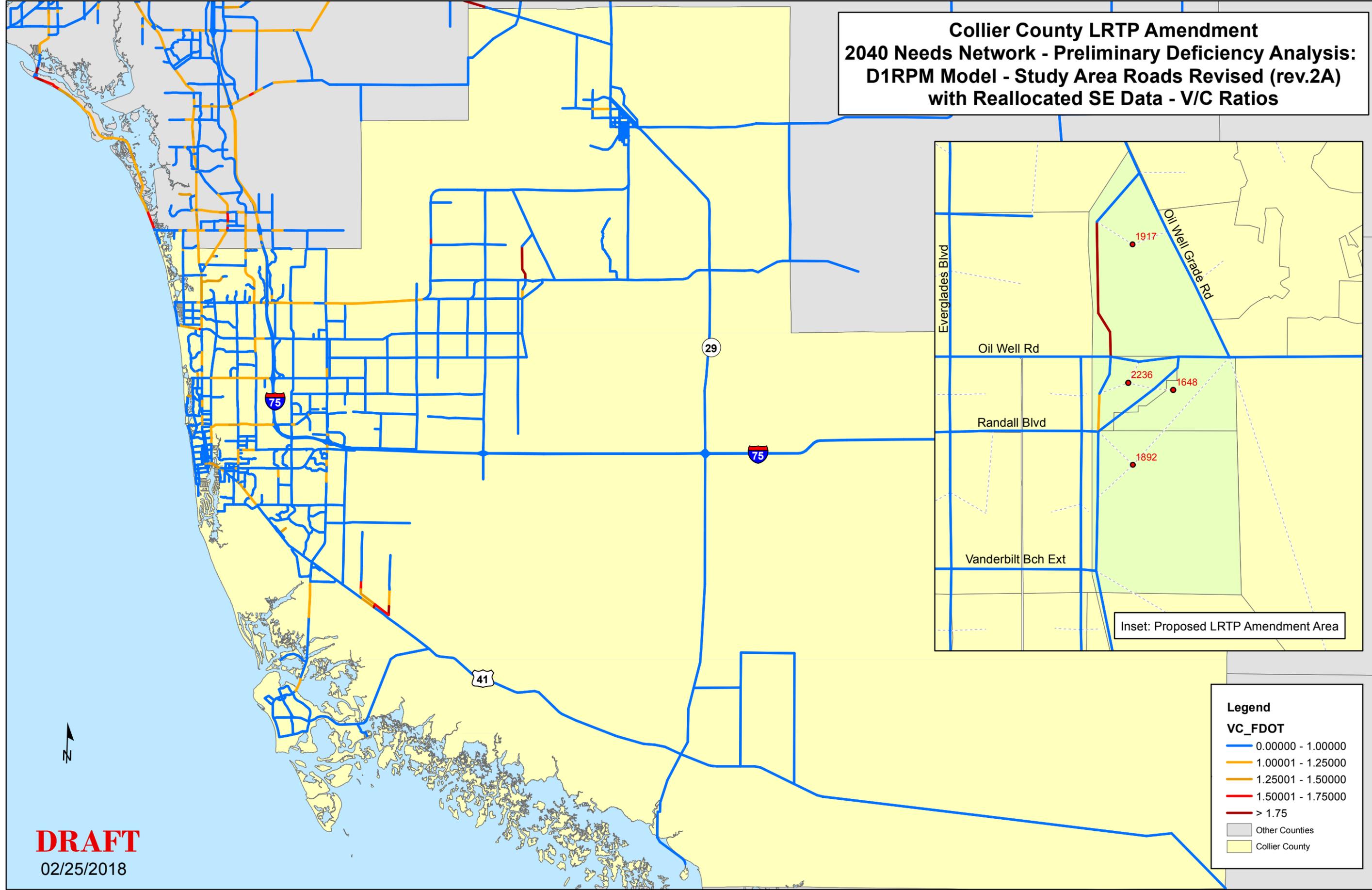
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- Other Counties
- Collier County

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Attachment: Needs Plan Alternate 2A Maps (4996 : Review and Endorse 2040 LRTP Amendment Needs and Cost Feasible Projects for Public

Collier County LRTP Amendment 2040 Needs Network - Preliminary Deficiency Analysis: D1RPM Model - Study Area Roads Revised (rev.2A) with Reallocated SE Data - V/C Ratios



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02/25/2018

Legend

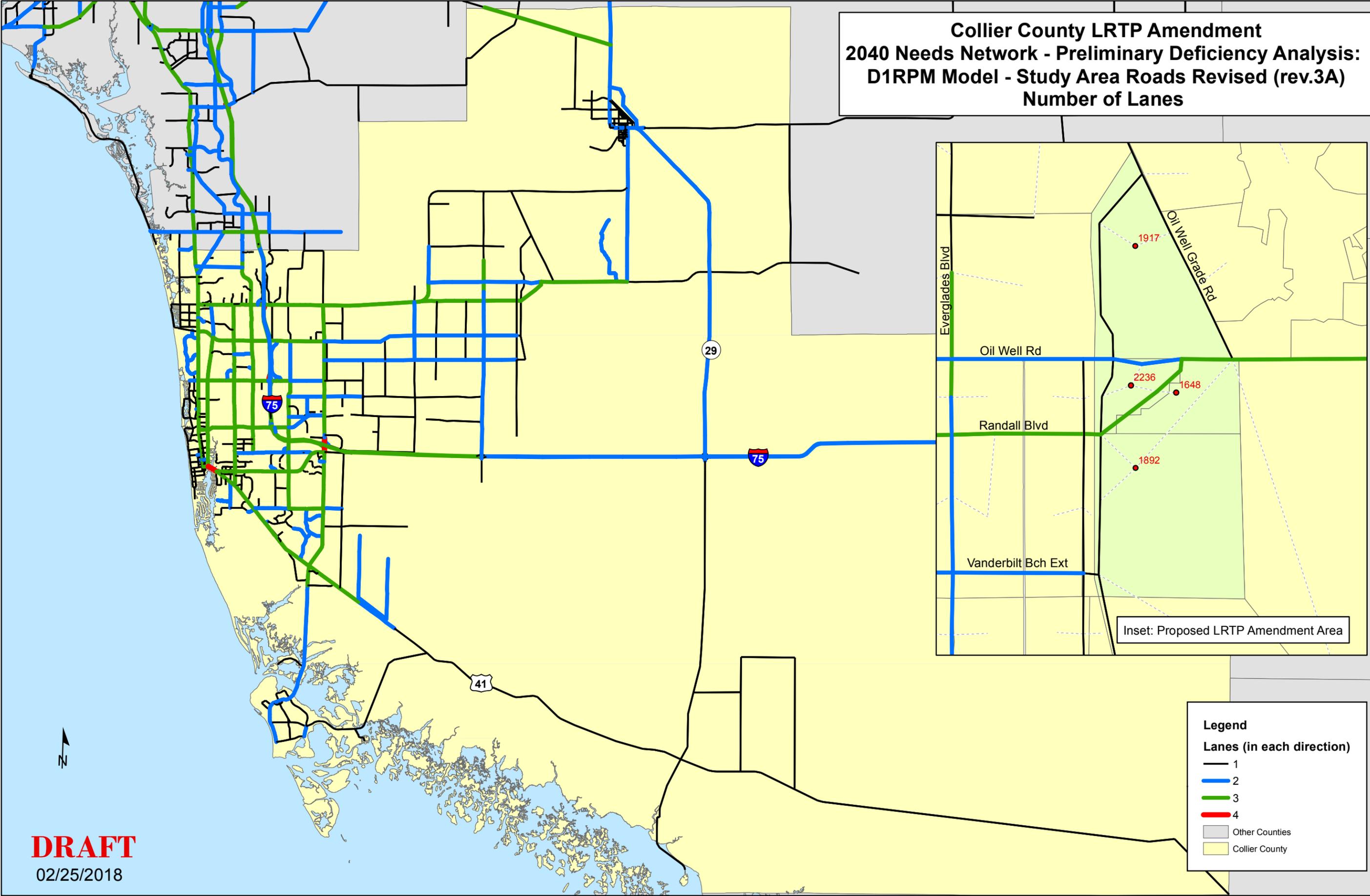
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- 1.25001 - 1.50000
- 1.50001 - 1.75000
- > 1.75
- Other Counties
- Collier County

Inset: Proposed LRTP Amendment Area

Attachment: Needs Plan Alternate 2A Maps (4996 : Review and Endorse 2040 LRTP Amendment Needs and Cost Feasible Projects for Public

Collier County LRTP Amendment 2040 Needs Network - Preliminary Deficiency Analysis: D1RPM Model - Study Area Roads Revised (rev.3A) Number of Lanes



Inset: Proposed LRTP Amendment Area

Legend

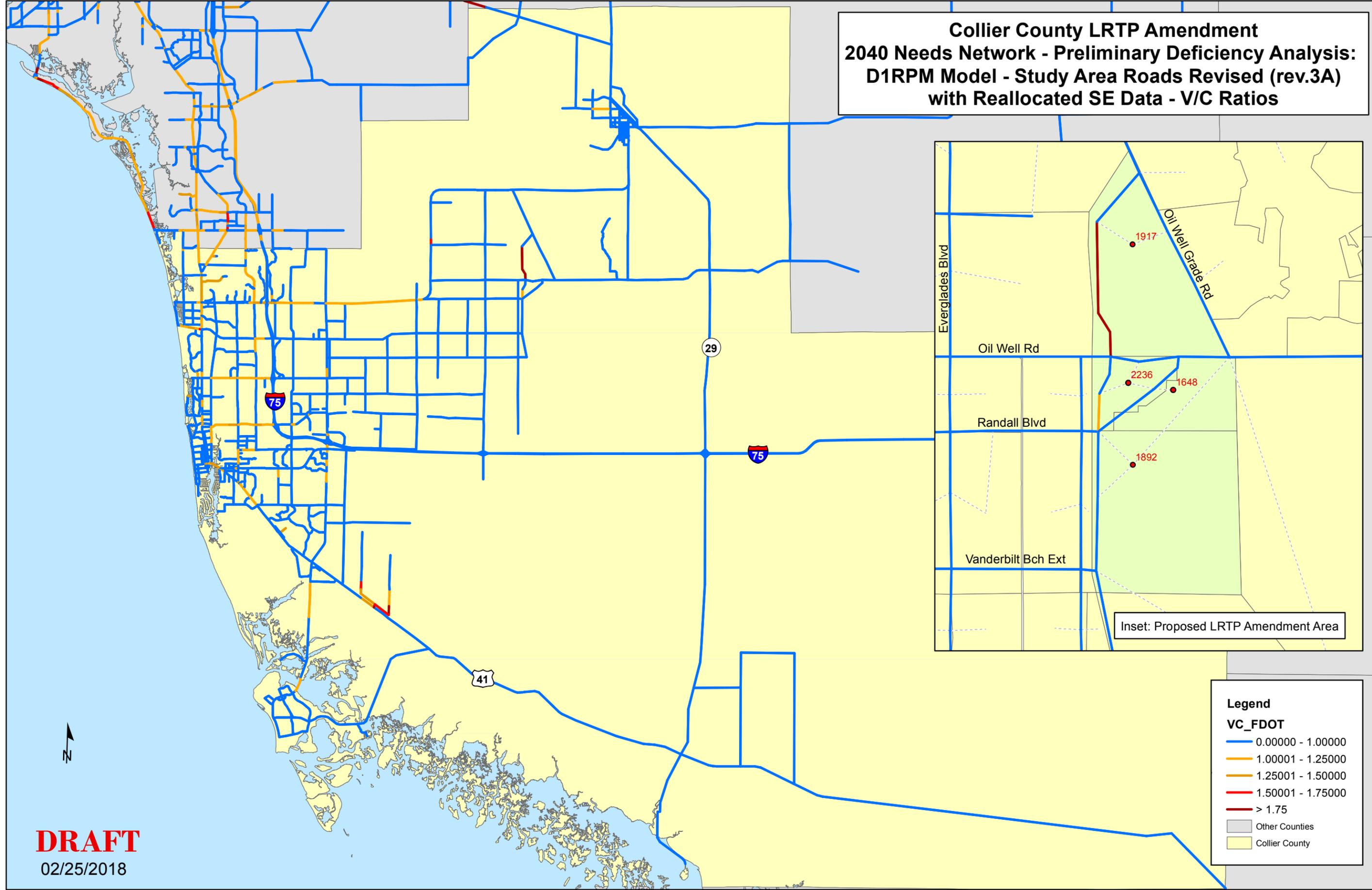
Lanes (in each direction)

- 1
- 2
- 3
- 4
- Other Counties
- Collier County

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02/25/2018

Attachment: Needs Plan Alternate 3A Maps (4996 : Review and Endorse 2040 LRTP Amendment Needs and Cost Feasible Projects for Public

Collier County LRTP Amendment 2040 Needs Network - Preliminary Deficiency Analysis: D1RPM Model - Study Area Roads Revised (rev.3A) with Reallocated SE Data - V/C Ratios



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02/25/2018

Legend

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- > 1.75
- Other Counties
- Collier County

Inset: Proposed LRTP Amendment Area

Attachment: Needs Plan Alternate 3A Maps (4996 : Review and Endorse 2040 LRTP Amendment Needs and Cost Feasible Projects for Public

Collier MPO
2040 LRTP Amendment
Needs Network Alternatives

Networks tested with Big Cypress Parkway Connection

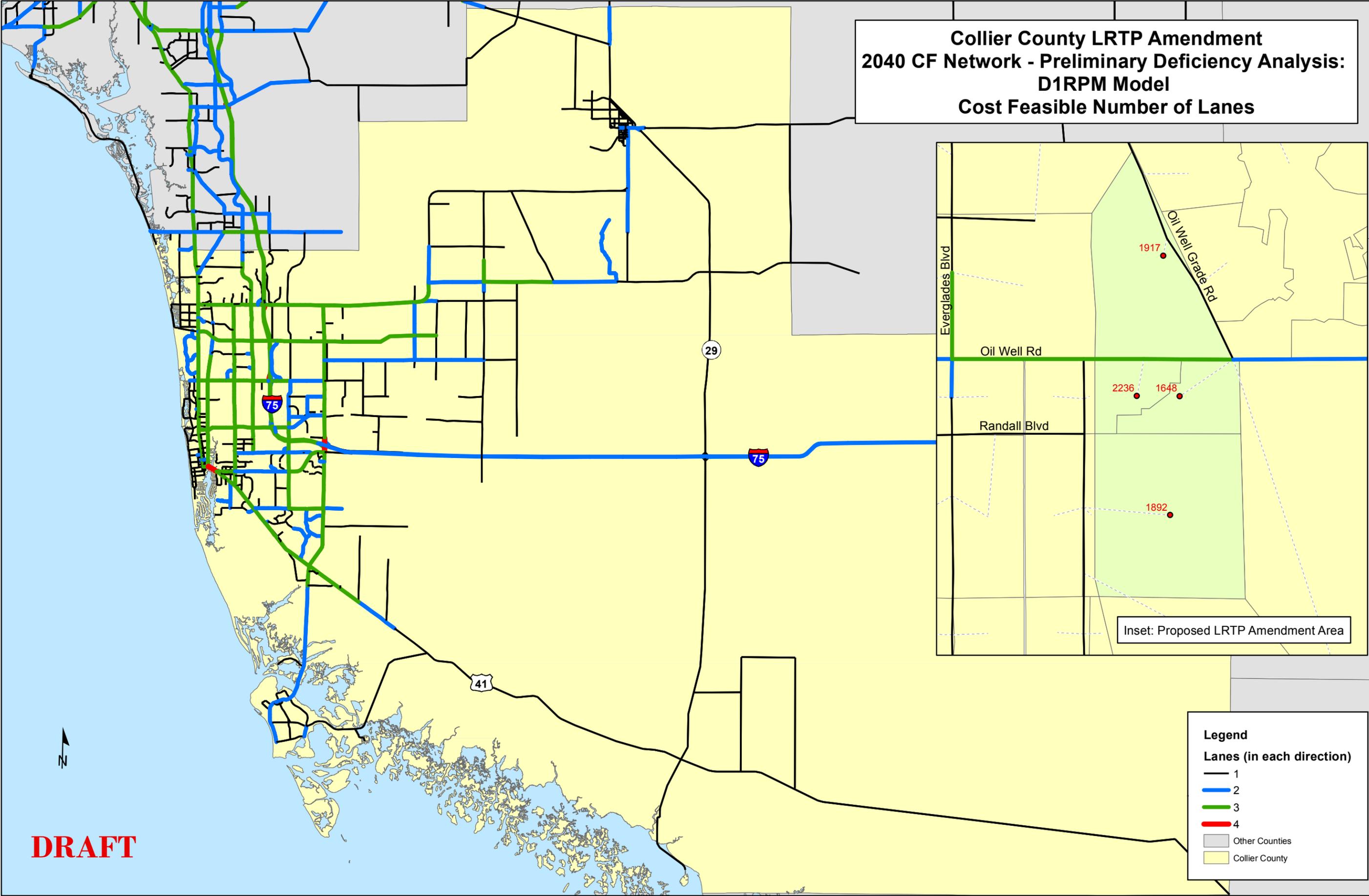
Roadway	2040 Needs	2040 BCP r2a	2040 BCP r3a
Big Cypress Pkwy: Golden Gate Blvd to VBR	N/A	2 Lanes	2 Lanes
Big Cypress: VBR to Immokalee Road	N/A	2 Lanes	2 Lanes
Golden Gate: extend to Big Cypress	N/A	2 Lanes	2 Lanes
Vanderbilt Beach: extension to Everglades Blvd	4 Lanes	4 Lanes	4 Lanes
Vanderbilt Beach: Everglades Blvd to Desoto Blvd	2 Lanes	4 Lanes	4 Lanes
Vanderbilt Beach: Desoto Blvd to BCP	N/A	2 Lanes	2 Lanes
Randall Blvd: Immokalee Rd to 16 th Ave NE (S Curve)	6 Lanes	6 Lanes	6 Lanes
Randall Blvd: 16 th Ave NE (S Curve) to Everglades Blvd	2 Lanes	4 Lanes	6 Lanes
Randall Blvd: Everglades Blvd to Desoto Blvd	2 Lanes	4 Lanes	6 Lanes
Randall Blvd: Desoto Blvd to BCP	N/A	4 Lanes	6 Lanes
Randall Blvd: BCP to Oil Well Road	N/A	4 Lanes	6 Lanes
Oil Well Rd: Immokalee Rd to Everglades Blvd (S-Curve)	4 Lanes	4 Lanes	4 Lanes
Oil Well Rd: Everglades Blvd (S-Curve) to BCP	6 Lanes	6 Lanes	4 Lanes
Oil Well Rd: BCP to Randall Blvd Extension	6 Lanes	6 Lanes	4 Lanes
Oil Well Rd: Randall Blvd Extension to Camp Keais Rd	6 Lanes	6 Lanes	6 Lanes
S-Curve: Randall Blvd to Oil Well Rd	6 Lanes	4 Lanes	N/A
Everglades Blvd: Golden Gate Pkwy to N of Randall Blvd (6 lane section)	4 Lanes	4 Lanes	4 Lanes
Everglades Blvd: N of Oil Well Road (6 lane section) to Immokalee Rd	4 Lanes	2 Lanes	2 Lanes

- Alternative BCP r2a: S-Curve connect at Randall east of 16th Avenue NE.
- Alternatives BCP r2a and BCP r3a: Oil Well and Randall within RLW will have a more urban feel with adjacent development than to the east or west where it's more rural.

2040 Amended Needs Assessment with Project Selectin Criteria

Facility	Limit From	Limit To	Final Proposed Improvement - 2035 Needs Plan Update	Link in Miles	CST Phase in CFP	Any Phase in CFP	Construction Cost Estimates Present Day Costs (PDC)	Revised Cost Estimates (Includes Env Mitigation and ROW)	Unfunded SIS Cost	ROW (Included in Cost Estimates Total)	Environmental Mitigation (Included in Cost Estimates Total)	System Continuity & Connectivity	1.0		1.0		2.0		1.0		1.0		0.5		Benefit Points		\$M/lane-mile	BP/S/lane-mile		
													Weighted Value	Previous Score	Evac Route	Weighted Value	Previous Score	Reduce Cong	Weighted Value	Wetland Impact	Weighted Value	Species Impact	Weighted Value	Freight Route	Weighted Value	Un-Weighted			Weighted	
1	Critical Needs Intersection	Golden Gate Parkway @ I-75	Major Ramp Improvements		CST	X	\$2,000,000	\$2,000,000		\$0	\$0	0	0	5	5	5	10	0	0	0	0	5	3	15	18	NA	NA			
2	Critical Needs Intersection	Pine Ridge Road @ I-76	Major Ramp Improvements (Partial Cloverleaf)		CST	X	\$5,000,000	\$5,000,000		\$0	\$0	0	0	5	5	5	10	0	0	0	0	5	3	15	18	NA	NA			
3	Critical Needs Intersection	I-75 (SR-93) and Collier Boulevard (CR 951)	Partial cloverleaf interchange with 2 loop ramps	0.0	CST	X	\$42,504,654	\$42,504,654		\$0	\$0	0	0	5	5	5	10	0	0	0	0	5	3	15	18	NA	NA			
4	CR 951 (Collier Boulevard)	Golden Gate Canal	Green Boulevard	Expand from 4-Lane Divided to 6-Lane Divided Arterial	2.0	CST	X	\$30,000,000	\$30,000,000		\$0	\$0	2	2	5	5	5	10	0	0	0	0	0	12	17	\$7.50	2.27			
5	SR 29	Immokalee Dr.	New Market Road North	Expand from 2-Lane Undivided with center turn lane to 4-Lane Divided Arterial	2.0				\$31,273,603	\$10,388,201	\$109,000	0	0	5	5	5	10	0	0	-1	-1	5	3	14	17	\$6.50	2.54			
6	Critical Needs Intersection	Immokalee Rd @ I-75 Interchange	Major Ramp Improvements		CST	X	\$2,750,000	\$2,792,000		\$0	\$42,000	0	0	5	5	5	10	-1	-1	0	0	5	3	14	17	NA	NA			
7	SR 29 By-Pass	SR 29 (north of New Market Rd)	SR-29/CR-846 Intersection	New 4-lane Divided Arterial	2.5				\$54,369,907	\$17,862,636	\$782,000	0	0	5	5	5	10	-1	-1	-1	-1	5	3	13	16	\$6.39	2.43			
8	Critical Needs Intersection	US41 (SR-90) (Tami Trail East) and Collier Boulevard (CR 951)	Single point urban interchange	0.0	No	X	\$44,140,000	\$44,140,000		\$0	\$0	0	0	5	5	5	10	0	0	0	0	0	0	10	15	NA	NA			
9	SR 29	New Market Road North	North of SR-82	Expand from 2-Lane Undivided to 4-Lane Divided Arterial	3.1				\$33,451,404	\$0	\$507,000	0	0	5	5	5	10	0	0	-3	-3	5	3	12	15	\$6.70	2.16			
10	Old US 41	US 41 (SR-45)	Collier/Lee County Line	Expand from 2-Lane Undivided to 4-Lane Divided Major Collector	1.5	CST	X	\$15,030,000	\$15,488,000		\$0	\$458,000	0	0	5	5	5	10	-3	-3	0	0	5	3	12	15	\$5.16	2.81		
11	Vanderbilt Beach Road	8th Street	Desoto Boulevard	New 4 lane Divided Arterial from 21st St SW to Desoto Blvd	4.7	CST	X	\$35,000,000	\$63,497,675		\$24,088,675	\$4,409,000	5	5	5	5	5	10	-3	-3	-3	-3	0	0	9	14	\$3.38	4.15		
12	Vanderbilt Beach Road	CR 951	8th Street	Expand from 2-Lane Undivided to 4-Lane Divided Arterial from CR951 to 21 St SW & New 4-lane to Wilson	6.0	CST	X	\$99,930,000	\$141,511,000		\$38,766,000	\$2,815,000	5	5	5	5	5	10	-3	-3	-3	-3	0	0	9	14	\$11.79	1.19		
13	US41 (SR-90) (Tami Trail East)	Greenway Road	6 L Farm Road	Expand from 2-Lane Undivided to 4-Lane Divided Arterial	2.6	CST	X	\$21,830,000	\$26,190,664		\$3,953,664	\$407,000	0	0	5	5	5	10	-1	-1	-1	-1	0	0	8	13	\$5.04	2.58		
14	Randall Boulevard / Oil Well Road Study Area	Future Study Area	Future Study Area	Future Study Area	3.4							2	2	5	5	5	10	-1	-1	-3	-3	0	0	8	13	\$0.00	NA			
15	Green Boulevard Ext / 16th Ave SW	23rd St SW	Wilson Blvd Ext (Corridor Study)	New 2-Lane Collector (Future Study Area)	2.9				\$30,193,638		\$9,618,213	\$1,339,000	3	3	5	5	5	10	-4	-4	-1	-1	0	0	8	13	\$5.21	2.50		
16	SR 84 (Davis Boulevard)	Airport Pulling Road	Santa Barbara Boulevard	Expand from 4 divided to 6-Lane Divided Arterial	3.0	No	X	\$33,110,000	\$50,839,000		\$17,424,000	\$305,000	2	2	5	5	3	6	-1	-1	0	0	0	0	9	12	\$8.47	1.42		
17	Critical Needs Intersection	Immokalee Road and Randall Boulevard		Phase 1 - Maximum at-grade improvements to accommodate a future fly-over interchange	0.0	CST	X	\$49,250,000	\$49,385,000		\$0	\$135,000	0	0	5	5	5	10	0	0	-3	-3	0	0	7	12	NA	NA		
18	Immokalee Road	Camp Keais Road	Carver Street	Expand from 2-Lane Undivided to 4-Lane Divided Arterial	2.5	CST	X	\$25,040,000	\$27,546,000		\$1,452,000	\$1,054,000	0	0	5	5	5	10	-2	-2	-4	-4	5	3	9	12	\$5.51	2.09		
19	Critical Needs Intersection	US 41 @ Goodlette Road		Major At-Grade Intersection Improvements (2nd WB RT-Ln)		CST	X	\$2,000,000	\$2,250,000		\$250,000	\$0	0	0	5	5	3	6	0	0	0	0	0	0	8	11	NA	NA		
20	Critical Needs Intersection	I-75 (SR-93) in the vicinity of Everglades Boulevard		New Interchange	0.0				\$42,729,654		\$225,000		5	5	5	5	3	6	0	0	-5	-5	0	0	8	11	NA	NA		
21	Green Boulevard Ext / 16th Ave SW	CR 951	23rd Street SW (Corridor Study)	New 4-Lane Divided Collector (Future Study Area)	2.1				\$42,216,300		\$13,568,100	\$1,512,000	4	4	0	0	5	10	-3	-3	-1	-1	0	0	5	10	\$5.03	1.99		
22	Oil Well Road / CR 858	Everglades Boulevard	Oil Well Grade Road	2-Lane Roadway to 4-Lanes divided	3.9	CST	X	\$20,000,000	\$37,004,625		\$15,146,625	\$1,858,000	2	2	5	5	5	10	-2	-2	-5	-5	0	0	5	10	\$4.74	2.11		
23	Everglades Boulevard	Golden Gate Blvd	Vanderbilt Bch Rd Ext	Expand from 2-Lane Undivided to 4-Lane Divided Arterial	2.2				\$24,161,413		\$7,788,138	\$797,000	0	0	5	5	1	5	10	-2	-2	-3	-3	0	0	5	10	\$5.57	1.80	
24	CR 951 Extension	Heritage Bay Entrance	Lee/Collier County Line	New 2-lane Arterial to Bonita Beach Road	2.5				\$37,424,625		\$11,171,875	\$3,909,000	5	5	5	5	3	5	10	-5	-5	-5	-5	0	0	5	10	\$3.74	2.67	
25	SR 29	9th St	Immokalee Dr.	Expand from 2-Lane Undivided with center turn lane to 4-Lane Divided Arterial	0.9				\$22,011,093	\$13,329,360	\$0		0	0	5	5	1	2	0	0	0	0	5	3	11	10	\$8.51	1.12		
26	Wilson Boulevard Ext / Black Burn Rd	Wilson Blvd	End of Haul Road (Corridor Study)	New 2-Lanes of a Future Multi-lane Facility(Future Study Area)	2.6	No	X	\$29,310,000	\$36,691,625		\$3,316,625	\$4,065,000	3	3	0	5	5	0	5	10	-5	-5	-5	-5	0	0	3	8	\$7.06	1.13
27a	Randall Blvd Extension	Desoto Boulevard	Big Cypress Parkway	New 4-Lane Road	0.3			\$2,562,625	\$4,003,938		\$1,281,313	\$160,000	3	3	0	0	5	10	-1	-1	-4	-4	0	0	3	8	\$4.00	2.00		
27b	Randall Blvd Extension	Desoto Boulevard	Big Cypress Parkway	New 6-Lane Road	0.3			\$3,227,250	\$5,080,875		\$1,613,625	\$240,000	3	3	0	0	5	10	-1	-1	-4	-4	0	0	3	8	\$3.39	2.36		
28	I-75 (SR-93) Managed/ Express (Toll) Lanes	North of Golden Gate Parkway (Exit #105)	Collier/Lee County Line	New 4-Lanes Express (Toll) Lanes with slip-ramp locations connecting to general purpose lanes TBD	9.0				\$134,646,986	\$0	\$0		0	0	5	5	1	2	-2	-2	0	0	5	3	9	8	\$4.66	1.61		
29	Goodlette-Frank Road	Orange Blossom Drive	Vanderbilt Beach Road	Expand from 4-Lane Divided to 6-Lane Divided Arterial	0.9				\$12,997,969		\$4,332,656	\$0	0	0	5	5	1	2	0	0	0	0	0	0	6	7	\$7.22	0.97		
30	Immokalee Road (CR 846)	SR 29	Airpark Boulevard	Expand from 2-Lane Undivided to 4-Lane Divided Arterial	0.4	CST	X	\$4,060,000	\$4,060,000		\$0	\$0	0	0	5	5	1	2	0	0	0	0	0	0	6	7	\$4.83	1.45		
31	Veterans Memorial Boulevard	US 41 (SR-45)	Livingston Road	New 2-Lane of future 4-Lane Divided Arterial	2.9	CST	X	\$8,000,000	\$27,622,900		\$18,736,900	\$886,000	4	4	0	0	3	6	-3	-3	0	0	0	0	4	7	\$4.76	1.47		
32	Camp Keais Road	Pope John Paul Blvd	Immokalee Road	Expand from 2-Lane Undivided to 4-Lane Divided Arterial	2.6	CST	X	\$10,000,000	\$10,425,000		\$0	\$425,000	0	0	0	0	1	5	10	0	0	-3	-3	0	0	2	7	\$2.00	3.49	
33a	Randall Blvd Extension	Big Cypress Parkway	Oil Well Road	New 4-Lane Road	1.6			\$16,400,800	\$25,951,200		\$8,200,400	\$1,350,000	3	3	0	0	5	10	-2	-2	-4	-4	0	0	2	7	\$4.05	1.73		
33b	Randall Blvd Extension	Big Cypress Parkway	Oil Well Road	New 6-Lane Road	1.6			\$20,654,400	\$33,005,600		\$10,327,200	\$2,024,000	3	3	0	0	5	10	-2	-2	-4	-4	0	0	2	7	\$3.44	2.04		
34	SR 82	SR 29	Collier/Hendry County Line	Expand from 2-Lane Undivided to 6-Lane Divided Arterial	7.0				\$63,214,837	\$0	\$1,145,000		0	0	5	5	1	2	0	0	-3	-3	5	3	8	7	\$2.80	2.32		
35	Vanderbilt Beach Road	US 41 (SR-45)	Airport Pulling Road	Expand from 4-Lane Divided to 6-Lane Divided Arterial	2.1	CST	X	\$4,000,000	\$4,214,000		\$0	\$214,000	0	0	5	5	3	1	2	-1	-1	0	0	0	0	5	6	\$1.00	5.98	
36	Goodlette-Frank Road	Vanderbilt Beach Road	Immokalee Road	Expand from 2-Lane Undivided to 4-Lane Divided Arterial	1.8				\$17,023,440		\$1,045,440	\$183,000	0	0	5	5	1	2	-1	-1	0	0	0	0	5	6	\$4.73	1.27		
37	Logan Boulevard	Green Boulevard	Pine Ridge Road	Expand from 4-Lane Divided to 6-Lane Divided Arterial	2.6				\$37,549,688		\$12,516,563	\$0	0	0	5	5	3	0	0	0	0	0	0	0	5	5	\$7.22	0.69		
38	Green Boulevard Ext / 16th Ave SW	Wilson Blvd Ext	Everglades Boulevard (Corridor Study)	New 2-Lane Collector	3.9				\$30,655,638		\$9,618,213	\$1,801,000	3	3	5	5	3	1	2	-4	-4	-1	-1	0	0	4	5	\$3.93	1.27	
39	Airport Pulling Road	Vanderbilt Beach Road	Immokalee Road	Expand from 4-Lane Divided to 6-Lane Divided Arterial	2.0	CST	X	\$5,000,000	\$5,000,000		\$0	\$0	0	0	5	5	0	0	0	0	0	0	0	0	5	5	\$1.25	4.00		
40	SR 951 (Collier Boulevard)	So. of Manatee Road	No. of Tower Road	Expand from 4-Lane Divided to 6-Lane Divided Arterial	1.0	CST	X	\$13,350,000	\$13,554,000		\$0	\$204,000	0	0	5	5	1	2	-2	-2	0	0	0	0	4	5	\$6.78	0.74		
41	Santa Barbara Boulevard	Painted Leaf Lane	Green Boulevard	Expand from 4-Lane Divided to 6-Lane Divided Arterial	1.7				\$25,744,975		\$9,204,163	\$173,000	0	0	5	5	0	0	-1	-1	0	0	0	0	4	4	\$7.57	0.53		
42	Big Cypress Parkway	Vanderbilt Beach Extension	Oil Well Grade Road	New 2-Lane Road (ROW Expandable to 4-Lanes)	5.9			\$39,136,175	\$73,151,150		\$30,238,975	\$3,776,000	3	3	0	0	3	6	-1	-1	-4	-4	0	0	1	4	\$3.10	1.29		
43	SR 29	North of SR-82	Collier/Hendry County Line	Expand from 2-Lane Undivided to 4-Lane Divided Arterial	2.4	CST	X	\$7,889,764	\$7,889,764		\$0	\$0	0	0	5	5	0	0	-1	-1										

Collier County LRTP Amendment 2040 CF Network - Preliminary Deficiency Analysis: D1RPM Model Cost Feasible Number of Lanes



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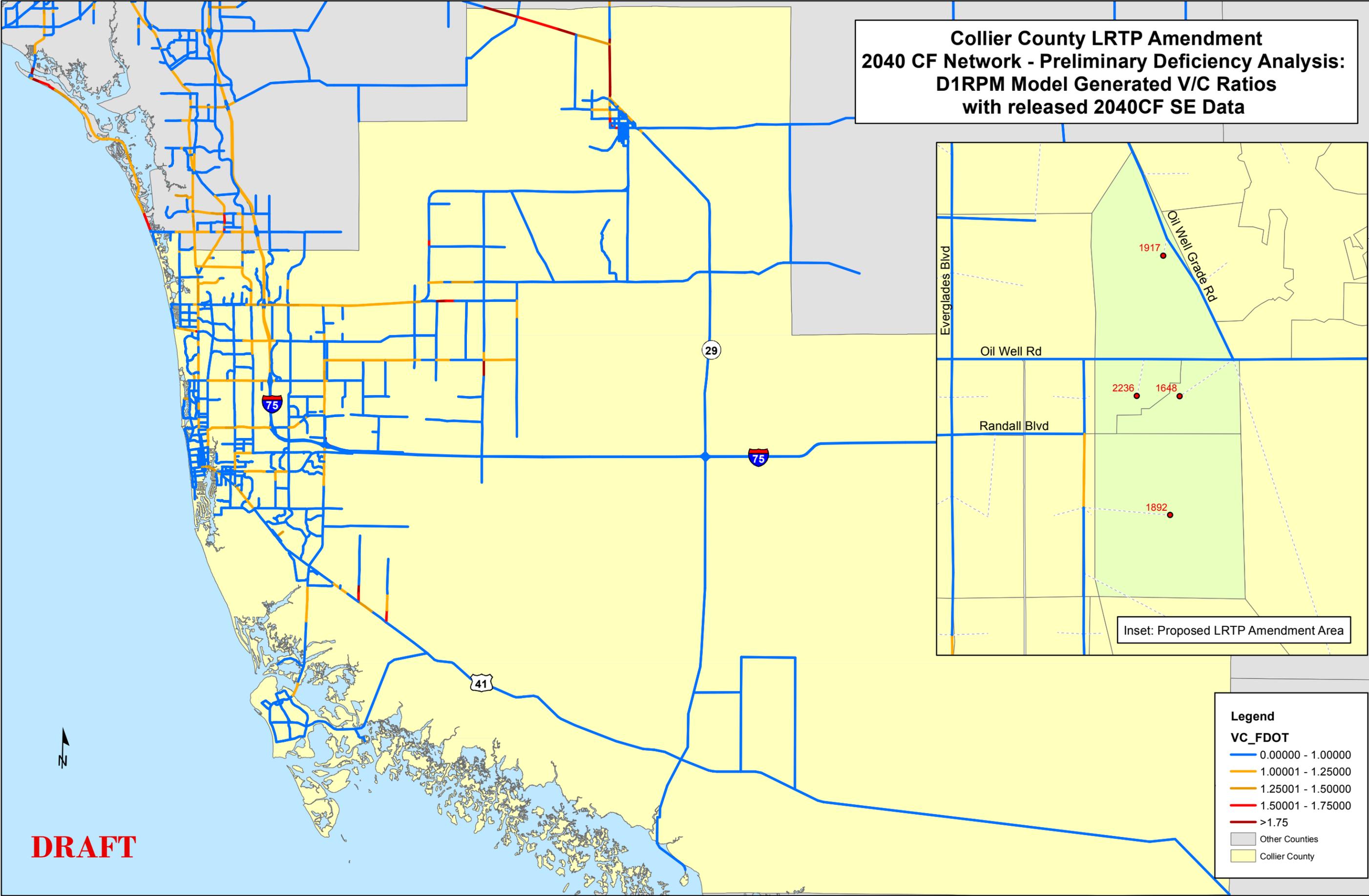
Lanes (in each direction)

- 1
- 2
- 3
- 4

- Other Counties
- Collier County

Attachment: Preliminary Maps for Cost Feasible Network (4996 : Review and Endorse 2040 LRTP Amendment Needs and Cost Feasible

Collier County LRTP Amendment 2040 CF Network - Preliminary Deficiency Analysis: D1RPM Model Generated V/C Ratios with released 2040CF SE Data



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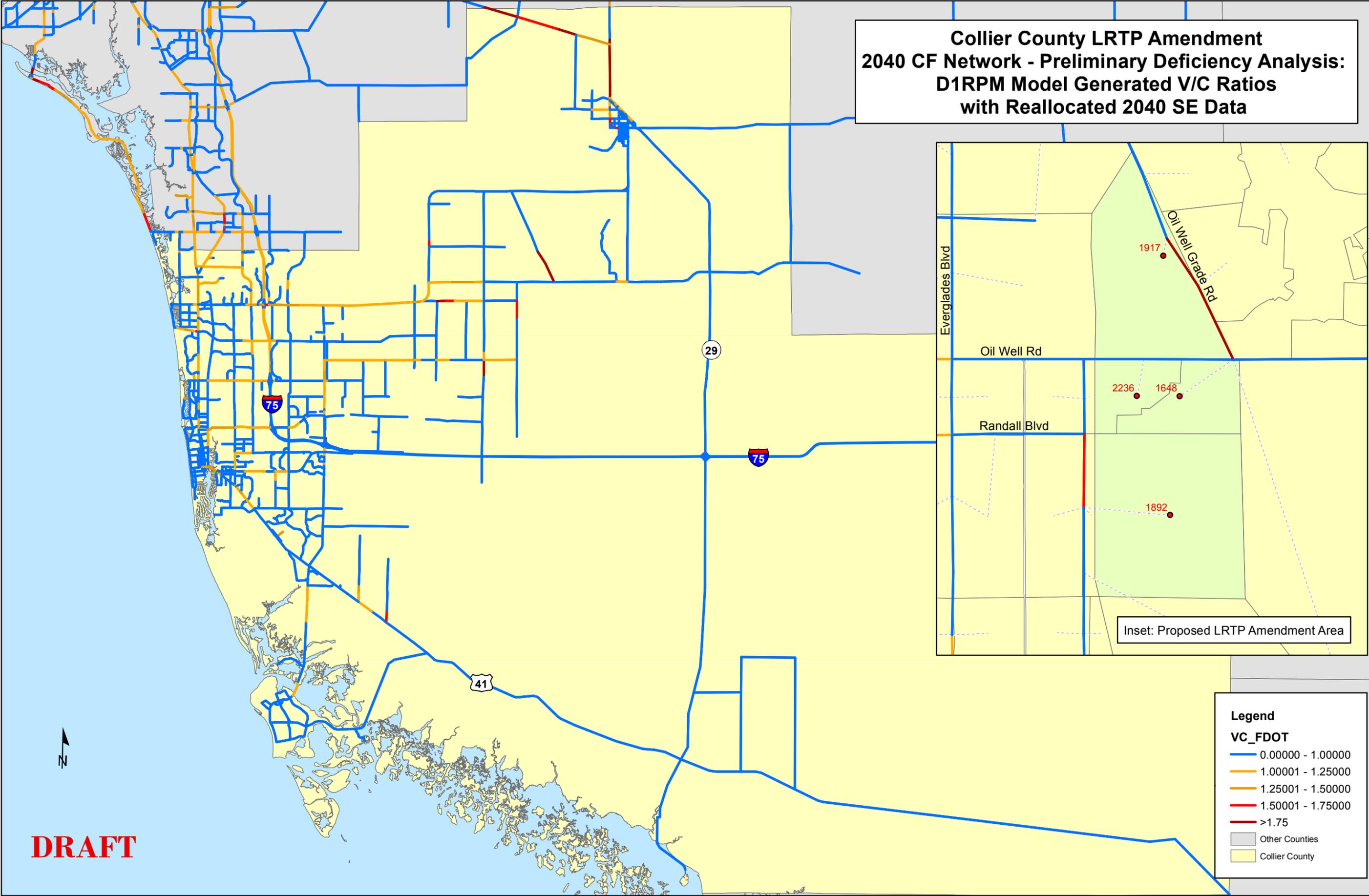
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- 1.00001 - 1.25000
- 1.25001 - 1.50000
- 1.50001 - 1.75000
- >1.75
- Other Counties
- Collier County

Attachment: Preliminary Maps for Cost Feasible Network (4996 : Review and Endorse 2040 LRTP Amendment Needs and Cost Feasible

Collier County LRTP Amendment 2040 CF Network - Preliminary Deficiency Analysis: D1RPM Model Generated V/C Ratios with Reallocated 2040 SE Data



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Legend

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- 1.00001 - 1.25000
- 1.25001 - 1.50000
- 1.50001 - 1.75000
- >1.75
- Other Counties
- Collier County

Inset: Proposed LRTP Amendment Area

Attachment: Preliminary Maps for Cost Feasible Network (4996 : Review and Endorse 2040 LRTP Amendment Needs and Cost Feasible

EXECUTIVE SUMMARY

City of Naples & Collier County TMC Co-location Feasibility Study

OBJECTIVE: For the Board to receive a presentation on the City of Naples & Collier County Traffic Management Center (TMC) Co-location Feasibility Study prepared by the Florida Department of Transportation (FDOT).

CONSIDERATIONS: The City of Naples submitted a project application for a Traffic Operations Center Consolidation Study in February 2016. The purpose was to "...study existing conditions for how each TOC operates, assess performance and the agency/community need for independent operations, and then evaluate the advantages and disadvantages for consolidation. The Congestion Management System/Intelligent Transportation System (CMS/ITS) Committee ranked the project third. The MPO Board approved the committee's project priorities and submitted them to FDOT.

FDOT subsequently decided to conduct the study using State resources rather than the MPO's SU funds. FDOT worked closely with City of Naples and Collier County staff in developing the report. The study concludes that "...co-locating the City of Naples and Collier County TMCs is recommended. Co-location would provide the motorists in that region a seamless transportation network with reliable incident response. Each agency would still be able to successfully meet their own goals and objectives, with the potential to exceed current performance due to quicker coordination efforts between agencies."

COMMITTEE RECOMMENDATION: The Citizens Advisory Committee (CAC) and Technical Advisory Committee (TAC) received a brief presentation on the recommendations of the study. The CAC did not take formal action.

The TAC voted to approve a motion to move forward with sharing data and video, but not to endorse the TMC Colocation Study for the reasons put forward by City of Naples staff:

- Redundancy in terms of having two independent TMCs is an important attribute to preserve
- City/County differences in traffic management policy and responsibilities regarding operations and security
- Likely negative impact on providing expected service level for City residents and businesses from a more distant TMC location
- Loss of benefits associated with multi-tasking staff roles and interacting with co-located City staff in current location; impacts on ability to coordinate quick response times by non-traffic operations City staff, public works, police, fire, EMS

After the meeting, the County Traffic operations representative on the TAC, who was called out of the meeting prior to the committee's vote, sent an email to MPO staff stating his support for the TMC Colocation Study recommendations. MPO staff has encouraged Traffic Operations staff from the City and County to attend the Board meeting to answer questions and provide additional input as needed.

STAFF RECOMMENDATION: That the Board receive a presentation on the City of Naples & Collier County Traffic Management Center (TMC) Co-location Feasibility Study.

Prepared By: Anne McLaughlin, MPO Executive Director

ATTACHMENT(S)

1. City of Naples TOC Consolidation Study Application (PDF)
2. FDOT Co-location Feasibility Study (PDF)

03/09/2018

**COLLIER COUNTY
Metropolitan Planning Organization**

Item Number: 11.A**Doc ID:** 4981**Item Summary:** City of Naples and Collier County TMC Co-location Feasibility Study**Meeting Date:** 03/09/2018**Prepared by:**

Title: Planner, Senior – Metropolitan Planning Organization

Name: Brandy Otero

03/01/2018 2:09 PM

Submitted by:

Title: Executive Director - MPO – Metropolitan Planning Organization

Name: Anne McLaughlin

03/01/2018 2:09 PM

Approved By:**Review:**

Metropolitan Planning Organization	Brandy Otero	MPO Analyst Review	Completed	03/01/2018 2:09 PM
Metropolitan Planning Organization	Anne McLaughlin	MPO Executive Director Review	Completed	03/01/2018 2:12 PM
Metropolitan Planning Organization	Anne McLaughlin	Meeting Pending		03/09/2018 9:00 AM



**District One
Priority Project Information Packet**

Name of Applying Agency: City of Naples

Project Name:

Traffic Operations Center Consolidation Study

Project Category:

Congestion Management TRIP CIGP

Transportation Alternative RTAP Transit/Modal

Will this be a LAP project? Yes No

(If yes, applicant must be LAP certified)

Project Limits/Location:

Describe beginning and end points of project, ex.; from ABC Rd. to XYZ Ave. Limits run south to north or west to east. Include jurisdiction (city/county), project length attach a labeled project map.

For some time, there has been conversation about consolidation of the City of Naples and Collier County Traffic Operations Centers. Currently, each agency maintains its own center for purposes of managing signalized intersections and the transportation network within each respective boundary limits. In recent years the City and County have been working together to share traffic video feeds and intersection control data in an effort to provide seamless coordination and realtime traffic conditions. The County's TOC is located on South Horseshoe Drive. The City's TOC is located at 295 Riverside Circle.

Is the roadway on the State Highway System? Yes No

Is the roadway on the Federal Aid Eligible System? Yes No

If no, give local jurisdiction:

Is this project consistent with the MPO/TPO Long Range Transportation Plan?

Yes No Page number (attach page from LRTP): 6-24 and Appendix C

Is this project in the local jurisdiction's Capital Improvement Plan?

Yes No (attach page from CIP)

Project Description

Phase(s) requested:

Planning Study PD&E PE ROW CST CEI

Project cost estimates by phase:

Planning Study \$ 250,000 ROW \$0

PD&E \$0 CST \$0

PE \$0 CEI \$0

TOTAL Project Cost: \$250,000

Project Details: Clearly describe the project and desired improvements in detail and indicate if work will be completed in-house. Include labeled photos and maps. (Add additional pages if needed)

For some time there has been conversation about consolidation of the City of Naples and Collier County Traffic Operations Centers. Currently, each agency maintains its own Center for purposes of managing signalized intersections and the transportation network within each respective boundary limits. This project would study the existing conditions for how each TOC operates, assess performance and the agency/community need for independent operations, and then evaluate the advantages and disadvantages for consolidation. Attention would be given to individual agency protocols, technology and community expectations for each TOC. The study would qualify and quantify efficiencies for consolidation, as well as impairments and loss to each community. The study is not intended to be a plan for consolidation of TOC's, but rather a study of the advantages, disadvantages, efficiencies and costs associated with such a concept.

Constructability Review

For items 2-7 provide labeled and dated photos (add additional pages if needed)

- 1. Are there any other projects (ex. drainage, utility, etc.) programmed (local, state or federal) within the limits of this project? Yes No

If yes, provide details of the other project(s), including project scope and schedule:
[Click here to enter text.](#)

- 2. Does the applicant have an adopted ADA transition plan? Yes No

Identify areas within the project limits that will require ADA retrofit. (Include GIS coordinates for stops and labeled photos and/or map)

[Click here to enter text.](#)

- 3. Are there any transit stops/shelters/amenities within the project limits?

Yes No

How many? 2

Stop ID number: Collier Area Transit: US41 & Fleischmann, 8th St N and NCH

4. Are any improvements needed or requested for bus stops? Yes No

Description of existing conditions at stop and desired improvements (add additional pages if needed):

[Click here to enter text.](#)

5. Are turn lanes being added? Yes No

If yes, provide length of turn lanes

[Click here to enter text.](#)

6. Drainage structures:

Number of culverts or pipes currently in place: 0

Type: [Click here to enter text.](#)

Replacement? [Click here to enter text.](#)

Details [Click here to enter text.](#)

Will drainage ditches be filled in? Yes No

If yes, provide the limits and quantify in linear feet:

[Click here to enter text.](#)

Describe the proposed conveyances system (add additional pages if needed)

[Click here to enter text.](#)

Are there any existing permitted stormwater management facilities/ponds within the project limits? Yes No

If yes, provide the location and permit number (add additional pages if needed)

[Click here to enter text.](#)

Utilities within project limits: Yes No

If yes, list specific utilities within project limits and describe any potential conflicts (add additional pages if needed):

[Click here to enter text.](#)

Are there Bridges within project limits: Yes No

If yes, can bridges accommodate proposed improvements? Yes No

If no, what bridge improvements are proposed? (add additional pages if needed):

[Click here to enter text.](#)

7. Is needed Right-of-Way (ROW) within public ownership? Yes No

Provide details of potential ROW issues and how they will be addressed, evidence of ROW (GIS, maps, etc.) as well as a detailed breakdown of costs. Also include information about any potential encroachment issues (add additional pages if needed):

[Click here to enter text.](#)

8. Are permits required? Yes No

If yes, list the types of permits required:

[Click here to enter text.](#)

If no, state the qualified exemption:

[Click here to enter text.](#)

9. Are there any wetlands within the project limits? Yes No

If yes, list the type of wetlands and if mitigation will be required. Provide any additional information:

[Click here to enter text.](#)

Is there critical habitat within the project limits? Yes No (Provide details)

[Click here to enter text.](#)

10. Are there any endangered species within the project limits? Yes No

If yes, list the species and what, if any mitigation or coordination will be necessary:

[Click here to enter text.](#)

11. Is a historic survey required? Yes No (Provide details)

[Click here to enter text.](#)

12. Is Recreational or 4(f) property within the project limits? Yes No

(Provide details)

[Click here to enter text.](#)

13. Are there any contamination areas within the project limits? Yes No

(Provide details)

[Click here to enter text.](#)

Required Attachments

- A. Detailed Project Scope with Project Location Map
- B. Project Photos - dated and labeled
- C. Detailed Cost Estimates including Pay Items
- D. LRTP and Local CIP page
- E. Survey/As-builts/ROW documentation/Utility/Drainage information
- F. Detailed breakdown of ROW costs included in estimate (if ROW is needed/included in request or estimate)

Applicant Contact Information

Agency Name: City of Naples

Mailing Address: 295 Riverside Circle, Naples, FL 34102

Contact Name and Title: Alison Bickett, P.E., Traffic Engineer

Email: abickett@naplesgov.com **Phone:** (239) 213-5003

Signature: Alison Bickett **Date:** 2-3-16

Your signature indicates that the information included with this application is accurate.

Maintaining Agency: City of Naples

Contact Name and Title: Gregg Strakaluse, Streets and Stormwater Director

Email gstrakaluse@naplesgov.com **Phone:** (239) 213-5003

Signature: [Signature] **Date:** 2/6/16

Your signature serves as a commitment from your agency to maintain the facility requested.

MPO/TPO:

Contact Name and Title: Anne McLaughlin, Executive Director

Email: AnneMcLaughlin@colliergov.net **Phone:** 239-252-5884

Signature: [Signature] **Date:** 2/8/16

Your signature confirms the requested project is consistent with all MPO/TPO plans and documents, is eligible, and indicates MPO/TPO support for the project.



Collier MPO CMS/ITS Project Concept Sheet

REQUIRED INFORMATION:

1. Name of Project **Traffic Operations Center Consolidation Study**
2. Name of Applicant City of Naples
3. Name of Submitting Jurisdiction City of Naples
4. If this is a multi-jurisdictional application, please list the jurisdictions involved

5. Describe the project and its purpose, including the project limits (if applicable). Attachment?

For some time, there has been conversation about consolidation of the City of Naples and Collier County Traffic Operations Centers. Currently, each agency maintains its own center for purposes of managing signalized intersections and the transportation network within each respective boundary limits. In recent years the City and County have been working together to share traffic video feeds and intersection control data in an effort to provide seamless coordination and realtime traffic conditions. The County's TOC is located on South Horseshoe Drive. The City's TOC is located at 295 Riverside Circle..

6. Amount of CMS/ITS funds being requested **\$250,000**
7. Estimated Total Project Cost **\$350,000 Includes \$100,000 of City and County staff time to assist a consulting firm.**
8. Anticipated time to complete the project **14 months**
9. Does this project require the acquisition of Right-of-Way? YES NO

PROJECT DESCRIPTION:

CHECK ALL STATEMENTS BELOW THAT APPLY TO THE PROJECT WITH DOCUMENTED EXPLANATION OF HOW IT APPLIES:

- Uses a Transportation System Management (TSM) approach through management and operations enhancements (i.e. intersection improvements, signal improvements, special events management strategies, incident management). Attachment?

A study to evaluate advantages, disadvantages, efficiencies and impairments of City and County TOC consolidation has the potential to improve operations and reduce operating cost.

- Uses a Travel Demand Management (TDM) strategy to reduce traffic congestion and increase efficiency of the system (i.e. carpooling, vanpooling, transit, park and ride facilities, bicycle and pedestrian transportation). Attachment?

A study of TOC consolidation may result in demonstrating reduced vehicle delay, improved operational response time, better control of traffic management during emergency vehicle response. This project is consistent with the Collier County MPO adopted Long Range Transportation Plan. Its major components include:

- Increase the safety of transportation for non-motorized users
- Increase the security of transportation system for non motorized users
- Increase the accessibility and the mobility options available to people
- Protect and enhance the environment, promote energy conservation and improve quality of life
- Enhance the integration and connectivity of the transportation system, across and between modes for people.

Supports/enhances and effectively integrates with the existing Intelligent Transportation System (ITS) architecture (i.e. signal optimization, automatic vehicle locators for transit, signal cameras, motorists' information systems, incident management, signal preemption). Attachment?

A study may determine improved operational response time and less vehicular delay while better controlling traffic.

Increases Security (i.e. improves a hurricane evacuation route, addresses a documented security condition for transit). Attachment?

A study may determine improved video surveillance resulting in better communications.

Increases Safety (i.e. reduces crashes, injuries, or fatalities, addresses a documented safety problem). Attachment?

A more efficiently operated TOC can provide services that improve safety, emergency response within the City/County/State transportation network.

Promotes Regional Connectivity (i.e. improves level of service of inter-county highway or transit, enhances the inter-county connectivity of pathways/bikeways/trails). Attachment?

A study of TOC consolidation would encompass Countywide regional connectivity.

Promotes Multi-Modal Solutions (i.e. increase transit ridership, increase number of covered bus shelters, increase connectivity between motorized and non-motorized modes). Attachment?

Protect Environmental Resources (i.e. reduce air quality emissions, reduce travel time delay, reduce fuel consumption). Attachment?

A study would determine reductions in power consumption, equipment and redundant operations that may result in the conservation of environmental resources and taxpayer funds.

Promotes Economic Development or Freight Movement (i.e. increase accessibility to major employment centers, increase accessibility to freight activity center). Attachment?

Other. Attachment?



CMS/ITS Projects

Because CMS/ITS projects are generally short term and immediate action projects, their role in the LRTP process is modest and are more thoroughly addressed in the congestion management process. In the Collier 2040 LRTP, a block of funds has been set aside by the MPO to address CMS/ITS projects. The current TIP includes several improvements to the traffic management center, arterial monitoring cameras, and other traffic equipment improvements, which are not tied to specific facilities. Currently included for construction in the 2015-2020 TIP are the physical improvement CMS projects listed below:

- Golden Gate Parkways/Livingston Road turn lanes
- Pine Ridge Road Turn Lanes (various locations)
- Immokalee Road at CR 850 (Corkscrew Road) turn lanes

Future CMS/ITS projects will be drawn from the Needs Assessment as described previously, and by established MPO practice will be funded through the 40% set-aside of TMA funds in the CFP. During the 2021-2040 planning period, \$37.3 M has been set-aside for CMS/ITS projects.



New Bridge Program

As mentioned previously, the New Bridge Program is funded largely by a 20% set-aside of TMA fund totaling \$18.7M for the 2021-2040 planning period. While not sufficient to fund all the new bridge needs, as in highways, transit and pathways, the MPO will continue to pursue other funding options that may come available.

2040 Cost Feasible Plan - Summary of Funded Projects Grouped by Funding Source with Costs Shown in Future Year of Expenditure (YOE) in Millions of Dollars

CF#	Facility	From	To	Mile Existing Lanes	Project Length (Miles)	Project Type	2021-2025		2026-2030		2031-2040		YOE COST
							PE	ROW	PE	ROW	PE	ROW	
43	SR 29	North of SR 82	Collier/Handy Lane	2	2.4	2-Lane Roadway to 4 Lanes with Paved Shoulders (Includes milling and resurfacing of existing pavement)	\$0.00	\$0.00					\$0.00
60	SR 29	I-75 (SR 93)	Oil Well Rd	2	10.2	2-Lane Roadway to 4 Lanes with Paved Shoulders (Includes milling and resurfacing of existing pavement)	\$55.87	\$4.66	\$6.59	\$3.23			\$9.82
4	I-75	Collier Blvd (CR 951)				Interchange, Single Point Urban					\$9.34		\$55.87
	TMA BOX (20%) Bridges										\$18.67		\$18.66
	TMA BOX (40%) Pathways (Bike/Trail)										\$17.31		\$17.31
	TMA BOX (40%) CMP										\$18.67		\$18.67
2	Golden Gate Parkway	I-75				(New) 2-Lane Ramp	\$9.32	\$9.32					\$18.64
3	Pine Ridge Rd	I-75				Inspection Traffic Segmentation	\$1.54	\$6.35					\$3.13
7	Immokalee Rd	I-75 Interchange				Inspection Traffic Segmentation	\$1.54	\$6.35					\$7.15
12	US 41	SR 41 (SR 45)	Levy/Collier County Use	2	1.5	2-Lane Roadway to 4 Lanes with Sidewalks, Bike Lanes, and Curb & Gutter (Includes milling and resurfacing of existing pavement)	\$2.75	\$2.75	\$32.55				\$4.00
18	SR 84 (Down Blvd)	Airport Pulling Rd	Santa Barbara Blvd	4	3	4-Lane Roadway to 6 Lanes with Sidewalks, Bike Lanes, and Curb & Gutter with Inside Paved Shoulder (Includes milling and resurfacing of existing pavement)	\$33.11	\$6.85	\$77.68				\$44.51
19a	Critical Needs Intersection (Sandall Blvd at Immokalee Road)	Immokalee Road	8th Street			Interim At-Grade Intersection Improvements, Including Planing to 8th Street	\$4.00	\$5.08					\$5.08
21	US 41	Goodlette Rd		N/A		Intersection	\$2.00	\$6.37					\$2.91
41	SR 951 (Collier Blvd)	South of Mainline Rd	North of Tower Rd	4	1	4-Lane Roadway to 6 Lanes with Sidewalks, Bike Lanes, and Curb & Gutter (Includes milling and resurfacing of existing pavement)	\$13.35	\$2.00	\$20.03				\$22.05
15	US 41 (SR 90) (Tamiami Trail East)	Greenway Rd	6 E Farm Rd	2	2.6	2-Lane Roadway to 4 Lanes with Outside Paved Shoulders (Includes milling and resurfacing of existing pavement)	\$21.83	\$6.01	\$25.59	\$41.70			\$73.30
5	US 41 (SR 90) (Tamiami Trail East)	Collier Blvd (CR 951)	Green Blvd	4	2	4-Lane Roadway to 6 Lanes with Sidewalk, Bike Lanes, and Curb & Gutter (Includes milling and resurfacing of existing pavement)	\$41.14	\$8.00	\$10.30				\$10.30
9	CR 951 (Collier Blvd)	Golden Gate Canal	Green Blvd	4	2	Ultimate intersection improvement	\$31.00	\$3.86	\$4.68	\$55.48			\$41.76
19b	Critical Needs Intersection (Sandall Blvd at Immokalee Road)	Immokalee Road	8th Street			Ultimate intersection improvement	\$31.00	\$3.86	\$4.68	\$55.48			\$41.76
14p	Vanderbilt Beach Rd	CR 951 (Collier Blvd)	8th St	0 & 2	6	Expand from 0 & 2 lanes to building 2 lanes of a 4 lane footprint from Collier Blvd to Wilson Blvd and 2 lanes from Wilson to 8th St	\$12.88	\$7.15					\$89.01
40	Airport Pulling Rd	Vanderbilt Beach Rd	Immokalee Rd	4	2	2-Lane Roadway to 4 Lanes with Outside Paved Shoulders (Includes milling and resurfacing of existing pavement)	\$5.00	\$6.35					\$7.57
25	Oil Well Rd (CR 656)	Everglades Blvd	Oil Well Grade Rd	2	3.9	2-Lane Roadway to 4 Lanes with Outside Paved Shoulders (Includes milling and resurfacing of existing pavement)	\$20.00	\$3.00	\$30.00				\$30.00
33	Veterans Memorial Blvd	Langston Road	US 41	2	2.9	2-Lane Unimproved Roadway with Sidewalks, Bike Lanes and Curb & Gutter	\$8.00	\$1.00	\$13.00				\$15.00
20	Immokalee Rd	Camp Meas Rd	Canal St	2	2.5	2-Lane Roadway to 4 Lanes with Sidewalks, Bike Lanes, and Curb & Gutter (Includes milling and resurfacing of existing pavement)	\$25.04	\$5.74	\$37.56				\$65.81
56	Benfield Road	City Gate Boulevard North	Lords Way	0	3.9	2 lane roadway in a 4 lane footprint	\$56.47	\$3.83	\$21.21	\$43.72			\$141.16
29	Wilson Boulevard/Black Burn Road	Wilson Boulevard	Edge of Haal Road	0	2.6	2 lane roadway in a 4 lane footprint	\$29.31	\$6.83	\$30.20	\$38.20			\$73.28
51	Wilson Blvd.	Golden Gate Blvd.	Immokalee Rd.	2	3.3	2-Lane roadway to 4 lanes	\$23.36	\$3.86	\$23.47	\$46.63			\$68.94
73	Little League Rd. Ext.	SR 82	Westbox St.	0	3.7	New 2 lane roadway	\$28.02	\$3.86	\$17.05	\$53.52			\$74.42
	Future County Highway Funds					Project to be determined at a later date	\$9.12	\$10.47	\$64.17	\$121.78			\$121.78
14p	Vanderbilt Beach Road Ext	Collier Boulevard	8th Street	2 & 0	6	Add remaining 3 lanes	\$39.97	\$26.35	\$76.34	\$76.34			\$76.34
34	Camp Meas Road	Immokalee Road	Pope John Paul Blvd.	2	2.6	2-Lane Roadway to 4 Lanes with Outside Paved Shoulder (Includes milling and resurfacing of existing pavement)	\$10.00	\$2.76	\$39.30	\$21.86			\$21.86
36	Vanderbilt Beach Road	Airport Road	US 41	4	2.1	4-Lane Roadway to 6 Lanes with Sidewalks, Bike Lanes, and Curb & Gutter (Includes milling and resurfacing of existing pavement)	\$4.00	\$3.10	\$6.00	\$9.10			\$9.10
32	Immokalee Rd (CR 646)	SR 29	Airport Blvd	2	0.4	2-Lane Roadway to 4 Lanes with Sidewalks, Bike Lanes, and Curb & Gutter (Includes milling and resurfacing of existing pavement)	\$4.66	\$3.10	\$4.69	\$7.75			\$15.55
							\$68.31	\$70.83	\$21.17	\$244.70	\$566.62		\$1,183.91
													\$780.09

Notes: Design shows funded by O&M not included in total. 2015 and 2016 are early partial ROW & Right-of-Way costs.

Project Phase	2021-2025		2026-2030		2031-2040	
	Revenue	Spent	Revenue	Spent	Revenue	Spent
TMA	\$23.31	\$23.29	\$0.03	\$23.32	\$0.03	\$46.64
ROW	\$56.40	\$58.10	\$2.50	\$55.10	\$115.00	\$144.95
SR	\$46.89	\$55.89	\$0.00	\$0.00	\$9.82	\$9.82
County	\$106.82	\$138.28	\$1.54	\$78.42	\$436.84	\$434.74
						\$18.10
						\$15.55
						\$1,183.91
						\$566.62
						\$780.09



THE CITY OF NAPLES & COLLIER COUNTY TMC CO-LOCATION FEASIBILITY STUDY



PREPARED FOR

FLORIDA DEPARTMENT OF TRANSPORTATION, DISTRICT 1

Project Manager: Katherine Chinault

801 N. Broadway Avenue

Bartow, Florida 33830

DOCUMENT CONTROL PANEL		
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	Penny Kamish, Metric Engineering	5/8/2017
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	Penny Kamish, Metric Engineering	8/7/2017
	Jessica Renfrow, P.E., Metric Engineering	8/8/2017
	Jessica Renfrow, P.E., Metric Engineering	9/26/2017
Completed By:		

Attachment: FDOT Co-location Feasibility Study (4981 : City of Naples and Collier County TMC Co-location Feasibility Study)

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Acronyms and Abbreviations

ACL.....	Access Control List
APL.....	Approved Products List
ATMS	Advanced Traffic Management System
ATTS.....	Arterial Travel Time System
CCTV	Closed Circuit Television
CONOPS.....	Concept of Operations
CCTO.....	Collier County Traffic Operations
FDOT	Florida Department of Transportation
FDOT D1	Florida Department of Transportation, District One
FON.....	Fiber Optic Network
GBPS.....	Gigabits Per Second
GEC.....	General Engineering Consultant
IT.....	Information Technology
ITS.....	Intelligent Transportation Systems
IVEDDS	Interagency Video and Event Data Distribution System
LAP	Local Agency Program
MOU	Memorandum of Understanding
MVDS.....	Microwave Vehicle Detection Sensor
NPD.....	Naples Police Department
PTZ	Pan, Tilt, Zoom
RTMC	Regional Transportation Management Center
SOG.....	Standard Operating Guidelines
SOP	Standard Operating Procedures
SWIFT.....	SouthWest Interagency Facility for Transportation
TMC.....	Traffic Management Center
VLAN	Virtual Local Area Network
VMS.....	Variable Message Signs

1 Executive Summary

The Florida Department of Transportation, District One (FDOT D1), commissioned a task to assess the potential opportunity to co-locate the Collier County and City of Naples TMCs and this report summarizes those efforts and the formal recommendation. These co-location efforts can be beneficial for managing multimodal transportation scenarios and leveraging communication infrastructure for traffic incident management.

This assessment analyzed if certain services provided by these two Maintaining Agencies could be more productive and cost-efficient through co-locating the two agencies' independent existing operations into a single TMC.

For this study, understanding the goals and objectives of each agency was imperative. Through stakeholder coordination, we identified goals and objectives of each agency, as well as key potential advantages and disadvantages of co-location for each agency. The feasibility study took each agency's top goals and objectives, weighted them by importance, analyzed existing operations independently, and analyzed the potential effects of co-location.

The following grading criteria was used to rank each agency's current operations and potential operations if both agency's TMCs were to co-locate.

1	2	3	4	5
Unsatisfactory	Satisfactory	Good	Excellent	Optimized
No monitoring ability. Slow/no response to incidents. Minimal technology.	Limited monitoring ability. Reactive approach to incidents. Outdated technology. Processes are developing. Limited accountability.	Monitors regularly. Responds to incidents. Changes signal timing as needed. Limited regional interconnectivity. Coordination with partners is limited. Mix of outdated technology and new technology. Documented processes.	Monitors regularly, has automated alarms. Proactive approach to incidents. Pre-defined signal timing plans for incident response. Seamless coordination process with region. Newer technology. Data sharing.	Automated monitoring alerts. Fully connected network. New technology. Highest level of capability. Real-time reporting.

Both agencies had goals that included the following language, "optimal level of service throughout the network" and "interconnected transportation system to all users". And both agencies indicated key advantages to co-location; "better coordinated response to incidents" and "faster and more efficient sharing of data", both of which correlate directly with the goals stated above. After ranking each option by agency, it was concluded that co-location would benefit both the City, County and ultimately the motorists by being able to better manage traffic and incidents throughout the region. Having both agencies in one location would help by minimizing the coordination efforts required to successfully manage the existing transportation network and future connectivity.

2 Introduction

2.1 Purpose of this Document

This document serves as a feasibility study to assess the opportunity to co-locate the Collier County and the City of Naples TMCs. While the task was to conduct a comprehensive consolidation feasibility study, the terminology was better defined as a co-location feasibility study. After meeting with the respective agencies, each had expressed concerns with the term “consolidation” – as such efforts, can many times include discarding the individual operating characteristics of the respective agencies in favor of a joint structure. Consolidation is often associated with staff reductions as operational structures and job duties are rearranged. However, for the purpose of this document co-location is defined as two agencies operating individually, within a shared facility. Co-location efforts would be geared towards managing multimodal transportation and leveraging infrastructure for the benefit of traffic incident management. TMCs often have to reach across jurisdictional boundaries to collect information for the entire road network to truly understand traffic operations within their own jurisdiction. Having both agencies in one location would help by minimizing the coordination efforts required to successfully manage the existing transportation network and future connectivity. This document identifies areas in which the co-location within a single TMC may bring about improvements, changes in level of service provided to the community, changes in incident management and the necessary steps needed to successfully co-locate two independent agencies. This report will also explain any negative impacts of co-location. The overall purpose of the document will be to determine if benefits will be realized by regionalizing these two respective TMCs.

2.2 Document Organization

The Feasibility Study includes a background of the existing TMCs, their business functions, and Standard Operating Procedures (SOP), which includes the deployed signal and Intelligent Transportation System (ITS) technologies. Further, it evaluates two options, separate TMC environments or the proposed co-located environment. Additionally, this document is intended to convey the agency needs and the proposed environment expectations to help foster a consensus among the stakeholders as to how to proceed with co-location efforts.

This document is organized as follows:

- Section 1 – Executive Summary
- Section 2 – Introduction
- Section 3 – Existing Systems and Requirements
- Section 4 – Description of Co-Location
- Section 5 – Feasibility Assessments
- Section 6 – Final Professional Recommendation

2.3 Scope

The Florida Department of Transportation, District One (FDOT D1), through the District Wide Intelligent Transportation Systems (ITS) General Engineering Consultant (GEC) Contract, requested the assistance of Metric Engineering, Inc. (Metric) to be utilized to conduct a comprehensive study to assess the opportunity to co-locate the Collier County and the City of Naples TMC.

Metric is comprised of transportation professionals with sectors specializing in traffic operations, intelligent transportation systems (ITS), and systems engineering. Metric was utilized for this study due to their experience with TMC Operations since they operate the District 2 RTMC. The District 2 RTMC has multiple agencies co-located within the facility, which gives Metric a unique perspective into the co-located environment.

For this study, Metric is responsible for all activities related to project management, meetings and coordination, stakeholder coordination, conducting operational and technological analyses, and developing a final report of all findings. This scope of work requires Metric to coordinate with all required stakeholders to discuss the potential impacts of co-location. The scope also requires Metric to review all business functions related to each TMC such as services provided, staffing, standard operating procedures, partner agency coordination, operations and maintenance costs, technologies used, agency goals, performance measures and other elements to determine a recommended solution for FDOT D1.

3 Existing Systems and Requirements

3.1 Existing System Matrix

To better compare the existing system components for both Collier County and the City of Naples, the following matrix was created. This comparison illustrates the current snapshot of the hours of operation, existing staffing, response times, and ITS/ATMS infrastructure deployed among each governmental agency.

Current Operations Matrix				
		Collier County	City of Naples	
Hours of Operation		M-F, 6:30am-6:00pm	M-F, 7:30am-4:30pm	
Existing Infrastructure/ Staff Numbers	TMC Operator	1 FTE*	1 FTE*	
	Signal Engineers	5	2	
	Signal Technicians	7	4	
	Infrastructure Locate Tech	3	0	
	Network/IT Staff	3	1	
	After Hours	2 - On-Call	1 - On-Call	
	Traffic Signals	212	35	
	- Connected by Fiber	191	28	
	- Emergency Signals	13	1	
	VMS	6	0	
	CCTV Cameras	196	35	
	Detection Types			
	-Loops	Yes	Yes	Yes
-Video	Yes	Yes	No	
-MVDS	Yes	Yes	No	
-Bluetooth	Yes	Yes	No	
-Pucks	Yes	Yes	No	
Current ATMS Software**	Siemens - ACTRA	Siemens - TACTICS	Siemens - TACTICS	
Signal Failure Response Time (After Normal Business Hours)				
--Flash	2 Hours	2 Hours	2 Hours	
--Pedestrian	2 Hours	2 Hours	2 Hours	
--Side Street	2 Hours	2 Hours	½ Hour	
* 1 Full Time Equivalent (FTE) – Multiple employees perform TMC Operations duties in addition to their other full-time responsibilities.				
**A new ATMS Software Vendor was recently chosen for both the City and County.				

3.1.1 Collier County

The Collier County TMC operates Monday through Friday from 6:30 a.m. to 6:00 p.m. and has 2 on-call staff for after-hours coverage. Between multiple employees, the following services are

managed through the County Traffic Operations team: signal timings; design; roadway sign maintenance; street lights; signals complaint hotline; network connectivity and communications; roadway incidents; special events; and other infrastructure. The TMC's primary functions are traffic signal management, signal timing management, incident management, and overall traffic monitoring. A key function of the TMC is to respond to traffic related issues by evaluating, assessing and taking appropriate actions as necessary including dispatching signal crews to the proper signalized intersection. The TMC operates traffic signal controllers remotely to implement traffic management strategies at signalized intersections based on traffic conditions, incidents, emergency vehicle preemptions, pedestrian crossings, etc. TMC personnel diagnose field equipment malfunctions which may include detection failure. These malfunctions are reported and tracked for repair and/or replacement of the failed equipment.

The current annual operating budget for the County TMC is \$898,600 and includes over \$500,000 set aside for facility overhead costs (lease space, phone, security, power, communications) and personnel, \$73,800 for operational costs, and \$317,600 for capital costs.

3.1.2 City of Naples

The City of Naples TMC operates Monday through Friday from 7:30 a.m. to 4:30 p.m. and has 1 on-call staff for after-hours coverage. Staffing of the TMC is shared between 6 employees. The following services are managed through the City Traffic Operations team: signal timings; network health; design; roadway sign maintenance; street lights; signals complaints; communications; roadway incidents; special events; and other infrastructure. The City also has the responsibility of coordinating signal timings, dispatching signal techs, incident management, responding to citizen complaints and traffic monitoring. The City TMC staff works very closely with the City of Naples Police Department to manage and mitigate traffic related issues. The TMC operates traffic signal controllers remotely to implement traffic management strategies at signalized intersections based on traffic conditions, incidents, emergency vehicle preemptions, pedestrian crossings, etc. TMC personnel diagnose field equipment malfunctions which may include detection failure. The City TMC's goals and functions are primarily the same as those of the County TMC.

The current annual operating budget for the City of Naples TMC is \$201,175 and includes \$26,700 per year for facility overhead costs (lease and utilities), \$30,000 in operational costs (service repairs, software upgrades, miscellaneous electronics, etc.), and \$50,000 in capital costs (servers, memory management units (MMUs), controllers, etc.). The rest of the budget is for personnel costs and other related costs.

3.2 Existing Performance Measures

Presently, the County and City are working to develop baseline performance measures as they continue to grow their respective programs. Below is the current break out of what each has begun to report on for each program.

3.2.1 Collier County

Currently, Collier County has established some performance measures for TMC operations and maintenance, both of which directly contribute to the success of the ATMS program. The following performance measures are represented in their quarterly dashboards.

The TMC operational performance measures are as follows:

1. Number of signal timing adjustments made
2. Number of vehicle detection issues
3. Number of Traffic Counts issues

The maintenance related performance measures are as follows:

1. Percent of ground preventative maintenance
2. Percent of Network uptime
3. Percent of Traffic system uptime
4. Percent of UPS uptime

Also, included in the dashboard is a device summary, number of devices connected, the number of work orders completed, number of communication outages and duration, the number of ground and aerial PMs that are conducted, the percent of operational signals, the number of calls to the TMC, and number of work orders generated. While a baseline has not been established, the County started reporting with the quarterly dashboard for October 2016 through December 2016. Refer to Appendix A for example dashboard reports from Collier County.

3.2.2 City of Naples

The City has also established performance measures for TMC operations and maintenance. The performance measures within the City's quarterly dashboard are divided into three categories: notifications, incident detection, and reports generated.

The notification performance measures are as follows:

1. Number of congestion notifications
2. Number of critical malfunction notifications
3. Number of Preventative Maintenance visits performed

The incident detection performance measures are as follows:

1. Number of TMC Systems Administrator Tasks Performed
2. Average incident detected to notification time in minutes
3. Number of accidents along the corridor
4. Volumes for each month, by monitoring site location

The reports generated performance measures are as follows:

1. Number of detection failure reports
2. Number of Traffic Monitoring Requests

Also, included in the dashboard is a device summary, number of devices connected, and definitions used within the dashboard. The performance measures published are for the US 41 corridor, which is the only State route, within the City of Naples. While a baseline has not yet been established, the City just published their first quarterly dashboard for January 2017 through March 2017. Refer to Appendix A for example dashboard report from City of Naples.

3.3 Existing Coordination with other Agencies

3.3.1 Collier County

Collier County consists of the following jurisdictions: City of Naples, Marco Island and Everglades City. The City of Marco Island and Naples maintain signals within their respective city limits (see section 3.3.3 Jurisdictional Boundaries).

Collier County also has a working relationship with local law enforcement agencies, emergency management centers and citizen advisory groups.

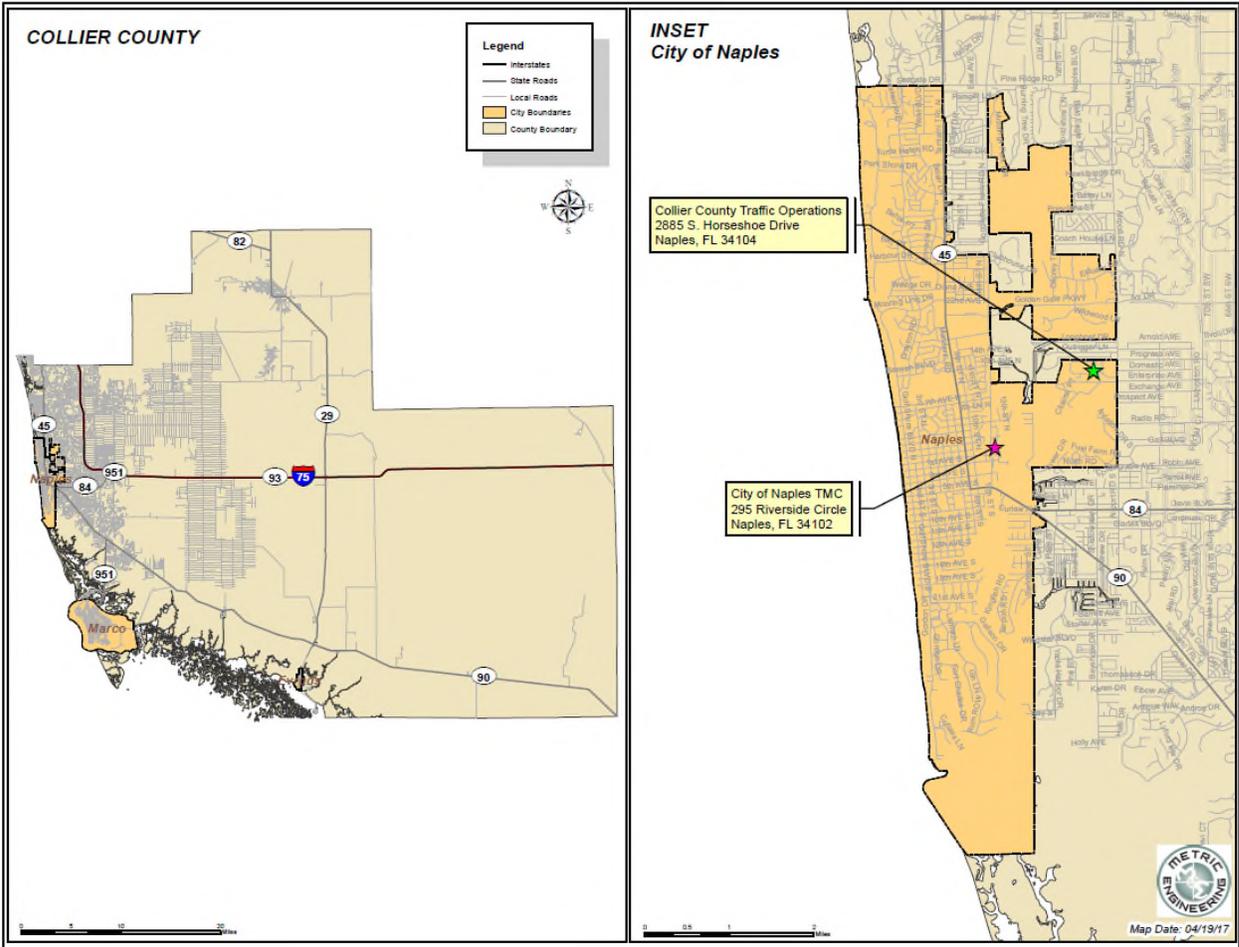
The District 1 Regional Transportation Management Center (RTMC), named the SouthWest Interagency Facility for Transportation (SWIFT) SunGuide Center, also regularly communicates with Collier County regarding incidents on the freeway system that might affect arterial roadways within their jurisdiction.

3.3.2 City of Naples

The City of Naples TMC covers the geographic region within the city limits, with a few exceptions of signals maintained by Collier County. Currently, the city regularly coordinates with Collier County and the City of Naples Police Department (NPD). The City provides CCTV camera access to NPD to assist with traffic monitoring during incidents or events. NPD is authorized to utilize PTZ control from 5 p.m. to 7 a.m.

3.3.3 Jurisdictional Boundaries

On the following page is a map of the jurisdictional boundaries for both Collier County and the City of Naples.



Attachment: FDOT Co-location Feasibility Study (4981 : City of Naples and Collier County TMC Co-location Feasibility Study)

3.4 Data Center Equipment and Space

3.4.1 Collier County

The County TMC is currently located at 2885 Horseshoe Drive South in Naples, Florida. The Collier County signal system is currently comprised of 212 total signalized intersections, of which 191 are networked back to the TMC for remote monitoring. Collier County has existing controllers, ATMS software, adaptive technology, servers, and a video wall that are all past end-of-life. Currently, the signals are monitored through Siemens ACTRA software. However, infrastructure upgrades are in the process of being made to the Video Wall and ATMS systems for the County. While the contracts are still being finalized, the intent is that these procurements will update the existing video wall systems, controllers and central management software for the County's use. At this time, there is no connectivity between Collier County and City of Naples.

3.4.1.1 Fiber Optic Infrastructure

As network connectivity to the roadside devices must be reliable, the County has determined the most effective and dependable transmission media is a fiber optic network. This communication medium is superior to others (such as copper or wireless) in that it can carry large amounts of data long distances at high speeds and with great fidelity. Collier County operates and maintains over 150 miles of optical fiber located along the roadway connecting 191 signals. The County's fiber optic network allows for secure and reliable connectivity between the roadside devices and the TMC. In addition to the fiber optic infrastructure, five-percent (5%) of the connected signals communicate through wireless connections.

3.4.1.2 Closed Circuit Television (CCTV) Cameras

Collier County currently operates and maintains 196 CCTV cameras with pan, tilt, zoom (PTZ) capabilities. Real-time observation of the roadways is an indispensable tool for the agency. By utilizing CCTV Cameras, the County has the ability to monitor traffic and identify traffic conditions on a real-time basis, whether during normal free flowing traffic conditions or non-free flowing conditions such as incidents, work zones, special events, congestion, and weather events.

3.4.1.3 Video Wall

Collier County currently utilizes an existing video wall system to monitor the flow of traffic on the roadways. The TMC operations staff also utilizes the current video wall system to monitor weather related impacts, signal network information and real-time network congestion, to determine driver delays, construction activities, and equipment malfunctions, in addition to vehicular incidents. This existing video wall system is scheduled to be replaced with a new state of the art, software based video wall system this fiscal year (FY 2018).

3.4.1.4 Microwave Vehicle Detection Sensor

The County uses Microwave Vehicle Detection Sensors (MVDSs) to detect vehicles in the dilemma zone and at the stop bar, vehicle speeds, and roadway occupancy. The MVDS also provide traffic counts to transportation planning and external agencies. This data assists with developing timings for the intersection and/or corridor. The County has deployed 39 MVDS with an additional 49 in procurement.

3.4.1.5 Network Security

The County has implemented network security policies and procedures to minimize the risk of unauthorized network access. The County has also installed both hardware (e.g. firewall) and software (e.g. Antivirus) to protect the County's network and systems from malicious attacks, intrusion and accidental issues. The County currently utilizes both Cisco ASA Firewall and Cisco AnyConnect VPN Software to help keep the network secure. Protecting the County's traffic management network is one of the County's top priorities. Currently there is a Local Agency Program (LAP) project for Collier County to upgrade the existing Information Technology (IT) infrastructure. This includes updating the ATMS software to monitor the signal status of the signals connected through the fiber optic network. Additionally, a network management system, SolarWinds and Putty software are utilized to monitor and report network traffic issues.

3.4.2 City of Naples

The City of Naples currently operates a Traffic Management Center to monitor traffic and manage incidents along their designated roadways. The TMC is currently located at 295 Riverside Circle within the city limits and maintains 35 signalized intersections, 28 of which are monitored remotely by the TMC. Remote monitoring is vital to the City of Naples signal operation as it enables the TMC Operations staff to remotely troubleshoot and diagnose the field equipment for failure or malfunction. The City has existing controllers, ATMS software, and a video wall that all have passed end-of-life. Currently, the signals are monitored through Siemens TACTICS software. Infrastructure upgrades are in process for the Video Wall and ATMS systems for the City.

3.4.2.1 Fiber Optic Infrastructure

Currently, the City of Naples has fiber optic infrastructure connecting 28 signals. The fiber optic infrastructure plays a key role in their ability to monitor the signal operations remotely. The City currently maintains approximately 30 miles of fiber optic infrastructure along its roadways.

3.4.2.2 CCTV Cameras

The City of Naples currently operates and maintains 35 CCTV cameras. Real-time observation of the roadways is an indispensable tool for the City of Naples. To increase operator efficiency, camera presets are used to view pre-defined positions of the roadway and intersections to detect incidents or vehicular backups on the roadway. When an incident is located, the camera will be manually adjusted to the specific incident location to determine the lanes affected and the potential impact of the incident.

3.4.2.3 Video Wall

The City currently utilizes an array of video monitors to observe the flow of traffic on the roadways. The TMC operations staff also utilizes the current video wall system to monitor weather related impacts. The Department has programmed a video wall upgrade that will replace the current monitors with new 46" displays in a 2 x 4 configuration. By replacing the monitors with new displays, the City of Naples can upgrade their current operations to better monitor traffic on the roadways.

3.4.2.4 Network Security

Protecting traffic signal and video images is one of the City's top priorities. To minimize risk to unauthorized network access, the City has implemented network security policies and procedures. These policies and procedures guarantee that at no time, will a computer have the ability to establish simultaneous network connections between the TMC and a secondary network. The City has also installed both hardware (e.g. double firewall) and software (e.g. Antivirus) to protect the City's network and systems from malicious attacks, intrusion and accidental issues.

4 Description of Co-Location

4.1 Overview of Co-Location

Co-location would include leveraging joint resources such as the building space, video wall, network equipment, work stations, data center, field infrastructure (FON), and personnel. To ensure the success of joint operations, an Interlocal agreement between Collier County and the City of Naples must be developed and executed. A Memorandum of Agreement (MOA) would need to be developed to serve as the interlocal agreement to initiate this cooperative process. Other measures, such as a joint standard operating procedures (SOP), will be necessary as the two agencies further embark upon co-location. The current state of operations of both the County and the City creates an opportune time to begin evaluating the idea of co-location, as each agency is beginning the task of upgrading or replacing equipment that has reached its end of life, the County is in the process of acquiring new ATMS software for both it and the city, and the city has outgrown their current Traffic Operations Center. It is anticipated that the co-located TMC would have five (5) workstations; one each for both the county and city to have a signal engineer present (as needed), one for a joint full-time system operator, and two spare workstations. The video wall would consist of twenty-six (26) - 55" video monitors, eighteen (18) of which would be designated for Collier County and eight (8) would be designated for City of Naples. These numbers were decided by a ratio of how many cameras each agency has, but can be finalized at a later time. Additional requirements are below.

4.2 Proposed Building Requirements

The building for the proposed co-location would need to be large enough to house the staff and support equipment for both agencies; approximately 6,000 square feet at a minimum. This square footage would include the proposed video wall, data center, workstations, and shared office space. The building would also require a robust enough HVAC system to handle the ITS network components within, and have the redundancy necessary to ensure the climate control for equipment, such as the servers. Since the building will house the staffing and core equipment to support both the county and city networks, backup generators, fire suppression system, and an uninterruptible power supply (UPS) will be necessary to ensure that equipment is not affected by momentary loss of power and must maintain network connectivity. The building will need to be hurricane rated and will also need physical access restriction of a type agreed upon by both the city and county to ensure that opportunities for unauthorized entry are minimized.

4.3 Personnel Requirements

The new joint operator position(s) would be staffed for full-time hours and potentially could require multiple operators during peak hours, if deemed necessary. This position would be responsible for checking all signalized intersections, responding to any calls, observing

problematic signal intersections when needed, and providing basic trouble-shooting procedures, as designated by each agency. The responsibilities for the operator would be documented within the joint standard operating guidelines. The signal engineer or technician that would sit at a workstation within the TMC would most likely be responsible for pre-defined temporary signal timing changes as indicated for non-recurring congestion and planned special events, dispatching locates, coordinating fiber issues, responding to motorist complaints, troubleshooting field issues remotely, and monitoring the overall health of the system. The joint operator position would help relieve every day operational duties from existing staff that have been helping with these duties on top of their normal duties.

4.4 Technical Requirements

Once the Interlocal Agency Agreement is established, each governmental agency will have both individual and joint technological requirements for the co-location of TMC operations. The agreement would require that each party bear a proportional share of the ongoing operational and maintenance costs of the TMC. These requirements have the ability to change as the dynamics of the technology supporting traffic flow and traveler safety constantly improve. The technical requirements will be unique to each governmental agency; however, the suggestion would be for the co-located operations staff to respond to roadway incidents as if it was a single governmental entity.

Due to each agency's individual requirements, a clear line of delineation is preferred within a co-located TMC. These individual agency requirements can be operated under an umbrella of joint requirements that are agreed upon in advance by both agencies and should be outlined in a joint standard operating procedures (SOP) document. This will allow each of the agencies the opportunity to deploy, maintain and operate equipment using strategies that will suit the needs of the individual department while still maintaining consistency with the overall joint goals. In the event of an overall TMC equipment failure (i.e. video wall) either agency will have the ability to establish temporary communications, from their home office location, and allow for the TMC staff to view the roadways without issue until the failed equipment can be either repaired or replaced.

4.4.1 Server Equipment

Traffic Management Centers commonly deploy numerous servers to provide the operations staff with the ability to perform proper incident management. This co-located TMC will follow the same model but with one major improvement. Due to the costs and environmental impacts of deploying a TMC with an industry standard data center, consideration is given to the possibility of deploying a virtual server environment. A virtual environment would reduce the server's footprint thus allowing each agency the ability to house all their server hardware in a co-located data center but still remain operationally separated. One advantage to this type of deployment

is that each agency has the ability to operate independently, as the other agency would replicate the data, which could be used as a secondary connection if a device failure were to occur. Finally, due to the reduction in equipment, the initial cost of investment and equipment is reduced, resulting in more physical space for future equipment deployment, and reducing the operations and maintenance costs for both agencies.

4.4.2 Network Connectivity

To allow each agency to view, monitor, and dispatch to roadside equipment failures and traffic incidents, each agency may have the ability to access every roadside device in the event of equipment failure or, as a co-located facility, have the ability to share operational labor resources. The preferred connection would be at the TMC network core devices; only a single redundant connection would be required for proper routing of the roadside devices, including multicast images from the CCTV cameras. This would aid in dissemination of all information between both agency partners for a seamless operation to the traveling public.

A secondary recommendation would be for each of the agencies' traffic signal networks to be operated independently but have the TMC and operations network reside on its own unique Virtual Local Area Network (VLAN). VLANs allow network administrators to group equipment together within the same virtually created network, although these devices may be spread out through the county and operated from different managed switches. This also gives both agencies the ability to operate their respective equipment as if it were segregated into its own private network, while still sharing physical network resources. Routing roadside traffic to this exclusive TMC network would allow for sharing of data between each agency while also adhering to all existing network security policies.

4.4.3 Network Security

As agency traffic signal and video images will be shared between both agencies, proper network security must be maintained at all times. In other co-located TMCs across the state, agencies commonly deploy firewalls to segment the network and block unwanted Ethernet traffic between the agencies and their required internet connections. Since the City and County's Ethernet networks will be visible to each other, a secondary option would be for each of the agencies to deploy Access Control Lists (ACLs). An ACL is a configuration tool which will only pass designated and/or approved network traffic between each of the proposed networks. If the network traffic is unauthorized and is not validated by the routing equipment, the router discards the data packets, preventing the traffic from being forwarded to its destination. Additionally, it is recommended that a network management system, like the ones used by Collier County presently, could be deployed to monitor and report network traffic issues. This would provide alerts and notifications to the system administrator and could also be a jointly shared resource for both agencies.

4.5 Operations and Maintenance Requirements

The interagency agreement between the City of Naples and Collier County will be important in establishing the operational and maintenance responsibilities for the co-located TMC. Both the City and County previously shared concerns about access to their respective engineering and technology departments, as well as maintenance warehouses, if the staff were to be co-located. The County has proposed property for a co-located TMC that is adjacent to their current operations. This location is 10-15 minutes away from the current City of Naples TMC. There could be operational impacts for the City to operate out of a remote TMC. These could be mitigated by innovative measures, such as remote management of IT resources.

4.6 Agreements/Affected Institutional Issues

For co-location to be feasible, a Traffic Management Center Operation and Maintenance Interlocal Agreement would be required between the City of Naples and Collier County. This agreement would help define the responsibilities of both agencies once they are co-located. Some of the necessary items to have in this agreement are the following: maintenance at the TMC Facility, technical support for the TMC, shared operator requirements and responsibilities, and reimbursement requirements. All of these components will need to be included in the agreement to provide clear understanding of responsibilities by all parties.

4.7 Overview of SOP, SOG, and Operations Changes Once Co-Located

For co-location, each agency will still have their respective standard operating procedures (SOPs) and standard operating guidelines (SOGs); however, there will be a need for the TMC to have a set of SOPs and SOGs followed by both agencies. These documents would need to be developed with input and buy-in from both the County and City. Important components to include would be daily operations for the shared operator, incident response protocols, maintenance dispatch and troubleshooting procedures, building procedures, general policies that are agreed upon, software procedures, and any additional information that will be used by both agencies. This would not replace each agency's individual SOPs and SOGs, but would be in addition to them.

4.8 Advantages of Co-Location

During discussions with the agencies, each agency had their own perspective on what advantages may be gained through co-location. Below are the possible key advantages communicated by each agency.

4.8.1 Collier County

- The reduction in operational and infrastructure costs
- Consolidation of system upgrades
- Centralized operations and improved cooperation between the City and the County
- Better coordination during incident response
- Improved working information and data sharing between agencies

4.8.2 City of Naples

- Coordination of traffic management system at jurisdictional boundaries, disjointed intersections
- Faster and more efficient sharing of data and information
- Programming and developing detours and by-passes for road closures, evacuations, and construction
- Additional hours of coverage

4.9 Disadvantages of Co-Location

During discussions, viewpoints on the disadvantages of co-location also differed by agency. From the stakeholder meetings with both agencies, the possible key disadvantages communicated from each agency are listed below.

4.9.1 Collier County

- The loss of autonomy
- Selected site of the co-located facility could present a hardship to some employees
- The introduction of another layer of management
- Finding a location suitable for both operations
- Added potential of staffing conflicts

4.9.2 City of Naples

- Negative impacts to the City's level of service (road, transit, bicycle, pedestrian, ride share, etc.)
- Requires more City staff and cost associated with additional space
- Different metrics for measuring performance results in policy and procedural conflicts
- Forces the use of identical hardware and software interfaces with little opportunity to use different technology specifically for City needs. City seeks to provide a balance in level of service for all roads whereas the County prioritizes mainline roadways

Fortunately, the disadvantages listed above can be minimized with effective communication and coordination up front from each agency embarking upon co-location. A well thought out Memorandum of Understanding (MOU) between the agencies is key to establishing roles, responsibilities and common ground between the City of Naples and Collier County. A joint SOP will further help to minimize any perceived disadvantages of co-location, as well as optimize its effectiveness.

4.10 Operating Costs of Co-Location

4.10.1 Operating Costs of Building

Capital costs for the actual construction of the potential co-located TMC, including all software and hardware, are not included as a part of this study. The costs within this category are for operating expenses including utilities, custodial services, maintenance services, security, ground maintenance, management fees, and telephone. From fair market research in this region, it is expected to cost approximately \$7.00 per building square foot annually to cover each of these expenses. For instance, if the co-located TMC building was 6,000 square feet, it could cost approximately \$42,000 annually for operating expenses of the building.

4.10.2 Operating Costs of Personnel

Based on the assumption that the joint operator would provide full-time hours and have secondary operators for peak-period times, the budget for operators is \$90,000 annually. The costs for additional personnel that would utilize the workstations would continue to be budgeted within their respective agency's TMC budget.

5 Feasibility Assessments

5.1 Costs of Each TMC Scenario

5.1.1 Co-Located

If the City of Naples and Collier County were to be co-located they would leverage their resources and infrastructure to potentially improve the operations for both agencies. Costs associated with operators, facility overhead costs, and operational costs will be shared and would provide an overall cost savings. For purposes of this study, the following assumptions were made for the new co-located TMC:

- Two joint-shared systems operator for 12 hour/day - 6 day/week coverage – average salary of each operator \$45,000. \$90,000 annually.
- Overhead utility, maintenance services, ground maintenance, etc. is approximated at \$7.00 per square foot annually. Assuming a 6,000-square foot stand-alone building. \$42,000 annually.

With the assumptions above, the total operational costs would be approximately \$132,000 annually.

5.1.2 Separate

5.1.2.1 Collier County

Collier County currently budgets around \$900,000 annually for their TMC operations. This includes a full-time equivalent (FTE) operator to monitor the TMC, as well as other personnel as shown in Section 3.1, overhead costs, operational costs (computers, electronics, service repairs, software upgrades, and other miscellaneous operational costs), and capital costs (servers, cameras, controllers, monitors, new software, and other hardware devices).

5.1.2.2 City of Naples

City of Naples currently budgets around \$201,175 annually for their TMC operations. This includes a full-time equivalent (FTE) operator to monitor the CCTV Cameras and calls that come into the City. Costs also include overhead costs (leased space, power, communications), operational costs (computers, electronics, service repairs, software upgrades, and other miscellaneous operational costs), and capital costs (servers, cameras, controllers, monitors, new software, and other hardware devices).

5.2 Decision Scoring Matrix and Criteria

To be as objective as possible, the decision matrix and scoring criteria were established by each agency. Each agency provided their top specific goals and how much weight is associated with

each, based on importance. We then used the following scoring system to rank each goal. The goals were ranked by option: separate operations and co-located operations. The rankings are shown in the following table.

1	2	3	4	5
Unsatisfactory	Satisfactory	Good	Excellent	Optimized
No monitoring ability. Slow/no response to incidents. Minimal technology.	Limited monitoring ability. Reactive approach to incidents. Outdated technology. Processes are developing. Limited accountability.	Monitors regularly. Responds to incidents. Changes signal timing as needed. Limited regional interconnectivity. Coordination with partners is limited. Mix of outdated technology and new technology. Documented processes.	Monitors regularly, has automated alarms. Proactive approach to incidents. Pre-defined signal timing plans for incident response. Seamless coordination process with region. Newer technology. Data sharing.	Automated monitoring alerts. Fully connected network. New technology. Highest level of capability. Real-time reporting.

5.2.1 Criteria Included

5.2.1.1 Collier County Goals

After discussions with Collier County, the top 5 specific goals and objectives for Collier County TMC Operations are as follows:

1. To monitor the traffic signal system and Intelligent Transportation System (ITS) devices in order to provide an optimal level of service throughout the network.
2. To manage incident impacts by adjusting signal timings as they occur while coordinating with the Collier County Sheriff’s office.
3. To monitor the health of the network and associated devices to ensure continual connectivity.
4. To implement new technologies to improve traffic operations and reduce congestion.
5. To manage Variable Message Boards that advise the public, concerning special events that will impact traffic.

5.2.1.2 City of Naples Goals

After discussions with the City of Naples, the top 3 specific goals and objectives for their TMC Operations are as follows:

1. To provide the most safe and efficient multi-modal, interconnected transportation network system to all users.

2. To provide the highest level of response to incidents by way of emergency notification, signal timing adjustments, and general support.
3. To collect and share data, video, and other information to designated partners and in limited form to the general public.

5.2.2 Agency Scoring

Each agency is scored separately by evaluating the agency’s performance in relation to its own goals and objectives. The goals listed above were directly provided by Collier County and the City of Naples, respectively. In addition, each agency was asked to provide a weight that corresponded to the importance of that goal. The scoring matrices below directly correspond to the goals and weights provided. Option 1 is looking at stand-alone separate operations, which is representative of current operations in their own facilities. Option 2 is looking at the potential co-location scenario and how the agency’s performance would change in relation to the same goals and objectives evaluated for Option 1.

5.2.2.1 Collier County Scoring Matrix

Collier County Scoring Matrix					
Goal #	Weight (%)	Option 1 - Separate	Option 1 Weighted	Option 2 - Co-locate	Option 2 Weighted
1	45	3	135	4	180
2	20	3	60	4	80
3	20	3	60	3	60
4	10	2	20	2	20
5	5	3	15	3	15
		Total Option 1	290	Total Option 2	355

Scoring for Collier County was determined based on current operations, technology, and interconnectivity. Key changes between Option 1 and Option 2 are the regional resources and ability to coordinate with the City quickly when an incident occurs along a corridor that affects both the County and City. Being co-located would provide a better-coordinated response to incidents. Therefore, the first two goals would score higher for Option 2. The other three goals would not change with the co-location since they are Collier County specific. However, Goal 4 could potentially increase in the future if they could leverage contracts together for newer technology. After looking at the overall scoring matrix, it is determined that Option 2, co-location of Collier County and City of Naples, would benefit the County and their overall objectives.

5.2.2.2 City of Naples Scoring Matrix

City of Naples Scoring Matrix					
Goal #	Weight (%)	Option 1 - Separate	Option 1 Weighted	Option 2 - Co-locate	Option 2 Weighted
1	70	3	210	4	280
2	20	4	80	3	60
3	10	3	30	4	40
		Total Option 1	320	Total Option 2	380

Scoring for the City of Naples was determined using the same scoring criteria above. The City provided the top three goals and placed heavy weight on the first goal. The key increases in scoring from Option 1 to Option 2 correlated to goals 1 and 3, having to do with coordination and interconnectivity. Both goals would be better met with faster and better information sharing of data as well as coordination at jurisdictional boundaries. As for goal number 2, we did score Option 2 slightly lower than Option 1 due to the ability to respond to incidents at the highest level of response. It was indicated during the stakeholder meetings that incident response could slightly decrease due to the proximity of technicians to the warehouse or signal shop. While the intent is to not move the technicians to the co-located TMC location, a slight delay might still be experienced from having to relay the incident to the technicians. This may not be completely accurate, but in this study, we did want to show Goal 2 slightly lower to capture this. However, it is believed that the dispatching would not actually create a delay and this option could still be scored as a 4. After looking at the overall scoring matrix in relation to the City’s goals and objectives, Option 2, co-location of the TMCs is expected to benefit the City and their overall objectives.

6 Final Professional Recommendation

6.1 Overall Recommendation

After looking at the scoring for each agency in relation to its own goals and objectives and looking at the potential cost savings by leveraging resources, co-locating the City of Naples and Collier County TMCs is recommended. Co-location would provide the motorists in that region a seamless transportation network with reliable incident response. Each agency would still be able to successfully meet their own goals and objectives, with the potential to exceed current performance due to quicker coordination efforts between agencies.

6.2 Project Constraints and Possible Mitigation

Now that we have analyzed the feasibility of co-locating the Collier County and City of Naples TMCs in terms of operations, next steps are to identify project constraints and possible mitigation. The first constraint will be deciding on a location for the co-located TMC. The TMC needs to be within a reasonable distance to the existing TMCs as to not add additional burden or hardship to personnel that would now work at the new TMC on a regular basis. Early coordination with both agencies would help mitigate this constraint.

The second constraint would be identification of institutional barriers. Both agencies were asked, during the stakeholder coordination meetings, if they saw any institutional barriers that would be impossible to overcome. Collier County voiced that the City of Naples has unionized employees and was not sure how that would or would not affect the operations if they were co-located. After discussions with the City of Naples regarding this matter, it was discovered that only four employees within their Traffic Operations were union members. Since the City has both union and non-union members within the same division, they did not believe that this would affect the co-located TMC since it has not posed as an issue for them.

Lastly, creating the MOU and MOA to better understand the different roles and responsibilities of all parties will be vital. This will take the most coordination and requires buy-in from both agencies. To mitigate any delay, starting the conversations early for these memorandums will be critical.

Appendix A – Performance Measure Dashboards

Appendix B – Meeting Minutes

EXECUTIVE SUMMARY

Review of Draft Fiscal Year 2018/19-2019/20 Unified Planning Work Program

OBJECTIVE: To review and comment on the draft Fiscal Year (FY) 2018/19 - 2019/20 Unified Planning Work Program (UPWP).

CONSIDERATIONS: The MPO is required to develop and submit to Federal Highway Administration (FHWA) a two-year Unified Planning Work Program (UPWP) which serves as the resource and budgeting document for the MPO for the coming fiscal years beginning July 1st, 2018. FDOT requires submittal of draft UPWPs by March 15th for the purposes of agency review and comments, and a final document by May 15th. In order to meet the FDOT deadlines and the MPO meeting schedule, it is necessary for the Board to review the draft in March and approve the final UPWP at the May meeting.

MPO staff has transmitted the draft to FDOT/FHWA for comments and anticipates receiving them back by April 2nd. In addition, the draft UPWP will be available for public review from April 19th through May 10th.

COMMITTEE RECOMMENDATIONS: The TAC and CAC reviewed the draft UPWP and provided minor comments. All comments received will be addressed in the final UPWP that will be presented to the MPO Board in May.

STAFF RECOMMENDATIONS: That the Board review and comment on the draft 2018/19-2019/20 UPWP.

Prepared By: Brandy Otero, Senior Planner

ATTACHMENT(S)

1. Draft FY 2018/19-2019/20 UPWP (PDF)

03/09/2018

**COLLIER COUNTY
Metropolitan Planning Organization**

Item Number: 11.B**Doc ID:** 4983**Item Summary:** Review of Draft Fiscal Year 2018/19-2019/20 Unified Planning Work Program**Meeting Date:** 03/09/2018**Prepared by:**

Title: Planner, Senior – Metropolitan Planning Organization

Name: Brandy Otero

03/01/2018 9:29 AM

Submitted by:

Title: Executive Director - MPO – Metropolitan Planning Organization

Name: Anne McLaughlin

03/01/2018 9:29 AM

Approved By:**Review:**

Metropolitan Planning Organization	Brandy Otero	MPO Analyst Review	Completed	03/01/2018 9:29 AM
Metropolitan Planning Organization	Anne McLaughlin	MPO Executive Director Review	Completed	03/01/2018 10:22 AM
Metropolitan Planning Organization	Anne McLaughlin	Meeting Pending		03/09/2018 9:00 AM

COLLIER
METROPOLITAN PLANNING ORGANIZATION
 Bonita Springs (Naples), FL UZA

FISCAL YEARS (FY) 2018/19-2019/20
UNIFIED PLANNING WORK PROGRAM

This document was approved and adopted by the
 Collier Metropolitan Planning Organization on

Approved and Adopted May 11, 2018

Commissioner William L. McDaniel, Jr.
 MPO Chair

Prepared by:
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Attachment: Draft FY 2018/19-2019/20 UPWP (4983 : Review of Draft Fiscal Year 2018/19-2019/20 Unified Planning Work Program)



APPENDICES

Appendix A – FY 2018/19-2019/20 Federal Planning Factors and FDOT’s Planning Emphasis Areas

Appendix B – FTA Grant Application

Appendix C – Response to Comments – FHWA

Appendix D – Response to Comments – FDOT

Appendix E – Response to Comments – Board and Advisory Committee Members

Appendix F – Response to Comments – Public

Appendix G – Planning Studies in the MPO Area

Appendix H – Joint Certification and Statements & Assurances

COMMONLY USED ACRONYMS

Acronym	Full Name
AADT	Annual Average Daily Traffic
ADA	Americans with Disability Act
AMPO	Association of Metropolitan Planning Organizations
ARRA	American Recovery and Reinvestment Act
AASHTO	American Association of State Highway and Transportation Officials
AUIR	Annual Update and Inventory Report
BCC	Board of County Commissioners
BPAC	Bicycle & Pedestrian Advisory Committee
CAC	Citizens Advisory Committee
CAT	Collier Area Transit
CEMP	County Emergency Management Plan
CFR	Code of Federal Regulations
CIA	Community Impact Assessment
CIE	Capital Improvement Element
CIGM	Collier Inter-Active Growth Model
CIP	Capital Improvement Program
CMC	Congestion Management Committee
CMP	Congestion Management Process
CMS	Congestion Management System
COA	Comprehensive Operational Analysis
COOP	Continuity of Operations Plan
CORSIM	Corridor Simulation
CR	County Road
CRA	Community Redevelopment Agency
CTC	Community Transportation Coordinator
CTD	(Florida) Commission for the Transportation Disadvantaged
CTST	Community Traffic Safety Team
CUTR	Center for Urban Transportation Research
CUTS	Coordinated Urban Transportation Studies
DBE	Disadvantaged Business Enterprise
DOPA	Designated Official Planning Agency
DRI	Development of Regional Impact
EAR	Evaluation and Appraisal Report
EMS	Emergency Medical Services
ETAT	Environmental Technical Advisory Team
ETDM	Efficient Transportation Decision Making
F.A.C.	Florida Administrative Code
FAP	Federal Aid Program
FAST	Fixing America's Surface Transportation
FDOT	Florida Department of Transportation
FHREDI	Florida's Heartland Rural Economic Development Initiative

COMMONLY USED ACRONYMS

Acronym	Full Name
FHWA	Federal Highway Administration
FM	Financial Management
FS	Florida Statutes
FSUTMS	Florida Standard Urban Transportation Model Structure
FTA	Florida Transit Administration
FTP	Florida Transportation Plan
FY	Fiscal Year
GIS	Geographical Information System
ICAR	Intergovernmental Coordination and Review
ICE	Intergovernmental Coordination Element
IJR	Interchange Justification Report
IT	Information Technology
ITS	Intelligent Transportation Systems
JARC	Job Access Reverse Commute
JPA	Joint Participation Agreement
LAP	Local Agency Program
LCB	Local Coordinating Board for the Transportation Disadvantaged
LEP	Limited English Proficiency
LinC	Lee in Collier Transit Service
LOS	Level of Service
LRTP	Long Range Transportation Plan
MAP-21	Moving Ahead for Progress in the 21st Century
MMP	Master Mobility Plan
MMTPP	Metropolitan Multimodal Transportation Planning Process
MPO	Metropolitan Planning Organization (includes references to the organization, MPO Board, Staff and Committees)
MPOAC	Metropolitan Planning Organization Advisory Council
MPP	Metropolitan Planning Program
NTD	National Transit Database
PD&E	Project Development & Environment
PEA	Planning Emphasis Area
PIP	Public Involvement Plan
PL	Highway Planning Funds
PTNE	Public Transit and Neighborhood Enhancement
PTOP	Public Transportation Operation Plan
QRC	Quick Response Code
RFP	Request for Proposal
ROW	Right-of-Way
SHS	State Highway System
SIS	Strategic Intermodal System
SR	State Road

COMMONLY USED ACRONYMS

Acronym	Full Name
SSPP	System Safety Program Plan
SWFRPC	Southwest Florida Regional Planning Council
TAC	Technical Advisory Committee
TAZ	Traffic Analysis Zone
TD	Transportation Disadvantaged
TDM	Transportation Demand Management
TDP	Transit Development Plan
TDSP	Transportation Disadvantaged Service Plan
TIP	Transportation Improvement Program
TMA	Transportation Management Area
TSM	Transportation Systems Management
TRIP	Transportation Regional Incentive Program
ULAM	Urban Land Allocation Model
UPWP	Unified Planning Work Program
USC	United States Code
USDOT	United States Department of Transportation
VE	Value Engineering
ZDATA	Zonal Data (land use and socio-economic)

COST ANALYSIS CERTIFICATION

COST ANALYSIS CERTIFICATION AS REQUIRED BY SECTION 216.3475, FLORIDA STATUTES:

I certify that the cost for each line item budget category has been evaluated and determined to be allowable, reasonable, and necessary as required by Section 216.3475, F.S. Documentation is on file evidencing the methodology used and the conclusions reached.

District MPO Liaison Victoria Peters

Date

INTRODUCTION

The Unified Planning Work Program (UPWP) for the Collier Metropolitan Planning Area documents transportation planning and transportation planning related activities for FY 2018/19-2019/20. The objective of this work program is to ensure that a continuing, cooperative and comprehensive approach to planning for transportation needs is maintained and properly coordinated with other jurisdictions and MPOs, the Southwest Florida Regional Planning Council (SWFRPC) and the Florida Department of Transportation (FDOT).

Comments received from FHWA, FTA, and FDOT have been addressed and incorporated into the final document. A draft of this UPWP was presented for final endorsement to the Citizens and Technical Advisory Committees on **April 30, 2018** and received final approval by the Collier MPO Board on **May 11, 2018**.

This document is intended to inform all public officials and agencies that contribute effort and allocated funds to the multimodal transportation planning process about the nature of the tasks identified in the UPWP. It is also intended to assign specific responsibilities for the various tasks to the participating agencies in accordance with the Interlocal Agreement creating the Metropolitan Planning Organization. In addition, the UPWP provides the basis for Federal funding of the transportation planning activities to be undertaken with Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) funds.

MPO planning principles, procedures and technical issues in the UPWP are intended to be an integral part of the planning process and bring about improved decision making in transportation project selection, development, design, mitigation and construction. The level of effort in this UPWP is largely based on state and federal requirements, joint efforts with planning partners that support the transportation planning process, and the cycle of updates to the Long Range Transportation Plan.

Moving Ahead for Progress in the 21st Century (MAP-21) maintains the federal planning factors that were included in the *Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users* (SAFETEA-LU). In addition, the new transportation authorization bill, *Fixing America's Surface Transportation* (FAST) added two planning factors. The following ten federal planning factors have been incorporated into the MPO Planning Process and this UPWP:

1. Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency;
2. Increase the safety of the transportation system for motorized and non-motorized users;
3. Increase the security of the transportation system for motorized and non-motorized users;
4. Increase the accessibility and mobility of people and for freight;
5. Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns;
6. Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight;
7. Promote efficient system management and operation;
8. Improve the resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts of surface transportation;

INTRODUCTION (cont.)

9. Enhance travel and tourism; and,
10. Emphasize the preservation of the existing transportation system

In addition to the planning factors noted above, MAP-21 required that State DOTs and MPOs conduct performance-based planning by tracking performance measures and setting data-driven targets to improve those measures. Performance-based planning ensures the most efficient investment of federal transportation funds by increasing accountability, transparency, and providing for better investment decisions that focus on key outcomes related to seven national goals which include:

- Improving Safety;
- Maintaining Infrastructure Condition;
- Reducing Traffic Congestion;
- Improving the Efficiency of the System and Freight Movement;
- Protecting the Environment; and,
- Reducing Delays in Project Delivery.

The FAST Act supplements the MAP-21 legislation by establishing timelines for State DOTs and MPOs to comply with the requirements of MAP-21. State DOTs are required to establish statewide targets and MPOs have the option to support the statewide targets or adopt their own. The transition to performance based planning is being addressed within the tasks identified in this UPWP. The Collier MPO intends to coordinate with FDOT and member agencies to fully comply with the performance based planning requirements.

The MPO performs a variety of tasks utilizing funds under Titles 23 and 49 of the Federal Transit Act. Those tasks include annual development of the Transportation Improvement Program (TIP); continually improving the Congestion Management System; regular updates to the Transit Development Plan (TDP) and Transportation Disadvantaged Service Plan (TDSP); assisting Collier County in its role as Transportation Disadvantaged Community Transportation Coordinator (CTC); support of Bicycle and Pedestrian Planning activities; preparation of updates to the Long Range Transportation Plan; periodically updating the Public Involvement Plan (PIP), expanding public outreach activities and implementing strategies to address environmental justice issues; and supporting FDOT District One and Collier County planning activities with emphasis on improving traffic modeling and Geographic Information Systems (GIS) capabilities.

Section 120 of Title 23, U.S.C, permits a state to use certain toll revenue expenditures as a credit toward the non-federal matching share of all programs authorized by Title 23, (with the exception of Emergency Relief Programs) and for transit programs authorized by Chapter 53 of Title 49, U.S.C. This is in essence a “soft-match” provision that allows the federal share to be increased up to 100% to the extent credits are available. The “soft-match” amount being utilized to match the FHWA funding in this UPWP is 18.07% of FHWA program funds for a total of \$267,078.

STATUS OF TRANSPORTATION PLANNING ACTIVITIES

Collier County is located along Southwest Florida's tropical Gulf Coast. Collier County has a well defined network of state and local roadways and is continuing to grow and develop to meet the changing demands of the community. The figure below shows the population and land area distribution of the Jurisdictions within Collier County.

Figure 1
Population and Land Area Summary and Distribution (2000, 2010, 2017)

Jurisdiction	Land Area of Jurisdictions in Square Miles		2000 Population		2010 Census Population		2017 Population Estimate		Population Density
Collier County	1999.005	98.72%	215,043	85.55%	285,170	88.69%	319,796	89.46%	159.98
City of Naples	15.42	0.76%	20,976	8.34%	19,537	6.08%	20,195	5.65%	1309.66
City of Marco Island	9.375	0.46%	14,879	5.92%	16,413	5.10%	17,036	4.77%	1817.17
Everglades City	1.2	0.06%	479	0.19%	400	0.12%	443	0.12%	369.17
Total	2025	100%	251,377	100%	321,520	100%	357,470	100%	176.53

Source: 2010 Census and BEBR Projections

The most populous city in the county is Naples with an estimated 2017 population of 20,195. The City of Marco Island is the second largest in Collier County, with an estimated population of 17,036. The population of the county's unincorporated area is quite large as compared to the cities, with about 306,276 residents. During the time period of 2010 to 2017, Collier County saw its population increase from 321,520 to 357,470, approximately a 11% increase. Much of Collier County's current growth is occurring in Golden Gate Estates, one of the largest platted subdivisions of its kind in the world. Since this single-family residential subdivision was developed prior to Florida's growth management laws, building permits in Golden Gate Estates are not subject to the same concurrency regulations as new development, thus, Collier County cannot deny residential building permits due to the lack of transportation capacity. In addition to the growth in the number of permanent residents, Collier County has a high seasonal influx, with a projected peak season population of approximately 20% over full-time residents.

At 2,025 square miles, Collier County consists of a very large area. The unincorporated community of Immokalee is located 41 miles northeast of Naples and the City of Everglades City is located 36 miles southeast of Naples. Much of the eastern part of Collier County is in public ownership, including Everglades National Park, Big Cypress Preserve, Picayune Strand and Fakahatchee Strand State Preserves, Collier-Seminole State Park, Rookery Bay National Estuarine Research Reserve, Florida Panther Wildlife Refuge and Corkscrew Swamp Sanctuary. These areas represent 80% of the land in Collier County and cannot be developed.

Over the ten year period of 2000-2010, Collier County grew at a rate much higher than that of the State of Florida, seeing a 30% increase in population. The population density that exists in Collier County, however, is much less than the overall State population density, with approximately 159 persons per square mile versus 353 persons per square mile in the State of Florida. This reflects the large undeveloped area of the county and a small urban core.

STATUS OF TRANSPORTATION PLANNING ACTIVITIES (cont.)

The percent of households with incomes in the categories under \$50,000 are lower than the percentages for the State of Florida. On the other hand, Collier County is higher than the State of Florida in the category over \$75,000. According to 2012-2016 American Community Survey 5-year estimates, the median household income for the State of Florida is \$48,900. Collier County has a significantly higher median household income of \$59,783.

It is important to note that while the county as a whole is predominantly more affluent than that for the State of Florida, there are anomalies that exist. The Immokalee area falls within a statewide area of critical

economic concern and has been designated as a “rural enterprise zone” with higher than average unemployment, children living in poverty, and families who fall under the federal poverty thresholds. Transportation to employment, job training, and critical health and social services available in the western portions of the county must continue to be available to residents of Immokalee area.

According to the 2012-2016 American Community Survey 5-year estimate, approximately 5.4% of the households in Collier County have no access to a vehicle which is slightly less than the 6.9% of Floridians that live in households with no vehicle availability.

The conditions described above highlight the challenges that impact transportation, including rapid growth, high seasonal population, the development of gated communities (lack of effective local/collector street network and lack of connectivity), the low population density of the county, and access and reliance on automobiles. The planning activities described below are intended to address these issues at the local and regional levels and are performed with funds under Title 23 and 49 of the Federal Transit Act.

FY 2018/19 and FY 2019/20 MPO Staff's Transportation Planning Priorities

The major focus for the upcoming fiscal years of 2018/19 and 2019/20 will be the Long Range Transportation Plan and the transition to performance based planning. In addition, a Transportation System Performance Report will be prepared to provide a thorough system assessment to identify where priority investments should be made. All of the studies will include public involvement and outreach to the community. The MPO staff will continue to develop demographic analysis and travel behavior of Collier County to assist with MPO and jurisdictional agency efforts. In addition, the MPO staff will continue to coordinate and assist the Collier County Public Transit and Neighborhood Enhancement Division with the development of the Transit Development Plans (TDP), including a major update over the next two fiscal years, and Transportation Disadvantaged Service Plans (TDSP) and any other transit enhancement plans jointly agreed to.

Regional Transportation Planning Activities

The Lee County and Collier MPOs meet annually to discuss regional issues and projects which may have a joint impact on the area. The MPOs will continue to work together to endorse and adopt regional priorities for enhancements, TRIP, highway and transit projects.

STATUS OF TRANSPORTATION PLANNING ACTIVITIES (cont.)

FDOT Five Year Work Program

The MPO annually recommends priority lists for roadway capacity improvements, congestion management, enhancement, and transit projects to FDOT which then incorporates these recommended priorities, to the maximum extent feasible, into their Tentative Five Year Work Program. The Adopted FDOT Work Program and the Capital Improvement Programs (CIP) of Collier County, the City of Naples, the City of Marco Island, and the City of Everglades City are combined to form a single multimodal Transportation Improvement Program (TIP).

Congestion Management System (CMS)

An operational CMS was originally adopted in 1997 and was updated in 2006. The CMS was developed to reduce congestion, not by adding travel lanes to existing highways, but by such initiatives as improving traffic signal timing, improving intersections (adding/lengthening turn lanes, etc.), and modifying medians. In 2008, the MPO updated the CMS and renamed it the Congestion Management Process (CMP). The CMP was updated again in 2017. The latest update brought the document current with the 2040 LRTP and with new federal legislation which requires performance-based and data driven planning. The update recognized the need for a more extensive data analysis. This led to the recommendation to fund a biennial Transportation System Performance Report, which is intended to identify projects and priorities going forward. The updated CMP adopted performance measures and required project sponsors to establish baseline measures and report on the results to the Congestion Management Committee and the MPO Board.

Public Transportation

In January 2001, the Collier County Board of County Commissioners (BCC) began the Collier Area Transit (CAT) System. CAT is funded through a variety of sources including FTA Section 5307, various state grants, fare box, and local revenues. In February 2016, CAT celebrated 15 years of services, another historic milestone! Since the service inception, CAT has expanded its services to 19 fixed routes and transported an estimate of 1 million residents and visitors annually.

Lee and Collier Counties established a regional transit connection called the LinC (Lee in Collier) route in October 2011. The LinC service has exceeded ridership expectations. The route was made possible by funds from Lee County, FDOT, and through coordinated efforts by the City of Bonita Springs, CAT, Collier County and the Collier MPO.

A major Transit Development Plan (TDP) update was completed in August 2015. The Public Transit and Neighborhood Enhancement (PTNE) Department in coordination with the Collier MPO is expected to complete Annual Progress Reports to the TDP in-house. The next Major TDP update will be completed by a consultant with coordination with PTNE and the MPO and is anticipated to be completed in September 2020.

Transportation Disadvantaged Community Transportation Coordinator (CTC)

Under the direction of Collier County CTC, the transit service is managed by two new vendors, MTM manages the scheduling and dispatch services and MV Transportation manages the fixed route and paratransit services. The County's paratransit program includes Americans with Disabilities Act (ADA) and Transportation Disadvantaged services funded by the State's Transportation Disadvantaged (TD) Program. Collier County acts as the Community Transportation Coordinator (CTC). As the Designated

STATUS OF TRANSPORTATION PLANNING ACTIVITIES (cont.)

Official Planning Agency (DOPA) for the TD program, Collier MPO staff continues to coordinate the TD planning efforts by providing support to the Local Coordinating Board (LCB) and monitoring the CTC activities to ensure the availability of efficient, cost effective and quality transportation services for the transportation disadvantaged.

Services under the Medicaid Program are provided by MTM. It is noted that while MTM coordinates with PTNE/CAT and the MPO, neither entity is required to monitor or evaluate the services they provide.

CAT's paratransit system and the Immokalee Circulator route are funded through various state grants, fare box, and local revenues including FTA's Section 5311 program for rural public transportation.

The Collier MPO completed the Transportation Disadvantaged Service Plan (TDSP) major update in house. The TDSP was approved in October 2013. The Collier MPO has been completing the annual TDSP Minor Updates in house. The MPO continues to assist CAT with research, budget, funding discussions and presentations, regarding the current paratransit service and the existing fare structure.

Bicycle and Pedestrian Planning

Collier County continues to improve conditions for bicycling and walking through the efforts of the Technical Advisory Committee (TAC), Bicycle & Pedestrian Advisory Committee (BPAC) and MPO Board. The TAC and BPAC collectively make annual recommendations to the Board for bicycle and pedestrian projects using local, state and federal funds, and based on policies and projects identified in the Bicycle & Pedestrian Master Plan. The MPO coordinates with the Community Traffic Safety Team (CTST) on educational efforts such as the annual "Walk to School Day". In 2018, the MPO updated and made available the Bicycle and Pedestrian Facilities Map. In 2012, the MPO completed a Major Update to the Comprehensive Pathways Plan. In 2017, the MPO began work on a new (as opposed to revised) Bicycle & Pedestrian Master Plan (which included changing its name from the Comprehensive Pathways Plan). The Bicycle and Pedestrian Master Plan will be completed by September 30, 2018. In addition, the MPO will finish the series of Walkable Communities Studies when it completes the Golden Gate Walkable Community Study in 2018. The Collier MPO also maintains a countywide database of bicycle and pedestrian facilities.

Long Range Transportation Plan

The Long Range Transportation Plan (LRTP) is a critical tool in the MPO process. It is composed of a Needs Assessment, a Cost Feasible Plan, and several multi-modal transportation components. It is the primary document in which multi-modal components (such as pathways, transit and other projects), land use data and projected revenues are integrated in the long range planning process.

The 2040 LRTP was adopted in December 2015. Two amendments to the plan were completed and a third is underway. The 2045 LRTP will be developed over the next three fiscal years, with adoption expected in December 2020. The development of the 2045 LRTP will include coordination with member agencies and the Florida Department of Transportation. It will include public involvement, financial revenue projections, travel demand model validation, coordination and development of Needs Plan projects, project cost

STATUS OF TRANSPORTATION PLANNING ACTIVITIES (cont.)

estimates, a cost feasible plan, operations and maintenance costs, and a review of other plans and programs resulting in a multi-modal, long-range blueprint for the community's policy makers.

During the development of the 2045 LRTP, the MPO will continue to review projects and plans for consistency with the 2040 LRTP and will amend/update the plan as necessary.

The MPO will continue to review projects and plans for consistency with the 2040 LRTP and will amend/update the plan as necessary.

Information Management/Public Involvement

In order to reach a wider audience, the MPO public information/involvement efforts continue to include the use of newsletters, a stand-alone MPO website, and televised MPO Board meetings. Staff also continues to participate in public outreach efforts by attending community and special interest group meetings, as well as by conducting public workshops.

The MPO conducts public comment periods on major document and continues to provide pre-paid postage on all public comment forms. This allows the public to mail comments to the MPO without having to provide postage. Comments may also be submitted electronically. The MPO also translates public meeting flyers and applicable surveys to Spanish and Creole in order to meet the needs of the population.

Extensive public involvement efforts have been conducted for the update to the Bicycle & Pedestrian Master Plan (BPMP) and the Golden Gate City Walkable Community study. Public meetings were held in multiple areas throughout the County. In order to facilitate public comment for the BPMP the MPO, along with consultants, developed a survey that could be taken on paper or online as well as an interactive map where the public could electronically comment directly on the map.

The MPO maintains a stand-alone MPO website on a continual basis. The website is visual, easily accessible, and has searchable categories to find documents easier. The website includes translation capabilities which allow a user to translate pages on the website into 71 languages. In addition, a project directory allows users to view information and before and after pictures of projects programmed in the county. The MPO is currently working on a full redesign and update to the website that will make it user friendly.

MPO staff continue to use quick response codes (QRC) on all documents and public comment forms. The QRC allows anyone who has a smart phone to scan a document's barcode and access the MPO's link to that document. This effort promotes technology and allows a user to simply scan a document instead of taking a hard copy from the display. This is a cost saving and environmentally friendly effort.

MPO staff has begun public outreach efforts through our partners' social media site. Though the Collier MPO does not currently have a stand-alone social media site, we have partnered with Collier County Government to create events and status' on their page. This allows the MPO to reach a broader cross section of the public.

STATUS OF TRANSPORTATION PLANNING ACTIVITIES (cont.)

The MPO is also working on an update to the Public Involvement Plan (PIP) which will facilitate ease of public comment. The new PIP will also outline new goals and objectives that the MPO will continue working on in order to create an atmosphere that welcomes public involvement in many different forms.

MPO staff will continue to seek methods of generating public interest and participation on the MPO's standing advisory committees, and ensure all vacancies are filled. The MPO will continuously review their public involvement efforts and evaluate their success. This will allow us to change course of action when necessary and decipher what works best for the area.

Title VI and Environmental Justice

Staff will work on refining an in-house draft of a new PIP incorporating an updated Title VI Complaint Procedure and Policy and current Best Practices in conducting public outreach. Staff anticipates bringing the new draft to the MPO CAC and TAC for review in late summer, early fall 2018.

A preliminary identification of Environmental Justice Communities was conducted in 2016 and will be further refined as part of the Existing Conditions analysis for the Bicycle and Pedestrian Master Plan. Staff will continue to update EJ Community profiles on an as-needed basis for incorporation in future plans and studies.

Florida Department of Transportation District One Planning Activities

Florida Department of Transportation- District One District Wide Planning activities for FY18/19- FY19/20) include the following:

- GIS Application Development and System Maintenance
- Systems Planning and Reviews
- Interchange Reviews
- Travel Demand Model Development
- ETDM/Community Impact Assessment
- Statistics
- Federal Functional Classification
- Traffic Counts Program
- Modal Development Technical Support
- Enhancement Program Development
- Commuter Services
- State Highway System Corridor Studies
- Complete Streets Studies
- Growth Management Impact Reviews

STATUS OF TRANSPORTATION PLANNING ACTIVITIES (Cont.)

Collier County Planning Activities

The Transportation Planning section completes reviews, provides planning and programming of County and State transportation facilities and administers the Neighborhood Traffic Management Program (NTMP) in Collier County. In FY 2017/18, the section has secured additional funding from FDOT and the Collier MPO for new sidewalks and bike lanes in much needed areas of Collier County including the design and construction of bike path and trail along County Barn Road from Rattlesnake Hammock to SR 84 (Davis Blvd.), a sidewalk along Vanderbilt Dr. from Vanderbilt Beach Rd. to 109th Ave. N., a bike lane and sidewalk along Green Blvd. from Santa Barbara Blvd. to Sunshine Blvd. and a Safe Routes To School project at Eden Park Elementary School. The Transportation Planning section also secured funding for roadway projects including the design of a road widening project along Airport-Pulling Road from Vanderbilt Beach Road to Immokalee Road and assisted the Collier MPO by justifying the need for the advancement of both the SR29 from SR82 to the Hendry County Line and SR82 from the Hendry County Line to Gator Slough Lane projects.

Transportation Planning has completed: reviews of multiple miles of developer designed roadways; the Developer Sponsor Road Project Permitting Process guidance, which will help facilitate the review process and expedite the project development schedule; and the Annual Update and Inventory Report (AUIR) that determines existing Level of Service on over 140 road segments throughout Collier County and provides the means to project forward and analyze the potential traffic on these road segments. This provided the information necessary to determine when and if those segments are projected to fail between 2018 and 2027.

The Planned Unit Development (PUD) Monitoring section that maintains an accessible information tracking system for nearly 400 PUD's and ensures all commitments agreed to in a PUD are monitoring for compliance on a yearly basis.

City of Naples Planning Activities

The City of Naples is a residential community with an area of approximately 16 square miles with a local road system consisting of 108 miles of streets. The community is based on a town plat recorded in 1887 and development is at substantial build out. The community's transportation planning activities involve the following programs: 1) City Street Level of Service (LOS) monitoring; 2) Downtown redevelopment

and traffic circulation; 3) Use of an established traffic calming program to address city street issues; and 4) Implementation of master plans for intermodal facilities.

The four major planning activities are outlined as follows:

- The City maintains a quarterly traffic count program of State arterials, County arterials and City collector streets within its corporate limits. The quarterly count program produces average daily traffic data and peak hour traffic data; this data is monitored for compliance with the City's Growth Management Plan for LOS 'C'. The count data is placed on the City's website and updated

STATUS OF TRANSPORTATION PLANNING ACTIVITIES (Cont.)

quarterly. The traffic count program data provides both current and historic data for public review and analysis. In preparing an internal Annual Inventory and Update Report (AUIR), the City

provides an analysis of the traffic data. Historically, the City's LOS has been LOS 'C' or better with the notation that 5th Avenue South is a constrained facility and only a few streets require monitoring for the potential need of traffic circulation improvements.

- The City's 'D' downtown district [Note: the Naples Community Redevelopment Agency (CRA) includes the downtown district] has been subject of traffic modeling to reflect future redevelopment with mixed-use zoning. The on-going planning activities concurrent with redevelopment involve reconfiguring of City streets to create a more pedestrian friendly character that is more conducive to the existing mixed-use zoning. Within the 'D' district, the Naples CRA is processing amendments to reflect the need for improvements to serve future redevelopment to include considerations for improved connectivity and intermodal functions within the U.S.41 corridor. The City anticipates partnering with the Metropolitan Planning Organization (MPO), the Florida Department of Transportation (FDOT) and Collier County in planning for future connectivity improvements, particularly improvements that may potentially impact State and County roads.
- In 2013, the City completed and adopted the first comprehensive plan amendment for intermodal facilities (Note: the original pedestrian and bicycle plans were adopted in 2007). Both the 2007 and 2013 adopted plans include a pedestrian master plan and a bicycle master plan identifying community-wide intermodal improvements. Based on the priorities established in these plans, elements of pedestrian and bicycle improvements are on-going. Recent project improvements implemented by the City have been segments of 'missing sidewalk links' and new pavement striping that includes sharrows and bike lanes on select streets.

Additional projects have been subject of funding request to the MPO and the FDOT. Both these agencies have been supportive of improvements identified in the referenced comprehensive plans with the MPO adopting a number of City intermodal projects and the FDOT funding such projects in their 5-Year Work Plans. Future projects, endorsed by the MPO and funded by the FDOT include new sidewalks on segments of Gulf Shore Boulevard, 3rd Street North, 2nd Street South, and sidewalks in and around the St. Ann School.

- The City has a neighborhood traffic calming program based on planning and implementing changes to City streets to deter adverse traffic related problems. There are currently six areas/streets in the community subject of on-going analysis for improvements to counter traffic speeding, 'cut thru' traffic volumes and/or counter excessive truck traffic. These areas include Crayton Road, Park Shore Drive, Seagate Drive, South Golf Drive, Old Trail Drive, Eagle Oak Ridge and sections of Downtown. Due to the upcoming extension of 3rd Avenue South to Goodlette-Frank Road, the City is also focusing on traffic volumes and speed characteristics on 3rd Avenue South. The speed study will be used to establish existing speeds and volumes and compare them to post-extension speeds. By using the data from the study, the City will be able to determine whether traffic calming will be needed. The planning of improvements is typically followed by the budgeting, design and

STATUS OF TRANSPORTATION PLANNING ACTIVITIES (Cont.)

- construction of improvements that vary from entry islands, to roundabouts, to special pedestrian crossings and others.

City of Marco Island Planning Activities

In 2016 the City of Marco Island completed the total re-construction of the Smokehouse Bay Bridges, which replaced two obsolete structures that were built in 1969 and 1970. The new bridge structures were designed for a 50 year life span. In the future, the W. Winterberry Bridge will be replaced with a new single span FDOT rated bridge. This bridge replacement will bring all 15 bridges on the island up to current FDOT standards.

The City recently initiated an annual street resurfacing program to systematically resurface the entire 121 miles of street surfaces within the City limits. This program started with the City streets that were outside of the recently completed Sewer Replacement Program.

The City is currently continuing with an area wide Bicycle Pathway/ Bike Lane program which has been funded through the MPO and the FDOT. This year, the City completed a \$1,039,000 project that added over 4 miles of new shared use pathways to the current Master Planned Bike Ways. In the next 5 years, \$4.8 million of new bike lanes and shared use pathways are programmed to be constructed within the City. These projects will complete the Master Planned facilities identified in 2005 by the Ad-Hoc Bike Path Committee.

The final upgrade to the last traffic signal on the Island was completed this year. The signal at Bald Eagle Dr. and E. Elkcam Circle was the last signal to receive video detection and programming. With the completion of this upgrade, all ten signals on the island function through video detection and upgraded pedestrian controls.

City of Everglades City Planning Activities

The City of Everglades City was incorporated as a municipality in 1953. At the time of its incorporation it had been the county seat of Collier County since 1923. Following Hurricane Donna in September 1960, the county seat was moved to East Naples in 1962. The total land area of Everglades City is 768 acres, or approximately 1.2 square miles.

Existing development in Everglades City is located largely on compacted fill land; it consists primarily of residential housing supported by commercial and local government land uses. The Everglades AirPark, operated by the Collier County Airport Authority, and a National Park Service Visitor Center are located on public lands within the City and next to Chokoloskee Bay.

The single access road to and from Everglades City is County Road 29 (CR-29). It is a southern extension of State Road 29 (SR-29). The northern portion of SR-29 in Collier County is part of an emerging Strategic Intermodal System, or SIS, network that traverses rural Collier and Hendry counties from State Road 80 in the City of LaBelle south to its intersection with Interstate 75 (I-75). South of I-75, SR-29 continues to its intersection with US-41, Tamiami Trail, at Carnestown. South of US-41, it becomes County Road 29 (CR-29), extending south three miles to the municipal limits of Everglades City, and beyond to its southern terminus on Chokoloskee Island.

STATUS OF TRANSPORTATION PLANNING ACTIVITIES (Cont.)

Along its entire length, CR-29 is the only roadway access point to unincorporated Chokoloskee Island and another unincorporated community, Plantation Island, located east of the Lake Placid waterway. Persons living in these two island communities are not Everglades City residents.

As future conditions merit, the City, may pursue placing the improvement and resurfacing of the entire length of CR-29 on the Collier MPO list of Unfunded Roadway Priorities.

Some future planning activities include:

- Completing an accurate assessment of City Streets, intersections, and its bicycle/pedestrian pathways; and
- An ongoing assessment of the impact of the Everglades School, the AirPark, and Everglades National Park facilities on City streets, intersections, and bicycle/pedestrian pathways.

Among the Everglades City streets requiring special attention for needed storm water drainage improvements and pavement replacement are:

- CR-29 from the Barron River Bridge to the Chokoloskee Bay Causeway,
- Allen Avenue between Jasmine and Kumquat streets,
- Datura Street between Copeland Avenue North and School Drive,
- Evergreen Street between Copeland Avenue North and School Drive,
- Copeland Avenue North between Datura and Camellia streets, and
- School Drive at its intersection with North Storter Avenue.

Everglades City is relied on the contribution of Florida Department of Transportation District 1 and the Collier County Growth Management Division in completing construction of Street Lighting Improvements along Collier Avenue and Broadway from the Barron River Bridge to the City Hall traffic circle during Fiscal Year 2010/11. Despite the fact that Everglades City has no professional planning staff and a modest operating budget, the City continues to coordinate its transportation planning activities with the MPO.

Continuity of Operations Plan (COOP)

The Collier MPO operates under the rules and procedures of its own Continuity of Operations Plan (COOP). The development of the COOP was based on the Collier County Emergency Management Plan (CEMP) criteria and is updated by the MPO annually. The Collier MPO conducts an annual training exercise to ensure the COOP is updated. The last training session was held in August 2017. The COOP was utilized when Hurricane Irma struck on September 10, 2017.

UPWP FORMAT

The FY 2018/19-2019/20 UPWP covers the fiscal years starting July 1, 2018 and ending June 30, 2020. Since this is a two year UPWP the MPO will use the following designations for the task completion target dates included in the document: 1st Quarter = July – September 2018, 2nd Quarter = October – December 2019, 3rd Quarter = January – March 2019, 4th Quarter = April – June 2019, 5th Quarter = July – September 2019, 6th Quarter = October – December 2019, 7th Quarter = January – March 2020, 8th Quarter = April – June 2020.

FHWA Metropolitan Planning Program planning (MPP/PL) funds, FTA Section 5305 (d) Planning Funds, State Transportation Disadvantaged Trust Funds, FDOT Grant Funds, and local match participation provide financing for all the tasks contained within the UPWP. The Collier County Clerk of the Circuit Court performs an annual audit of the MPO program. The UPWP tasks to be undertaken during these fiscal years are organized into eight major subsets.

1. Administration

Administrative tasks provide for the primary management of MPO activities, including but not limited to, staff time to organize and conduct MPO Board and advisory committee meetings, public involvement efforts, and to participate in intergovernmental activities. In addition, this section includes all necessary expenditures to maintain operations, capital expenditures, Federal and State compliance documentation and all fiscally related tasks such as audits, progress reporting, maintenance of financial records, and the preparation of annual administrative reports, such as the UPWP, are also included.

2. Data Collection / Development

Task activities in this section includes those needed to monitor and analyze travel behavior and factors affecting travel, such as socio-economic, land use, environmental, air quality, safety, security and freight and transportation system data. Evaluation of the data collected in this section is used for both long and short range planning for the transportation system.

3. Transportation Improvement Program Maintenance and Development

This task annually provides for the development of the TIP, a five-year program of transportation improvements. The TIP will be developed in cooperation with FDOT and the local governments. Transportation projects will be drawn from the currently adopted MPO Long Range Transportation Plan to ensure the program's consistency relative to priorities and financial constraints. The prioritization methodology for each State and Federal funding project category will be detailed in the introduction of each pertinent section of the TIP. Regionally significant projects, regardless of funding source, are also included in the Transportation Improvement Program. The TIP also includes a list of multi-modal unfunded State, county and municipal projects that have been prioritized by the MPO Board.

Task activities in this section include establishing project priorities, annually updating the TIP and reviewing transportation plans and reports for use in many other UPWP sections and tasks, including short range planning, the Long Range Transportation Plan (LRTP), Transit Planning, and project planning.

UPWP FORMAT (cont.)

4. Long Range Planning

Updates and amendments to the LRTP include multi-modal aspects of transportation planning such as highway planning, transit planning, reviewing enhancement priorities, bicycle/pedestrian programming, and congestion monitoring of the Systems Planning area. This section is intended to work with the other sections of the UPWP in the development, review, amending and updating of the Long Range Transportation Plan.

5. Special Projects and Systems Planning

Bicycle and Pedestrian planning and support are conducted in order to provide a balanced transportation system to ensure that non-motorized travel options are safe, convenient and offer recreational opportunities. In addition, Congestion Management planning is also addressed in this task. As part of the Congestion Management Process, the first biennial Transportation System Performance Report will be completed.

6. Transit & Transportation Disadvantaged Planning

The UPWP addresses the continuing efforts of the Transit Program and Transportation Disadvantaged (TD) Program. Transit support is provided in order to develop the LRTP, TIP and other plans, programs and technical studies relating to public transportation. In addition, planning services are provided to ensure a coordinated Transportation Disadvantaged (TD) Program in Collier County.

7. Regional Coordination

This task provides for the creation of a region-wide multimodal transportation planning process in accordance with Federal and State guidelines to ensure the coordination of transportation planning and policy activities in FDOT District One. This includes travel expenditures, room rental, and any other necessary costs for regional planning.

8. Locally Funded Activities

This task allows staff to complete requests to prepare resolutions and policy position statements which are not eligible for grant reimbursement. In addition, travel expenses that are not eligible for grant reimbursement will be funded from this task.

UPWP EFFORT & CONSISTENCY

Level of Effort

The level of effort described in this UPWP includes the MPO staff, consultant services, FDOT support, and technical assistance from the various planning and engineering departments of Collier County, City of Naples, City of Everglades City and the City of Marco Island. It is anticipated that this support level will be sufficient to meet the “3-C’s” (continuing, comprehensive and cooperative) of the metropolitan transportation planning process throughout the Collier County Metropolitan Area.

Public Involvement

The UPWP has been developed in cooperation with FDOT, FHWA and FTA. The process began by holding a kick-off meeting with Collier County Public Transportation and Neighborhood Enhancement Division (PTNE) to discuss their transit planning needs. The UPWP was discussed at the CAC and TAC meetings and at the MPO Board.

The development of the UPWP has been subject to public review and comment and is consistent with the Collier MPO’s adopted Public Involvement Plan (PIP). The PIP is designed to educate and inform the public about transportation issues, and to provide the public with opportunities to contribute their ideas and opinions early and often throughout the planning process.

Local Government Comprehensive Plan Consistency

The UPWP has been developed to be consistent, to the maximum extent feasible, with the approved Growth Management Plans of the participating local governments and the Southwest Florida Strategic Regional Policy Plan.

**ORGANIZATION AND MANAGEMENT
OF THE
METROPOLITAN PLANNING ORGANIZATION**

The Collier MPO is the primary agency responsible for transportation planning in Collier County. The MPO Board consists of nine voting members, representing the county government and three local municipalities, and one non-voting representative from the FDOT. The MPO is a legislative body with the power to develop and adopt plans, and to set priorities for the programming of improvements to the transportation system. The MPO membership includes the following:

COLLIER COUNTY

Commissioner Donna Fiala, District 1
 Commissioner Andy Solis., District 2
 Commissioner Burt Saunders, District 3
 Commissioner Penny Taylor, District 4
 Commissioner William L. McDaniel, Jr., District 5

CITY OF NAPLES

Councilwoman Linda Penniman
 Councilman Reg Buxton

CITY OF MARCO ISLAND

Councilman Joe Batte

CITY OF EVERGLADES CITY

Councilwoman Elaine Middelstaedt

FLORIDA DEPARTMENT OF TRANSPORTATION

L.K. Nandam, District Secretary, District One

COLLIER COUNTY METROPOLITAN PLANNING ORGANIZATION STAFF

Anne McLaughlin, MPO Executive Director
 Eric Ortman, Senior Planner
 Brandy Otero, Senior Planner
 Gabrielle Gonzalez, Administrative Secretary
 Vacant, Planner

ADVISORY COMMITTEES

Technical Advisory Committee (TAC)

The MPO's TAC is composed of technically qualified representatives of agencies responsible for directing, developing and improving the transportation system within the Collier County Metropolitan Planning Area. Committee duties include the coordination of transportation planning and programming activities arising from the review of all transportation technical studies and reports submitted to them. The following is a list of the TAC membership:

- Andy Holland, City of Naples Planning, *Chair*
- Michelle Arnold, Collier County Public Transit & Neighborhood Enhancement, *Vice-Chair*
- Dan Hall, Collier County Transportation Engineering
- Don Scott, Lee County MPO
- Gregg Strakaluse, City of Naples Engineering
- Justin Lobb, Collier County Airport Authority
- Kerry Keith, City of Naples Airport Authority
- Lorraine Lantz, Collier County Transportation Planning
- Tim Pinter, City of Marco Island Planning
- Daniel James Smith, City of Marco Island Community Affairs
- David Ogilvie, Collier County Public Schools (non-voting)
- Nicole Gwinnett, SWFRPC (non-voting)
- Vacant, City of Everglades City
- Vacant, Local Environmental Agency Representative (non-voting)
- Vacant, Freight Representative (non-voting)

Citizens Advisory Committee (CAC)

The MPO's CAC is composed of individuals representing a cross-section of the geographic community and special interests, such as minorities and persons with disabilities. They are recruited to represent the City of Naples, the City of Marco Island, the City of Everglades City and the County Commission Districts of the unincorporated areas of the county. The CAC provides the MPO Board and staff with the citizen's perspective on the multimodal transportation planning process. The CAC is the focal point of the MPO's public involvement process. The following is a list of the CAC membership:

- Gary Shirk, At-Large, *Chair*
- Karen Homiak, District I, *Vice-Chair*
- Fred Thomas, District V
- Josh Rincon, Representing Minorities
- Rick Hart, Representing Persons with Disabilities
- Pam Brown, At-Large
- Wayne Sherman, District IV
- Russell Tuff, District III
- Robert Phelan, City of Marco Island
- Dr. Robert Jones, District II
- Vacant, Everglades City

ADVISORY COMMITTEES (cont.)

- Vacant, City of Naples
- Vacant, City of Naples

Bicycle & Pedestrian Advisory Committee (BPAC)

The MPO's BPAC is made up of citizens interested in the development and use of a bicycle and pedestrian pathways system in Collier County. The committee is responsible for assisting the MPO staff in the ongoing review and update of the Comprehensive Pathways Plan. The BPAC is also involved in the review of the system inventory and priorities for the future capital expenditures funds for pathway facilities. Following is a list of the BPAC membership (Eleven at-large members appointed by the MPO Board):

- Joe Bonness, *Chair*
- Joe Adams, *Vice-Chair*
- Alan Musico, *Vice-Chair*
- Dayna Fendrick, *Chair*
- Dr. Mort Friedman
- Jane Cheffy
- Victor Ordija
- Andrea Halman
- Ray Steadman
- Reginald Wilson
- *Vacant*

Congestion Management Committee (CMC)

The CMC serves the MPO in an advisory capacity on technical matters relating to the update of the MPO's Congestion Management System and the coordination of the CMS with the regional ITS architecture. The committee is responsible for creating and amending the Congestion Management Process (CMP) and for prioritizing candidate CMS projects to be funded from the MPO's CMS boxed funds. The following is a list of the CMC membership:

Voting Members

- Tony Khawaja, Collier County Traffic Operations, *Chair*
- Tim Pinter, City of Marco Island, *Vice-Chair*
- Karen Homiak, CAC Representative
- David Ogilvie, Collier County Public Schools
- Dan Summers, Collier County Emergency Management
- Ian Barnwell, Collier County Transportation Planning
- Dr. Mort Friedman, PAC Representative
- Omar Deleon, Collier County Public Transit & Neighborhood Enhancement

ADVISORY COMMITTEES (cont.)

- Dave Rivera, City of Naples
- Alison Bickett, City of Naples
- Vacant, City of Everglades City

Advisory Members

- Don Scott, Lee County MPO (Advisory)
- Fire Chief Orly Stolts, North Naples Fire District (Advisory)
- Sgt. Greg Sheridan, City of Naples Police Department (Advisory)
- Lt. Mike Dolan, Collier County Sheriff's Office (Advisory)
- Chief Rita Greenberg, Big Corkscrew Fire District (Advisory)
- Fire Chief Kingman Schuldt, Golden Gate Fire District (Advisory)
- Chief Walter Kopka, Collier County EMS (Advisory)
- Fire Chief Paul Anderson, Jr., Immokalee Fire District (Advisory)
- Chief Alan McLaughlin, Ochopee Fire Control (Advisory)
- Deputy Chief Nick Biondo, East Naples Fire District
- Chief Wayne Martin, Isles of Capri Fire District
- Wayne Watson, Collier County EMS
- Vacant, Florida Highway Patrol (Advisory)
- Vacant, City of Marco Island Police (Advisory)
- Vacant, Naples Fire Rescue Department

Local Coordinating Board for the Transportation Disadvantaged (LCB)

The LCB for the Transportation Disadvantaged (TD) has been appointed by the MPO to carry out the duties described in Rule 41-2, Florida Administrative Code, as an integral part of the TD planning and delivery service program.

The LCB is composed of representatives from various State and local agencies, as well as citizen representatives. A member of the MPO Board is appointed to serve as the LCB's Chairman. Following is a list of the LCB membership:

- Commissioner Donna Fiala - *Chair*
- Harold Kurzman, Elderly, *Vice-Chair*
- David Ogilvie, Public Education
- Dylan Vogel, Citizen/User
- Irene Johnson, Veteran Services
- Cheryl Burnham, Florida Association for Community Action
- John Starling, FDOT
- Rebecca MacKenzie, Area Agency on Aging
- Felix Soto, Florida Department of Children and Families
- Joe Martinez, Agency for Health Care Administration

ADVISORY COMMITTEES (cont.)

- Emely Kafle, Representative for Children at Risk
- Robert Richard, Florida Department of Education Division of Vocational Rehabilitation
- Sherry Brenner, Persons with Disabilities
- Susan Corris, Southwest Florida Workforce Development Board
- Vacant, Private Transportation Industry
- Vacant, Citizens Advocate/Non-User
- Vacant, Local Medical Community

AGREEMENTS AND PROCEDURES

Agreements

The MPO has various agreements in place with State and local governments and agencies that promote the “3-C” planning process. The following is a list of agreements currently in place:

- Amended and Restated Interlocal Agreement for the Creation of the Collier County MPO – FDOT, City of Naples, City of Marco Island, City of Everglades City, Collier County (2/26/15)
- Metropolitan Planning Organization Agreement – FDOT/MPO (7/1/16) – Agreement for planning funding.
- Staff Services Agreement – MPO/Collier County (6/28/16)
- Interlocal Agreement – Lee and Collier MPO regional coordination (amended 3/20/09)
- Intergovernmental Coordination and Review (ICAR) and Public Transportation Coordination Joint Participation Agreement – FDOT/MPO/Collier County Airport Authority, Naples Airport Authority/ Southwest Florida Regional Planning Council (11/25/14)
- Public Transportation Joint Participation Agreement – FDOT/MPO (11/10/15)

These agreements are currently under review and will be updated as appropriate.

Operational Procedures and Bylaws

The MPO operates under an adopted set of Bylaws. In 2015, the MPO Board selected Anne McLaughlin as the MPO Executive Director. The MPO Executive Director reports directly to the MPO Board. The additional MPO staff members are Collier County employees pursuant to a staff services agreement. Administrative services are provided by Collier County under the rules and procedures of Collier County and the State of Florida. Annual audits of the MPO Program are performed as part of the single audit process under the direction of the Clerk of Courts Finance Department.

Official records of MPO business are maintained in the MPO Offices located in the Collier County Growth Management Division, 2885 South Horseshoe Drive, Naples, Florida 34104. All of the MPO records are available for public inspection during normal business hours.

The Collier MPO’s operational procedures fully comply with the public records laws and the Sunshine Laws of the State of Florida.

**COLLIER
METROPOLITAN PLANNING ORGANIZATION
FY 2018/19-2019/20
UNIFIED PLANNING WORK PROGRAM (UPWP)**

Attachment: Draft FY 2018/19-2019/20 UPWP (4983 : Review of Draft Fiscal Year 2018/19-2019/20 Unified Planning Work Program)

TASK 1

ADMINISTRATION

ADMINISTRATION

PURPOSE:

To conduct activities (including staff travel and capital expenses) including the development and maintenance of administrative reports and grants contract administration. This task also includes all public involvement activities and administrative support for MPO planning and programs in general, including assistance to Federal, State and local agency staff, as needed. It provides for the administration of the area-wide multimodal transportation planning process in accordance with Federal and State requirements, and for the technical management over each project included in the UPWP.

PREVIOUS WORK:

- Staff Management
- UPWP development and Amendments
- Annual and Quadrennial MPO Certifications
- Quarterly Reports and Invoices
- Grant Applications, Contracts, Joint Participation Agreements, and Budget Submittals
- Audits as required
- Legal services for MPO
- Purchase, lease or rent for MPO staff offices, vehicle, facilities and equipment
- Copies
- COOP
- Published MPO newsletters
- Developed and maintained an interactive stand-alone Website
- Staff spoke before groups and organizations
- Staff issued press releases and legal ads
- Participated in interviews by local print and broadcast media
- Public Involvement activities
- Provided information to the public, consultants and other government agencies by mail, phone and e-mail.

REQUIRED ACTIVITIES:

- Manage in-house staff and consultants to accomplish all planning tasks.
- General administration and coordination of the MPO and MPO activities required to facilitate the UPWP and planning tasks per federal and state planning requirements.
- Maintain and update a General Planning Contract for planning tasks and issue purchase orders, work orders or necessary authorizations under contracts associated with the General Planning Contract or future planning contracts.
- Preparation of contracts, request for proposals and agreements between the MPO and participating agencies, including contracts with outside consultants.
- Technical assistance to local governments, public agencies, and other qualified grant sponsors regarding Federal and state grant applications or management issues.

- General facilitation, coordination and minute / record keeping of all MPO Board, advisory committee meetings, and any other public meetings or workshops. This includes legal ads and notices, scheduling the meetings, facility rentals, assembling and delivering the agendas / packets, transcribing the minutes, etc.
- Complete press releases, legal ads, advertisements, fliers, notices, etc. for meetings, transportation plans and MPO related activities.
- MPO Board, committee members and staff to participate in transportation workshops, conferences, meetings and coordination activities to provide staff, board, and committee members training and education, about the MPO and to enhance knowledge in any UPWP task, maintain technical expertise, promote sound transportation planning, and stay abreast of emerging issues. This includes purchase of any necessary resource and training materials. Travel may be required for these activities.
- Participate in any air quality compliance training and related air quality regulations (as necessary).
- Soliciting applications for vacancies on advisory committees, as needed.
- Updating of MPO and advisory committee bylaws, as needed.
- Contracting with outside legal counsel as necessary for contracts, agreements, and procedural assessments.
- Contractual lease or rent for MPO staff offices, facilities, vehicle and equipment, if applicable.
- Monitor progress towards goals, including Disadvantaged Business Enterprise (DBE) goals. Ensure compliance with DBE policy.
- Assist Collier County with MPO budget, grant compliance and annual audit as necessary. Ensure all MPO Board Members receive a copy of the annual audit.
- Drafting or updating any necessary agreements, resolutions or documents including but not limited to the reapportionment plan, interlocal agreements and coordination agreements.
- Pursue new grant opportunities as they arise to support transportation and related planning.
- Payment of professional membership dues for planning, such as AICP, engineering, such as EIT and ITS, and appropriate legal organizations.
- Purchase of all routine / necessary office supplies for the MPO.
- Printing expenses, either in house or through a vendor.
- Purchase or lease the necessary office equipment such as computers / laptops / monitors / color copiers / printers / scanners / fax machines / iPads / Tablets (or equivalent) / audiovisual aids in order to enhance MPO documentation and communication.
- Software license and maintenance agreements, including but not limited to computer operating systems, Adobe Professional and ArcGIS.
- Maintenance fees from the Collier County Information Technology department (IT) for help desk support and maintenance of MPO computers and related hardware/software, as necessary.
- Develop/update/revise/amend FY 2018/19-2019/20 Unified Planning Work Program.
- Develop an Annual Report to report on annual activities of staff and advisory committees, incorporating PIP statistics, performance measures and the Board's strategic plan.
- Develop annual reports for FHWA, FDOT, and other member governments, as requested.
- Continue to coordinate with FDOT and partner agencies to address and implement performance measures as required.
- Coordinate with FDOT and member agencies to address integration of MAP-21 and FAST Performance Management Measures in an effort to move towards performance based planning.

- Assess progress towards meeting UPWP objectives, project end dates and budget targets.
- Preparation of documents necessary to maintain the Federal and state certification of the Collier MPO’s metropolitan multimodal transportation planning process (MMTPP) and the related requirements associated with Federal funding and the planning process. This includes the preparation of quarterly invoices and an Annual Summary Report to ensure compliance with any federal or state regulations.
- Maintain and update the Continuity of Operations Plan (COOP) or other disaster preparedness procedures and conduct a COOP preparedness training / exercise, as necessary.
- Review, update and distribution of MPO’s Public Involvement Plan (PIP), LEP and the Joint Regional PIP.
- Ongoing Title VI & Environmental Justice evaluations including updating the complaint process and resolving complaints, as necessary.
- Document measures of effectiveness for the PIP.
- Complete MPO/project newsletters, fliers, and outreach materials to educate the public.
- Provides staff for information booths at community events and business trade fairs.
- Ongoing development, update and maintenance/enhancement of MPO website, social media and networking media to engage the public, gain public input and provide document availability, such as the QRC.
- Provide, conduct and review public involvement surveys and responses and public comment periods.
- Ongoing development and maintenance of mailing and community contact lists to ensure adequate notice of public meetings and distribution of public information materials.
- Payment of all postage, FedEx and routine / necessary office supplies for the MPO.
- Consultant assistance as required.

END PRODUCT:

(TARGET DATE)

- Quarterly progress reports. (quarterly)
- Certification documentation, Agreements, Resolutions and JPAs. (annually)
- Annual Audit distribution (annually)
- Compliance with DBE Policy and reporting requirements. (as needed)
- Press releases and solicitation for vacancies on advisory committees. (as needed)
- Monthly agenda packets for advisory committees and the MPO Board (monthly)
- Press releases or legal ads for advisory committee meetings, MPO Board meetings and any other meetings or special workshops/events (monthly/ as needed)
- Annual summary of activities. (as needed)
- Pursue a MPO Internship Program (as necessary)
- Participate in any air quality compliance and regulation training (as necessary)
- Participate in Title VI training. (as necessary)
- Participate in FSUTMS training. (as necessary)
- Participate in GIS training (as necessary)
- Participate in professional development training and workshops. (as necessary)
- Office Lease and usage of car from Collier County Fleet Management for \$735 per quarter and an additional rate of \$0.49 per mile over 1,500 miles (quarterly)

- Office equipment lease (monthly)
- Develop, update and amend the multi-year UPWP. (as needed)
- Updated Continuity Of Operations Plan (COOP) or other disaster preparedness procedures. (ongoing)
- Present new MPO committee and Board member orientation. (as needed)
- Minutes of MPO Board and Advisory Committees and associated subcommittee meetings. (monthly)
- Agendas for the MPO Board and associated Advisory Committees. (Monthly)
- MPO newsletters. (semi-annually)
- Developed, maintained and enhanced MPO website and web pages. (ongoing)
- Disseminated information about MPO events and workshops. (ongoing)
- Timely response to all information requests. (ongoing)
- Review and update of the PIP and Evaluation Guide. (as necessary)
- Published list of projects for which Federal funds are obligated in the preceding year, and make available for public review. (annually)
- Present Annual Report to MPO Board (annually)
- Presentations to MPO committees, Board members and the public regarding the LRTP, TIP, UPWP and other plans (as needed)
- Updates to the Limited English Proficiency (LEP) Plan. (as needed)
- Updates to the community outreach tools to identify Environmental Justice and Title VI populations (as needed)
- Create, update and publish MPO informational materials (ongoing)
- Receive public input from placing documents in municipal buildings, libraries, and advertising on the local government access channels. (ongoing)

RESPONSIBLE AGENCY:

Collier MPO Consultant Services	FY 2018/19 FHWA (PL)	\$305,000
Collier MPO Consultant Services	FY 2019/20 FHWA (PL)	\$259,185

Task 1 - Financial Tables

Task 1 - Administration Estimated Budget Detail for FY 2018/19								
Budget Category	Budget Category Description	FHWA (PL)	FHWA (SU)	FTA 5303	FTA State Match	FTA Local Match	Trans. Disad.	Total
A. Personnel Services								
	MPO staff salaries, fringe benefits, and other deductions	\$249,750	\$0	\$0	\$0	\$0	\$0	\$249,750
	Subtotal:	\$249,750	\$0	\$0	\$0	\$0	\$0	\$249,750
B. Consultant Services								
	Website maintenance, hosting fees, etc.	\$5,000	\$0	\$0	\$0	\$0	\$0	\$5,000
	Subtotal:	\$5,000	\$0	\$0	\$0	\$0	\$0	\$5,000
C. Travel								
	Travel and Professional Development	\$4,000	\$0	\$0	\$0	\$0	\$0	\$4,000
	Subtotal:	\$4,000	\$0	\$0	\$0	\$0	\$0	\$4,000
D. Other Direct Expenses								
	Building or room Rental/lease	\$14,000	\$0	\$0	\$0	\$0	\$0	\$14,000
	Insurance	\$5,000	\$0	\$0	\$0	\$0	\$0	\$5,000
	Cellular Telephone Access and expenses	\$750	\$0	\$0	\$0	\$0	\$0	\$750
	General Copying Expenses, equipment lease, printing charges, repairs and maintenance	\$10,000	\$0	\$0	\$0	\$0	\$0	\$10,000
	General Office Supplies	\$4,000	\$0	\$0	\$0	\$0	\$0	\$4,000
	Legal Advertising	\$3,000	\$0	\$0	\$0	\$0	\$0	\$3,000
	Motor Pool Rental and Car Maintenance /expenses	\$4,500	\$0	\$0	\$0	\$0	\$0	\$4,500
	Postage, business reply permit, freight expenses, etc.	\$4,000	\$0	\$0	\$0	\$0	\$0	\$4,000
	Telephone Access, expenses and system maintenance	\$1,000	\$0	\$0	\$0	\$0	\$0	\$1,000
	Subtotal:	\$46,250	\$0	\$0	\$0	\$0	\$0	\$46,250
	Total:	\$305,000	\$0	\$0	\$0	\$0	\$0	\$305,000

Task 1 - Administration							
Estimated Budget Detail for FY 2019/20							
Budget Category & Description	FHWA (PL)	FHWA (SU)	FTA 5303	FTA State Match	FTA Local Match	Trans. Disad.	Total
A. Personnel Services							
MPO staff salaries, fringe benefits, and other deductions	\$203,935	\$0	\$0	\$0	\$0	\$0	\$203,935
Subtotal:	\$203,935	\$0	\$0	\$0	\$0	\$0	\$203,935
B. Consultant Services							
Website maintenance, hosting fees, etc.	\$5,000	\$0	\$0	\$0	\$0	\$0	\$5,000
Subtotal:	\$5,000	\$0	\$0	\$0	\$0	\$0	\$5,000
C. Travel							
Travel and Professional Development	\$4,000	\$0	\$0	\$0	\$0	\$0	\$4,000
Subtotal:	\$4,000	\$0	\$0	\$0	\$0	\$0	\$4,000
D. Other Direct Expenses							
Building or room Rental/lease	\$14,000	\$0	\$0	\$0	\$0	\$0	\$14,000
Insurance	\$5,000	\$0	\$0	\$0	\$0	\$0	\$5,000
Cellular Telephone Access and expenses	\$750	\$0	\$0	\$0	\$0	\$0	\$750
General Copying Expenses, equipment lease, printing charges, repairs and maintenance	\$10,000	\$0	\$0	\$0	\$0	\$0	\$10,000
General Office Supplies	\$4,000	\$0	\$0	\$0	\$0	\$0	\$4,000
Legal Advertising	\$3,000	\$0	\$0	\$0	\$0	\$0	\$3,000
Motor Pool Rental and Car Maintenance /expenses	\$4,500	\$0	\$0	\$0	\$0	\$0	\$4,500
Postage, business reply permit, freight expenses, etc.	\$4,000	\$0	\$0	\$0	\$0	\$0	\$4,000
Telephone Access, expenses and system maintenance	\$1,000	\$0	\$0	\$0	\$0	\$0	\$1,000
Subtotal:	\$46,250	\$0	\$0	\$0	\$0	\$0	\$46,250
Total:	\$259,185	\$0	\$0	\$0	\$0	\$0	\$259,185

TASK 2 DATA COLLECTION / DEVELOPMENT

DATA COLLECTION / DEVELOPMENT

PURPOSE:

Develop and monitor the multimodal transportation system to preserve capacity, maximize personal mobility and freight movement, ensure user safety and system security, and maintain the transportation system's integrity. Evaluate the system's operating efficiency and conditions to assess current needs, validate the long-range transportation planning model by looking at shorter range tasks, project future travel demand, and identify future improvements. Coordination with local agencies, jurisdictions and municipalities when reviewing and updating the forecasts and plans is essential. Update GIS database to address current conditions related, but not limited to: functional classification; roadway network for District One Regional Transportation Demand Model purposes; bicycle & pedestrian facilities inventory; and prepare various overlays for analytical purposes. Coordinate with Collier County staff on use of the County's Interactive Growth Model (CIGM) in analyzing amendments and updates to the Long Range Transportation Plan.

PREVIOUS WORK:

- Provided current data sources via the MPO's Website.
- Compiled annual traffic data and conducted surveys for Congestion Management Process (CMP) consideration.
- Updated the existing GIS maps. Coordinated with Growth Management Division, Comprehensive Planning staff on land use forecasts and data review. Updated socio-economic data and TAZ structures for the 2040 LRTP Update.

REQUIRED ACTIVITIES:

Coordinate with the planning departments of the municipalities to update the existing land use forecasts and traffic analysis zone updates from the current county build out study effort to assist in these efforts. Review and develop comments and recommendations regarding DRIs, Intergovernmental Coordination Element (ICE) activities, Evaluation and Appraisal Reports (EAR), Intergovernmental Coordination and Review (ICAR), in regard to the MPO Long Range Transportation Plan.

Review of Data:

- Staff and consultant will coordinate with the jurisdiction's Comprehensive Planning Departments regarding land use forecasting efforts to ensure that demographic and employment data at the Traffic Analysis Zone (TAZ) level of regional and local transportation planning efforts are updated.
- Staff will coordinate with the planning and zoning departments of the municipalities to ensure that updated socioeconomic, demographic and employment data are updated.
- Staff will maintain both employment and residential databases to ensure that the locations and projected build-out of major new developments are accounted for in future forecasts.
- Continued coordination with jurisdictions, agencies and municipalities within Collier County and adjacent to Collier County on community master plans, transportation system

plans, multi-modal mobility plans, Strategic Highway Safety Plan etc. and the data used to update and maintain such information.

- Update and review any functional classifications, boundary information and transportation network databases and inventory.
- Participate in update of National Household Travel Survey (as deemed appropriate).
- Review and provide travel demand model information such as Annual Average Daily Traffic (AADT) and volume-to-capacity ratios for planning documents and citizen’s request.
- Continue to track the implementation status of projects and update any project lists as needed.
- Coordinate with FDOT and member agencies to address integration of MAP-21 and FAST Performance Management Measures in the move towards performance based planning.

GIS

- Continue to expand program development for Web-based roadway data exchange and review between agencies.
- Continue to create and update maps and graphics using GIS data.

END PRODUCTS:

(TARGET DATE)

- Updated demographic and employment data forecasts. (as needed)
- Updated Traffic Analysis Zone/Traffic Analysis District structure. (as needed)
- Analysis for the LRTP 2045 update (8th quarter)
- Miscellaneous research reports and analyses. (ongoing)
- Create and update maps and graphics. (ongoing)
- Maintenance of functional classifications, boundary information and TAZ data based on 2010 census. (as needed)

RESPONSIBLE AGENCY:

Collier MPO Consultant Services	FY 2018/19 FHWA (PL)	\$ 20,000
Collier MPO Consultant Services	FY 2019/20 FHWA (PL)	\$ 20,000

Task 2 - Financial Tables

Task 2 - DATA COLLECTION/DEVELOPMENT							
Estimated Budget Detail for FY 2018/19							
Budget Category & Description	FHWA (PL)	FHWA (SU)	FTA 5303	FTA State Match	FTA Local Match	Trans. Disad.	Total
A. Personnel Services							
MPO staff salaries, fringe benefits, and other deductions	\$10,000	\$0	\$0	\$0	\$0	\$0	\$10,000
Subtotal:	\$10,000	\$0	\$0	\$0	\$0	\$0	\$10,000
B. Consultant Services							
Contract/Consultant Services	\$10,000	\$0	\$0	\$0	\$0	\$0	\$10,000
Subtotal	\$10,000	\$0	\$0	\$0	\$0	\$0	\$10,000
Total:	\$20,000	\$0	\$0	\$0	\$0	\$0	\$20,000

Task 2 - DATA COLLECTION/DEVELOPMENT							
Estimated Budget Detail for FY 2019/20							
Budget Category & Description	FHWA (PL)	FHWA (SU)	FTA 5303	FTA State Match	FTA Local Match	Trans. Disad.	Total
A. Personnel Services							
MPO staff salaries, fringe benefits, and other deductions	\$10,000	\$0	\$0	\$0	\$0	\$0	\$10,000
Subtotal:	\$10,000	\$0	\$0	\$0	\$0	\$0	\$10,000
B. Consultant Services							
Contract/Consultant Services	\$10,000	\$0	\$0	\$0	\$0	\$0	\$10,000
Subtotal	\$10,000	\$0	\$0	\$0	\$0	\$0	\$10,000
Total:	\$20,000	\$0	\$0	\$0	\$0	\$0	\$20,000

**TASK 3 TRANSPORTATION IMPROVEMENT
PROGRAM MONITORING AND
DEVELOPMENT**

TRANSPORTATION IMPROVEMENT PROGRAM

PURPOSE:

Develop Multimodal TIPs for FY 2018/2019-2022/2023 and FY 2019/20-2023/24 that identify all Federal, State, and locally funded transportation improvements consistent with the requirements of Federal and State laws. Coordinate with FDOT and member agencies to address integration of MAP-21 and FAST Performance Management Measures in the TIP. This section also includes transportation system planning tasks related to contingency of operations and short-range transportation planning and programming.

PREVIOUS WORK:

- Coordinated with agencies and jurisdictions on transportation plans and programs.
- Developed Annual preparation of TIPs and TIP Amendments with the assistance of a consultant to develop a web-based TIP Tool.

REQUIRED ACTIVITIES

- Coordinate all TIP efforts with FDOT, local agencies, jurisdictions and the STIP.
- Continue to analyze proposed amendments to the current TIP for conformity, policy implications, financial impact, and administrative changes.
- Prepare and distribute updates to the TIP.
- Develop reports that provide information on various aspects of transportation projects and programs.
- Review and prioritize transportation system projects in the LRTP in preparation for the TIP.
- Continue to share project information with other transportation agencies and the public via the MPO website and QRC.
- Prepare project priority lists for the MPO Board and its advisory committees.
- Continued incorporation of Efficient Transportation Decision Making (ETDM) into the transportation planning process.
- Review ETDM projects and purpose and needs statements for projects on MPO priority lists and in the LRTP.
- Continued incorporation of any air quality compliance and related air quality regulations (as necessary).
- Review and update the Collier County Freight and Goods Mobility Analysis as necessary and respond to inquiries regarding this document.
- Review and assess the need for freight strategies and develop them as necessary.
- Coordinate with FDOT and member agencies to address integration of MAP-21 and FAST Performance Management Measures in the move towards performance based planning.

END PRODUCTS:

(TARGET DATE)

- | | |
|---|---|
| <ul style="list-style-type: none"> • Conduct miscellaneous research reports and analyses. • Create and update maps and graphics. • FY 2018/19 Transportation Project Priority List | <p>(ongoing)</p> <p>(ongoing)</p> <p>(4th Quarter)</p> |
|---|---|

- FY 2019/20 Transportation Project Priority List (8th Quarter)
- Updates of available discretionary transportation funding Programs project lists. (as necessary)
- FY 2018/19 – 2022/23 TIP (4th Quarter)
- FY 2019/20 – 2023/24 TIP (8th Quarter)
- TIP Amendments (as necessary)

RESPONSIBLE AGENCY:

Collier MPO	FY 2018/19 FHWA (PL)	\$ 20,000
Collier MPO	FY 2019/20 FHWA (PL)	\$ 20,000

Task 3 - Financial Tables

Task 3 - TIP							
Estimated Budget Detail for FY 2018/19							
Budget Category & Description	FHWA (PL)	FHWA (SU)	FTA 5303	FTA State Match	FTA Local Match	Trans. Disad.	Total
A. Personnel Services							
MPO staff salaries, fringe benefits, and other deductions	\$20,000	\$0	\$0	\$0	\$0	\$0	\$20,000
Subtotal:	\$20,000	\$0	\$0	\$0	\$0	\$0	\$20,000
Total:	\$43,500	\$0	\$0	\$0	\$0	\$0	\$20,000

Task 3 - TIP							
Estimated Budget Detail for FY 2019/20							
Budget Category & Description	FHWA (PL)	FHWA (SU)	FTA 5303	FTA State Match	FTA Local Match	Trans. Disad.	Total
A. Personnel Services							
MPO staff salaries, fringe benefits, and other deductions	\$20,000	\$0	\$0	\$0	\$0	\$0	\$20,000
Subtotal:	\$20,000	\$0	\$0	\$0	\$0	\$0	\$20,000
Total:	\$20,000	\$0	\$0	\$0	\$0	\$0	\$20,000

TASK 4 LONG RANGE PLANNING

LONG RANGE PLANNING

PURPOSE:

To evaluate plans and programs for consistency with the 2040 Long Range Transportation Plan (LRTP) and to begin preparation for a major update of the LRTP to the horizon year of 2045. MAP-21 and FAST Act Performance measures will be integrated into the 2045 LRTP in an effort to move towards performance based planning. This task will work in coordination with other tasks throughout the UPWP, including Administration, Data Collection/Development, and Transit and Transportation Disadvantaged.

PREVIOUS WORK:

The MPO's LRTP was updated to a forecast year of 2040. The MPO adopted the 2040 LRTP in December 2015. The 2040 LRTP was amended three times after adoption. The multi-modal LRTP included transit and bicycle/pedestrian projects (both on- and off-road). The MPO staff worked with member governments and advisory committees to evaluate changing land use patterns, to account for changes that have occurred in the urban fringe and rural lands; as well as the significant growth in Collier County.

REQUIRED TASKS:

- Prepare amendments or updates to the 2040 LRTP as required;
- Continue to execute the public participation plan for any 2040 LRTP amendments or updates;
- Address integration of MAP-21 and FAST Performance Management Measures on the 2040 LRTP, as necessary.
- Continued coordination with the FDOT District 1 regional transportation/planning model Coordinating Committee and local staff on any updates required to the travel demand model tool; including an allocation of \$34,000 of PL funds to FDOT for the Collier MPO's participation in the District 1 Model.
- Continue to incorporate the Efficient Transportation Decision Making (ETDM) Process into the Long Range Multimodal transportation planning process. Continue to work with FDOT to develop projects for the ETDM process as they relate to LRTP projects and priorities and to provide project specific comments as part of the ETDM process.
- Attend meetings and participate on committees of FDOT District 1 Regional Transportation/Planning Model (RPM) Coordinating Committee, GIS Users Groups, Florida Standard Urban Transportation Model Structure (FSUTMS) Users Groups, and others as needed.
- Attend training as necessary on FSUTMS;
- Utilize consultant assistance for modeling support, data development and evaluation, and other support necessary to complete updates to the 2040 LRTP.
- Begin coordination and development of the 2045 LRTP.
- Continued coordination with FDOT District 1 to develop the next generation Regional Planning Model; including an allocation of PL consultant funds to FDOT for the Collier MPO's participation in the District 1 Model.
- Coordinate with member agencies to develop and review socio economic forecasts for the 2045 LRTP.

- Potential - Participate with Lee MPO in Origin/Destination Study
- Potential - Conduct preliminary transportation infrastructure vulnerability assessment using sketch planning tools available on-line at no-cost.
- Incorporate federal performance measures into the 2045 LRTP.
- Begin updating revenue projections, needs plan and cost feasible plan.

END PRODUCT:

(TARGET DATE)

- Evaluate and Amend the current 2040 LRTP' (as needed)
- Data development for the 2045 LRTP (8th quarter)
- Socio-economic forecasts for the 2045 LRTP (8th quarter)
- Evaluate Base model of District 1 Regional Planning Model for 2045 LRTP (6th quarter)
- Financial Revenue Forecasts for 2045 LRTP (8th quarter)
- Updated model of District 1 RPM for 2045 LRTP (as needed)
- Review Financial Revenue Forecasts for 2045 LRTP (as needed)

RESPONSIBLE AGENCY:

Collier MPO Consultant Services	FY 2018/19 FHWA (PL)	\$162,379
Collier MPO Consultant Services FDOT District One Modeling	FY 2019/20 FHWA (PL)	\$150,379

Task 4 - Financial Tables

Task 4 - Long Range Planning Estimated Budget Detail for FY 2018/19							
Budget Category & Description	FHWA (PL)	FHWA (SU)	FTA 5303	FTA State Match	FTA Local Match	Trans. Disad.	Total
A. Personnel Services							
MPO staff salaries, fringe benefits, and other deductions	\$40,000	\$0	\$0	\$0	\$0	\$0	\$40,000
Subtotal:	\$40,000	\$0	\$0	\$0	\$0	\$0	\$40,000
B. Consultant Services							
2045 LRTP	\$122,379	\$0	\$0	\$0	\$0	\$0	\$122,379
Subtotal:	\$122,379	\$0	\$0	\$0	\$0	\$0	\$122,379
Total:	\$162,379	\$0	\$0	\$0	\$0	\$0	\$162,379

Task 4 - Long Range Planning Estimated Budget Detail for FY 2019/20							
Budget Category & Description	FHWA (PL)	FHWA (SU)	FTA 5303	FTA State Match	FTA Local Match	Trans. Disad.	Total
A. Personnel Services							
MPO staff salaries, fringe benefits, and other deductions	\$30,000	\$0	\$0	\$0	\$0	\$0	\$30,000
Subtotal:	\$30,000	\$0	\$0	\$0	\$0	\$0	\$30,000
B. Consultant Services							
2045 LRTP	\$86,379	\$0	\$0	\$0	\$0	\$0	\$86,379
FDOT District 1 Model	\$34,000	\$0	\$0	\$0	\$0	\$0	\$34,000
Subtotal:	\$120,379	\$0	\$0	\$0	\$0	\$0	\$120,379
Total:	\$150,379	\$0	\$0	\$0	\$0	\$0	\$150,379

**TASK 5 SPECIAL PROJECTS AND SYSTEMS
PLANNING**

SPECIAL PROJECTS & SYSTEMS PLANNING

PURPOSE:

To complete various recurring and non-recurring planning projects. These projects will assist in providing a balanced, multimodal transportation system.

PREVIOUS WORK:

- Staff support to the citizen-based Bicycle & Pedestrian Advisory Committee.
- Development of annual Work Program priorities for construction of new sidewalks, pathways and bike lanes.
- Served as liaison to FDOT to communicate the need for bicycle and pedestrian facilities on State roads.
- Completed an update of the Comprehensive Pathways Plan in 2012. Began the Bicycle and Pedestrian Master Plan in 2017. The plan is expected to be completed in the 2nd quarter of 2018.
- Coordinated with the City of Naples, Marco Island, Everglades City, and Collier County Staff to complete an inventory of the current bike and pedestrian facilities.
- Incorporated the inventory into the Collier County Bicycle and Pedestrian Facilities Map which will be published in 2018.
- Completed the Naples Manor Walkable Community Study (March 2010), Immokalee Walkable Community Study (December 2011), and the Golden Gate Walkable Community Study (June 2018).
- Participated in the US 41 (Commercial Drive to Guilford Road) and Airport Pulling Road (US 41 to Estey Avenue) Pedestrian/ Bicycle Safety Audit.
- The MPO first adopted CMS priorities in August 2003.
- Developed the CMC Stakeholders Committee which developed the concept for the update of the CMP in 2006.
- Updated CMP in 2008 and in 2017 to better define the CMP performance measures and process for projects.

REQUIRED TASKS:

BICYCLE AND PEDESTRIAN PLANNING SUPPORT:

- Consultant services to complete the Bicycle and Pedestrian Master Plan .
- Conduct an annual project prioritization process, if needed.
- Participate in special events that promote bicycle/pedestrian activities and safety education.
- Continue outreach to Naples Pathway Coalition, Community Traffic Safety Team and Healthy Community Coalition of Collier County to gain community support of Bicycle and Pedestrian initiatives.
- Coordinate with MPO member governments and School District regarding data collection activities to quantify number of bicyclists and pedestrians at specific locations around Collier County.

- Coordinate with FDOT and local governments to ensure that roadway expansion and retrofit projects work towards meeting the bicycle/pedestrian goals identified in the Bicycle and Pedestrian Master Plan.
- Work with the Technical Advisory Committee (TAC) and School District to identify candidate projects for Safe Routes to Schools Program.
- Analyze bicycle/pedestrian facilities and crashes
- Update the multi-modal components of the LRTP, and LOS analysis as needed.
- Incorporate bicycle and pedestrian facilities plans and programs into multi-modal and mode-shift efforts.
- Coordinate with, and coordinate support for, the transit modal interface.
- Attend and participate in workshops and seminars sponsored by FHWA, FDOT and other professional organizations as appropriate.
- Coordinate with FDOT and member agencies to address integration of MAP-21 and FAST Performance Management Measures into Bicycle and Pedestrian planning in the move towards performance based planning.
- Consultant services may be used on this task.

CONGESTION MANAGEMENT PROCESS SUPPORT:

- Review CMP 2017 Update with the Congestion Management Committee (CMC) and prioritize CMP projects for funding from Federal, State or local sources.
- Complete a biannual Transportation System Performance Report to provide a thorough system assessment in order to identify where priority investments should be made.
- Staff will continue to coordinate with the Lee County MPO by attending their Traffic Management and Operations Committee (TMOC) and on the Collier/Lee/Charlotte Traffic Incident Management Committee to the extent necessary and feasible.
- Continue to coordinate with Collier Area Transit (CAT) and LeeTran with the LinC system which connects CAT and LeeTran; thereby connecting two counties over an expansive geographical area.
- Coordinate with FDOT and member agencies to address Congestion Management Planning in an effort to move towards performance based planning.
- Consultant and/or MPO staff will continue to review the current CMP and will update or revise the plan to reflect the latest strategies and performance measures as necessary.
- Attend and participate in local, jurisdictional, agency, municipality, FDOT and Lee MPO technical meetings and workshops related to CMC, CMP, and congestion relief strategies.
- Consultant and/or MPO staff to gather traffic volume, traffic signal, and roadway geometry information and crash statistics to facilitate the MPO's assessment of congestion for the Metropolitan Area.
- Facilitate "best practices" approach for incorporating CMP measures into existing plans and programs, including preliminary engineering, traffic simulation modeling, and project prioritization.
- Staff will continue to research alternative transportation choices to include Transportation Demand Management (TDM) strategies in the CMP.

END PRODUCT:

(TARGET DATE)

- Prioritized Transportation Alternative Program Projects (as needed)
- Prioritized Bicycle and Pedestrian Projects for inclusion in FDOT’s Work Program. (as needed)
- Coordinated efforts with member governments. (ongoing)
- Review pathways element of Regional Transportation Network. (annually)
- Participate in meetings and activities of Community Traffic Safety Team (CTST) (monthly)
- Maintain, update and publish Bike/Ped Users Map (as needed)
- Collect and analyze bicycle and pedestrian crash data (as needed)
- Bicycle and Pedestrian Master Plan (2nd quarter)
- Transportation System Performance Report (7th quarter)
- Updated Congestion Management Process. (as necessary)
- Updated CMP project identification and prioritization Methodology. (as necessary)
- Updated transportation project information. (ongoing)
- Updated traffic volume, signal and roadway geometry information (as necessary)
- Prioritized Congestion Management projects for funding. (as necessary)

RESPONSIBLE AGENCY:

Collier MPO Consultant Services	FY 2018/19 FHWA (PL)	\$117,000
Collier MPO Consultant Services	FY 2019/20 FHWA (PL)	\$67,000

Task 5 - Financial Tables

Task 5 - Special Projects & Systems Planning Estimated Budget Detail for FY 2018/19							
Budget Category & Description	FHWA (PL)	FHWA (SU)	FTA 5305	FTA State Match	FTA Local Match	Trans. Disad.	Total
A. Personnel Services							
MPO staff salaries, fringe benefits, and other deductions	\$50,000	\$0	\$0	\$0	\$0	\$0	\$50,000
Subtotal:	\$50,000	\$0	\$0	\$0	\$0	\$0	\$50,000
B. Consultant Services							
Transportation System Performance Report	\$61,000	\$0	\$0	\$0	\$0	\$0	\$61,000
Bicycle and Pedestrian Master Plan	\$6,000	\$0	\$0	\$0	\$0	\$0	\$6,000
Subtotal:	\$67,000	\$0	\$0	\$0	\$0	\$0	\$67,000
Total:	\$117,000	\$0	\$0	\$0	\$0	\$0	\$117,000

Task 5 - Special Projects & Systems Planning Estimated Budget Detail for FY 2019/20							
Budget Category & Description	FHWA (PL)	FHWA (SU)	FTA 5305	FTA State Match	FTA Local Match	Trans. Disad.	Total
A. Personnel Services							
MPO staff salaries, fringe benefits, and other deductions	\$50,000	\$0	\$0	\$0	\$0	\$0	\$50,000
Subtotal:	\$50,000	\$0	\$0	\$0	\$0	\$0	\$50,000
B. Consultant Services							
Transportation System Performance Report	\$17,000	\$0	\$0	\$0	\$0	\$0	\$17,000
Subtotal:	\$17,000	\$0	\$0	\$0	\$0	\$0	\$17,000
Total:	\$67,000	\$0	\$0	\$0	\$0	\$0	\$67,000

**TASK 6 TRANSIT AND TRANSPORTATION
DISADVANTAGED PLANNING**

TRANSIT & TRANSPORTATION DISADVANTAGED PLANNING

PURPOSE:

To develop the LRTP, TIP and other plans, programs and technical studies relating to public transportation at a system level for Collier County. To oversee and provide planning services for a coordinated Transportation Disadvantaged (TD) Program in Collier County, in accordance with Chapter 427 of the Florida Statutes (FS) and Florida Administrative Code (F.A.C.) Rule 41-2.

PREVIOUS WORK:

- Compilation of transit operations data, including ridership, fare revenues, and other pertinent data to evaluate efficiency and effectiveness of the transit system.
- Major Update and Annual Progress reports for the TDP.
- Coordinated with PTNE to address Transit Asset Management (TAM).
- Long Range Transit Needs section as part of the adopted 2040 LRTP.
- Completed the Comprehensive Operational Analysis (COA) which includes a complete evaluation of programmed services to determine the most effective approach to providing transportation service in Collier County within the current financial and operating constraints.
- Completed the Transit Development Plan (TDP) major update which was adopted in August 2015.
- Completed the American's with Disabilities Act (ADA) Bus Stop Assessment / Study.
- Completed the Transit Fare Analysis Study addressing fixed route and paratransit.
- Participated in the development of Rule 41-2, F.A.C.
- Attended meetings of the TD Commission.
- Provided staff services to the Local Coordinating Board (LCB).
- Managed the TD services and prepared grant applications.
- As the Designated Official Planning Agency (DOPA), completed the Community Transportation Coordinator renewal in 2018.
- Completed the Annual Community Transportation Coordinator (CTC) evaluations.
- Began the TDSP major update in 2018.
- Completed the TDSP Minor Updates.
- Began the Transit Fare Analysis Study (expected to be completed in June 2018)
- Coordinated with PTNE to review a scope of work for the Transit Impact Analysis.

REQUIRED TASKS:

TRANSIT:

- Conduct and maintain the operations of the MPO including providing administrative support activities such as financial management, contract management, public outreach, personnel matters, procurement of equipment and supplies and general management of Transit Planning at the system level within the MPO. (Technical Code (TC) # 44.21.00)

- MPO staff and Board, and PTNE staff will attend and participate in meetings, seminars, training and workshops related to public transportation service which may include fixed route, ADA and ParaTransit Services. (TC # 44.21.00)
- Coordinate with transportation partners to identify transit projects for various State and Federal funding programs. (TC # 44.27.00)
- Prepare Transit Joint Participation Agreements and Section 5305(d) Grant Applications for submittal with biannual UPWP and during the interim year. (TC # 44.21.00)
- Update of annual Disadvantaged Business Enterprise (DBE) goals (TC #44.21.00).
- Annual preparation of TIPs and TIP Amendments with the assistance of a consultant (TC #44.25.00).
- Coordinate with the planning departments of the municipalities to ensure that a multi-modal aspect is included in their plans or projects (TC #44.22.00).
- MPO and CAT staff will provide project management for consultant work activities associated with the major update and annual reports to the TDP. (TC # 44.24.00)
- MPO staff will coordinate with CAT staff on the major updates and annual reports to the TDP. (TC # 44.24.00)
- Consultant and staff activities for the 2045 Long Range Transportation Plan. (TC #44.23.01 and 44.23.02)
- Consultant and staff activities for the Minor Annual Updates to the TDSP which also may serve as the Locally Coordinated Human Services Transportation Plan (LCHSTP) as required for FTA §5307, §5310 and §5311 and the programs previously known as Job Access and Reverse Commute (JARC) and New Freedom programs. (TC #44.26.12)
- If the BCC becomes the designated recipient of additional FTA funds, the MPO staff will coordinate as needed with the designated recipient regarding the grants. (TC #44.26.12)
- MPO staff will coordinate with PTNE and consultants regarding any multi-modal safety initiatives. (TC# 44.26.00 and 44.26.16)
- MPO staff will coordinate with PTNE to address transit performance measures as required. (TC #44.26.00)
- Consultant and staff activities to conduct a Transit Impact Analysis Study which will evaluate the demand placed on the community's transit network by development, which is an important dimension of the overall transportation network that is overlooked when assessing the impacts of development. (TC # 44.23.01 and 44.24.00)
- Consultant and staff activities to prepare the Transit Element of the 2045 Long Range Transportation Plan. (TC #44.22.00)
- Consultant and staff activities to prepare a Collier Area Transit Park and Ride Study. (TC # 44.26.15)
- Consultant and staff activities to prepare a major update to the CAT Transit Development Plan. (TC #44.24.00)

TRANSPORTATION DISADVANTAGED (TC#44.26.12, 44.26.13, 44.26.14 and 44.26.15):

- Monitor and evaluate performance of the CTC.
- Monitor Unmet Needs as determined by the TDSP Major Update.
- Cooperate with the CTC in developing funding applications.
- Coordinate with TD Commission and the LCB to ensure the maintenance of the Paratransit System.

- Attend and participate in meetings, seminars and workshops sponsored by the CTD and FDOT.
- Provide staff support to the LCB Board. Technical assistance includes preparation of meeting materials, meeting notices including legal advertisements of meetings and meeting advertisements in the Department of State Florida Administrative Register, official minutes, and maintaining permanent meeting records.
- Coordinate TD planning with the Transit Development Plan
- Insure effective coordination of non-emergency transportation services in metropolitan and Immokalee rural areas.
- Review system safety and security considerations.

END PRODUCT:

(TARGET DATE)

- Submissions of various grant applications throughout the year. (ongoing)
- Annual Transit Performance Report by PTNE. (annually)
- Complete FTA Section 5305(d) Grant application. (annually)
- Complete JPA (as needed)
- Preparation of TDP Annual Updates (PTNE and MPO) (2nd and 8th Quarter)
- Develop and amend the TIP (2nd and 8th Quarter)
- Transit Impact Analysis (4th Quarter)
- Park and Ride Study (6th Quarter)
- Transit Element of the Long Range Transportation Plan (8th Quarter)
- TD Services Program (maintained by CTC). (ongoing)
- Increased access to medical, social, recreational, shopping and jobs for the TD. (Ongoing)
- Major Update of the TDSP (2nd Quarter)
- Minor Update of TDSP (8th Quarter)
- Completed and accepted grant applications. (ongoing)
- Updated Memoranda of Agreements, service contracts. (as required)
- Prepared and distributed agendas and minutes for meetings. (quarterly)
- FY 2018/19 annual evaluation of the CTC. (4th Quarter)
- FY 2019/20 annual evaluation of the CTC. (8th Quarter)
- A TD Element in the TIP. (annually)

RESPONSIBLE AGENCY:

FY 2018/19

Public Transit & Neighborhood Enhancement	FHWA (PL)	\$ 5,000
Collier MPO	FTA (Sec. 5305) FY 17/18	\$113,655
Collier Area Transit	State (cash match) FY 17/19	\$ 14,207
Consultant Services	Local match (FY 17/18)	\$ 14,207
	FTA (Sec. 5305) FY 18/19	\$113,655
	State (cash match) FY 18/19	\$ 14,207
	Local match FY 18/19	\$ 14,207
	State TD Trust Fund	\$ 26,915

FY 2019/20

Public Transit & Neighborhood Enhancement	FTA (Sec. 5305)	\$113,655
Collier MPO	State (cash match)	\$ 14,207
Collier Area Transit	Local match	\$ 14,207
Consultant Services	State TD Trust Fund	\$ 26,915

Attachment: Draft FY 2018/19-2019/20 UPWP (4983 : Review of Draft Fiscal Year 2018/19-2019/20 Unified Planning Work Program)

Task 6 - Financial Tables

Task 6 - Transit & TD Planning Estimated Budget Detail for FY 18/19									
Budget Category & Description	FTA 5305 FY 17/18	FTA State Match FY 17/18	FTA Local Match FY 17/18	FHWA (PL)	FTA 5305 FY 18/19	FTA State Match FY 18/19	FTA Local Match FY 18/19	Trans. Disad.	Total
A. Personnel Services									
MPO staff salaries, fringe benefits, and other deductions	\$74,965	\$9,370	\$9,370	\$0	\$19,264	\$2,408	\$2,408	\$21,055	\$21,055
Subtotal:	\$74,965	\$9,370	\$9,370	\$0	\$19,264	\$2,408	\$2,408	\$21,055	\$138,840
B. Consultant Services									
Transit Impact Analysis	\$32,800	\$4,100	\$4,100	\$0	\$0	\$0	\$0	\$0	\$41,000
Park and Ride Study	\$0	\$0	\$0	\$0	\$48,000	\$6,000	\$6,000	\$0	\$60,000
TDP Major Update	\$0	\$0	\$0	\$0	\$43,671	\$5,459	\$5,459	\$0	\$54,589
TDSP Major Update	\$0	\$0	\$0	\$5,000	\$0	\$0	\$0	\$6,000	\$5,000
Subtotal:	\$32,800	\$4,100	\$4,100	\$5,000	\$91,671	\$11,459	\$11,459	\$6,000	\$160,589
C. Travel									
MPO Staff and PTNE staff attendance at training and conferences	\$3,887	\$486	\$486	\$0	\$1,600	\$200	\$200	\$2,000	\$8,859
Subtotal:	\$3,887	\$486	\$486	\$0	\$1,600	\$200	\$200	\$2,000	\$8,859
D. Other Direct Expenses									
Legal Ads	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,760	\$2,760
Website	\$240	\$30	\$30	\$0	\$240	\$30	\$30	\$0	\$600
Fed Ex/ Postage	\$120	\$15	\$15	\$0	\$80	\$10	\$10	\$1,100	\$1,350
Office Supplies	\$1,643	\$206	\$206	\$0	\$800	\$100	\$100	\$0	\$3,055
Subtotal:	\$2,003	\$251	\$251	\$0	\$1,120	\$140	\$140	\$3,860	\$7,765
Total:	\$113,655	\$14,207	\$14,207	\$5,000	\$113,655	\$14,207	\$14,207	\$26,915	\$316,053

Task 6 – Transit & TD Planning							
Estimated Budget Detail for FY 19/20							
Budget Category & Description	FHWA (PL)	FHWA (SU)	FTA 5305	FTA State Match	FTA Local Match	Trans. Disad.	Total
A. Personnel Services							
MPO staff salaries, fringe benefits, and other deductions	\$0	\$0	\$19,264	\$2,408	2,408	\$21,055	\$45,135
Subtotal:	\$0	\$0	\$19,264	\$2,408	\$2,408	\$21,055	\$45,135
B. Consultant Services							
Transit Element of 2045 LRTP	\$0	\$0	\$36,000	\$4,500	\$4,500	\$0	\$45,000
TDP Major Update	\$0	\$0	\$52,501	\$6,562	\$6,562	\$0	\$65,625
Subtotal:	\$0	\$0	\$88,501	\$11,062	\$11,062	\$0	\$110,625
C. Travel							
MPO Staff and PTNE staff attendance at training and conferences	\$0	\$0	\$3,887	\$486	\$486	\$2,000	\$6,859
Subtotal:	\$0	\$0	\$3,887	\$486	\$486	\$2,000	\$6,859
D. Other Direct Expenses							
Legal Ads	\$0	\$0	\$0	\$0	\$0	\$2,760	\$2,760
Website	\$0	\$0	\$240	\$30	\$30	\$0	\$300
Fed Ex/ Postage	\$0	\$0	\$120	\$15	\$15	\$1,100	\$1,250
Office Supplies	\$0	\$0	\$1,643	\$206	\$206	\$0	\$2,055
Subtotal:	\$0	\$0	\$2,003	\$251	\$251	\$3,860	\$6,365
Total:	\$0	\$0	\$113,655	\$14,207	\$14,207	\$26,915	\$168,984

TASK 7 REGIONAL COORDINATION

REGIONAL COORDINATION

PURPOSE:

Provide for the creation of a region-wide multimodal transportation planning process in accordance with Federal and State guidelines to ensure the coordination of transportation planning and policy activities in FDOT District One.

PREVIOUS WORK:

- Represented the MPO at local, regional, State and Federal meetings.
- Attended quarterly Coordinated Urban Transportation Studies (CUTS) meetings, MPOAC meetings.
- Developed and updated an interlocal agreement between the Collier MPO and the Lee County MPO coordinating regional transportation solutions.
- Development and adoption of Lee-Collier Bi-County Regional Transportation Network that includes Strategic Intermodal System (SIS) and other important cross-county connections and intermodal facilities.
- Developed, adopted, and updated the Regional Transportation Network Priorities for Statewide Discretionary funding.
- Developed the evaluation criteria for and ranking of candidate Transportation Regional Incentive Program (TRIP) projects.
- The 2040 District wide model.

REQUIRED ACTIVITIES:

- Participation in the Lee County MPO and advisory committee meetings.
- Participation and coordination of Joint MPO Board and Joint Advisory Committee meetings with Lee County.
- Coordinate with FDOT, Lee County MPO, other adjoining MPOs and adjoining jurisdictions, municipalities or agencies to ensure that regional needs are being addressed and planning activities are consistent. Such coordination includes but is not limited to discussion of regional plans, review of the Strategic Intermodal System (SIS) plan, evaluation and ranking of TRIP projects, and update of Joint priorities for regional and statewide funding.
- Develop, adopt and update regional transportation priorities, including the Regional Transportation Network Priorities, the Transportation Regional Incentive Program (TRIP) projects and Regional Enhancement Priorities.
- Manage consultant services as required.
- Participation and membership in, the Association of Metropolitan Planning Organizations (AMPO), MPOAC, District One CUTS, FDOT / FHWA quarterly conference calls and regional quarterly meetings, and Florida's Heartland Regional Economic Development Initiative (FHREDI) meetings. Travel may be required for this activity.
- Analysis of State and Federal laws and regulations for MPOs, committees and local government officials to aid them in the application of regional transportation policy strategies.

END PRODUCT:

(TARGET DATE)

- An enhanced regional transportation planning process. (ongoing)
- Participation in the statewide MPOAC, the quarterly MPO Staff Directors’ Advisory Committee and MPOAC subcommittees, and FDOT District One CUTS meetings. (quarterly)
- Participation in the Lee County TAC meetings. (monthly)
- Joint meetings with the Lee County MPO advisory committees and MPO Board. (annually)
- Participation in SWFRPC planning process. (as necessary)
- Updated TRIP Priorities. (as necessary)
- Updated Joint MPO Priorities for Statewide Discretionary Funding (as needed)
- Develop and update regional transportation priorities. (as needed)
- Attend meetings organized or recommended by FHWA/FTA/FDOT (as needed)

RESPONSIBLE AGENCY:

Collier MPO	FY 2018/19 FHWA (PL)	\$35,000
Collier MPO	FY 2019/20 FHWA (PL)	\$30,000

Task 7 - Financial Tables

Task 7- Regional Coordination							
Estimated Budget Detail for FY 2018/19							
Budget Category & Description	FHWA (PL)	FHWA (SU)	FTA 5303	FTA State Match	FTA Local Match	Trans. Disad.	Total
A. Personnel Services							
MPO staff salaries, fringe benefits, and other deductions	\$28,000	\$0	0	0	0	0	\$28,000
Subtotal:	\$28,000	\$0	\$0	\$0	\$0	\$0	\$28,000
B. Travel							
Travel to MPOAC and any other out of county activities as necessary	\$7,000	\$0	\$0	\$0	\$0	\$0	\$7,000
Subtotal:	\$7,000	\$0	\$0	\$0	\$0	\$0	\$7,000
Total:	\$35,000	\$0	\$0	\$0	\$0	\$0	\$35,000

Task 7- Regional Coordination							
Estimated Budget Detail for FY 2019/20							
Budget Category & Description	FHWA (PL)	FHWA (SU)	FTA 5303	FTA State Match	FTA Local Match	Trans. Disad.	Total
A. Personnel Services							
MPO staff salaries, fringe benefits, and other deductions	\$25,000	\$0	0	0	0	0	\$25,000
Subtotal:	\$25,000	\$0	\$0	\$0	\$0	\$0	\$25,000
B. Travel							
Travel to MPOAC and any other out of county activities as necessary	\$5,000	\$0	\$0	\$0	\$0	\$0	\$5,000
Subtotal:	\$5,000	\$0	\$0	\$0	\$0	\$0	\$5,000
Total:	\$30,000	\$0	\$0	\$0	\$0	\$0	\$30,000

TASK 8 LOCALLY FUNDED ACTIVITIES

LOCALLY FUNDED ACTIVITIES

PURPOSE:

To cover any MPO expenses deemed not eligible or reimbursable by FHWA PL, TD or FTA Section 5305(d) funding.

PREVIOUS WORK:

- Preparation of resolutions and policy positions with respect to legislative issues.
- Reimbursement of travel and training expenses not eligible for reimbursement from the FHWA PL, TD or FTA Section 5305(d) Grants.

REQUIRED TASKS:

Requests are often made of MPO staff to prepare resolutions and policy position statements which are not eligible for grant reimbursement. Travel expenses will be reimbursed consistent with the MPO’s adopted policy, and any expenses that are not eligible for grant reimbursement will be funded from this task.

TASK ACTIVITIES:

- Preparation of resolutions and policy positions with respect to legislative issues.
- Payment for training and travel that is not eligible for FHWA PL, TD or FTA Section 5305(d) reimbursement.
- Payment of any shortfall of Consultant or Personnel costs.
- Payment of funds to operate the MPO until reimbursement by the grantor.

END PRODUCT:

(TARGET DATE)

- Resolutions and policy position statements. (as necessary)
- Membership to AICP, AMPO, and other organizations. (as necessary)
- Training and travel. (as necessary)
- Funds necessary to operate the MPO. (as necessary)

RESPONSIBLE AGENCY:

	FY 2018/19	
Collier MPO	Local Funds	\$ 8,000
	FY 2019/20	
Collier MPO	Local Funds	\$ 8,000

Task 8 - Financial Tables

Task 8 - Locally Funded Activities Estimated Budget Detail for FY 2018/19								
Budget Category & Description	FHWA (PL)	FHWA (SU)	FTA 5303	FTA State Match	FTA Local Match	Trans. Disad.	Other	Total
A. Miscellaneous Expenses								
Resolutions and policy positions, travel, membership dues, and any other expenses not eligible for grant reimbursement	\$0	\$0	\$0	\$0	\$0	\$0	\$8,000	\$8,000
Total:	\$0	\$0	\$0	\$0	\$0	\$0	\$8,000	\$8,000

Task 8 - Locally Funded Activities Estimated Budget Detail for FY 2019/20								
Budget Category & Description	FHWA (PL)	FHWA (SU)	FTA 5303	FTA State Match	FTA Local Match	Trans. Disad.	Other	Total
A. Miscellaneous Expenses								
Resolutions and policy positions, travel, membership dues, and any other expenses not eligible for grant reimbursement	\$0	\$0	\$0	\$0	\$0	\$0	\$8,000	\$8,000
Total:	\$0	\$0	\$0	\$0	\$0	\$0	\$8,000	\$8,000

TASK 9 STATE SUPPORT

STATE SUPPORT FOR FTA SECTION 5305(D)

PURPOSE:

To provide guidance, technical assistance and one-half the cash match to the MPO, in support of the transit planning activities; provide one-half the local cash match for the FTA Section 5303 or 5305(d) funds supporting UPWP Tasks.

PREVIOUS WORK:

- Annual State support since FY 1997-1998.

METHODOLOGY:

The FDOT will assist the MPO staff in the guidance and support of transit project planning efforts. Management efforts include State support in the form of a cash match. Funding in this category is contingent upon execution of a Joint Participation Agreement (JPA) between FDOT and the MPO.

END PRODUCT:

(TARGET DATE)

- Cash match and assistance with management and technical tasks funded with FTA Section 5303/5305(d) funds. (Ongoing)

RESPONSIBLE AGENCY:

		FY 2018/19	
FDOT		FDOT (17/18)	\$14,207
		FDOT (18/19)	\$14,207
		FY 2019/20	
FDOT		FDOT	\$14,207

TABLES

**TABLE 1
AGENCY PARTICIPATION**

FY2018/19

Task #	Task Description	De-obligation from 17/18	FHWA (PL)	FTA Section 5305*	FDOT		Local	TD Trust	Total	Amount to Consultant
					Soft Match	Cash Match				
1	Administration	\$ 60,000	\$ 245,000	\$ -	\$ 67,269	\$ -	\$ -	\$ -	\$ 372,269	\$ 5,000
2	Data Collection/ Development	\$ -	\$ 20,000	\$ -	\$ 4,411	\$ -	\$ -	\$ -	\$ 24,411	\$ 10,000
3	Transportation Improvement Program (TIP)	\$ -	\$ 20,000	\$ -	\$ 4,411	\$ -	\$ -	\$ -	\$ 24,411	\$ -
4	Long Range Planning	\$ -	\$ 162,379	\$ -	\$ 35,813	\$ -	\$ -	\$ -	\$ 198,192	\$ 122,379
5	Special Projects and Systems Planning	\$ 67,000	\$ 50,000	\$ -	\$ 25,805	\$ -	\$ -	\$ -	\$ 142,805	\$ 67,000
6	Transit and Transportation Disadvantaged		\$ 5,000	\$ 227,310	\$ 1,103	\$ 28,414	\$ 28,414	\$ 26,915	\$ 317,156	\$ 160,589
7	Regional Coordination	\$ 5,000	\$ 30,000	\$ -	\$ 7,719	\$ -	\$ -	\$ -	\$ 42,719	\$ -
8	Locally Funded Activities	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 8,000	\$ -	\$ 8,000	\$ -
	Total fiscal year 2018/19 funds for all tasks	\$ 132,000	\$ 532,379	\$ 227,310	\$ 146,531	\$ 28,414	\$ 36,414	\$ 26,915	\$ 1,129,963	
	Total De-obligation from prior fiscal years	\$ 132,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 132,000	
	Total cost, including carryover, for all tasks	\$ 132,000	\$ 532,379	\$ 227,310	\$ 146,531	\$ 28,414	\$ 36,414	\$ 26,915	\$ 1,129,963	\$ 364,968

	FHWA PL	FDOT	FTA 5305	TD Trust	Collier Co.	Naples	Everglades	Marco Is.	Total
State Support/Match for MPO (1)	\$ -	\$ 146,531	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 146,531
FY 18/19 State and Local Support for FTA Program (2)	\$ -	\$ 14,207	\$ -	\$ -	\$ 8,879	\$ 3,552	\$ -	\$ 1,776	\$ 28,414
FY 2018/19 Funding	\$ 532,379	\$ -	\$ 113,655	\$ 26,915	\$ -	\$ -	\$ -	\$ -	\$ 672,949
FY 2018/19 Local Funding	\$ -	\$ -	\$ -	\$ -	\$ 5,000	\$ 2,000	\$ -	\$ 1,000	\$ 8,000
5305 Carryover	\$ -	\$ 14,207	\$ 113,655	\$ -	\$ 8,879	\$ 3,552	\$ -	\$ 1,776	\$ 142,069
De-Obligation from Prior Fiscal Years	\$ 132,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 132,000
Total cost, including carryover, for all tasks	\$ 664,379	\$ 174,945	\$ 227,310	\$ 26,915	\$ 22,759	\$ 9,104	\$ -	\$ 4,552	\$ 1,129,963

- (1) For FY 2018/2019, FDOT will "soft match" the MPP/PL Funds using toll revenue expenditures as a credit toward the non-Federal matching share. The amount identified on this line represent the amount of "soft match" required (both State and local) for the amount of Federal PL section 112 funds requested in this UPWP.
- (2) This amount identified on this line represents the amount of FTA 5305 funding and the amount of local match (10%) required.
- * - FTA Section 5305 includes 2017/18 and 18/19 funding

T-1



TABLE 2
FUNDING SOURCE TABLE
FY 2018/19

Task #	Task Description	De-obligated Funding from 17/18	FHWA PL Federal	FDOT Soft Match	TOTAL FEDERAL PL	FTA 5305 2017-18 (Carry Forward)			FTA 5303 2018-19			State TD Trust	Local Funding	Total
						Federal	State	Local	Federal	State	Local			
1	Administration	\$ 60,000	\$ 245,000	\$ 67,269	\$ 305,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 372,269
2	Data Collection/Development		\$ 20,000	\$ 4,411	\$ 20,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 24,411
3	Transportation Improvement Program (TIP)		\$ 20,000	\$ 4,411	\$ 20,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 24,411
4	Long Range Planning		\$ 162,379	\$ 35,813	\$ 162,379	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 198,192
5	Special Projects and Systems Planning	\$ 67,000	\$ 50,000	\$ 25,805	\$ 117,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 142,805
6	Transit and Transportation Disadvantaged	\$ -	\$ 5,000	\$ 1,103	\$ 5,000	\$ 113,655	\$ 14,207	\$ 14,207	\$ 113,655	\$ 14,207	\$ 14,207	\$ 26,915	\$ -	\$ 317,155
7	Regional Coordination	\$ 5,000	\$ 30,000	\$ 7,719	\$ 35,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 42,719
8	Locally Funded Activities	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 8,000	\$ 8,000
	Total fiscal year 2018/19 funds for all tasks	\$ 132,000	\$ 532,379	\$ 146,531	\$ 664,379	\$ 113,655	\$ 14,207	\$ 14,207	\$ 113,655	\$ 14,207	\$ 14,207	\$ 26,915	\$ 8,000	\$ 1,129,966
	State Support/Match for MPO (1)	\$ -	\$ -	\$ 146,531	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 146,531
	State and Local Support for FTA Program (2)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 14,207	\$ 14,207	\$ -	\$ -	\$ 28,414
	FY 2018/19 Funding	\$ -	\$ 532,379	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 113,655	\$ -	\$ -	\$ 26,915	\$ -	\$ 672,949
	FY 2018/19 Local Funding	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 8,000	\$ 8,000
	Roll Forward from Prior Fiscal Year	\$ 132,000		\$ -	\$ -	\$ 113,655	\$ 14,207	\$ 14,207	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 274,069
	Total cost, including carryover, for all tasks	\$ -	\$ 532,379	\$ 146,531	\$ -	\$ 113,655	\$ 14,207	\$ 14,207	\$ 113,655	\$ 14,207	\$ 14,207	\$ 26,915	\$ 8,000	\$ 1,129,966



**TABLE 3
AGENCY PARTICIPATION
FY 2017/18**

Task #	Task Description	FHWA (PL)	FTA Section 5305	FDOT		Local	TD Trust	Total	Amount to Consultant
				Soft Match	Cash Match				
1	Administration	\$ 259,185	\$ -	\$ 57,164	\$ -	\$ -	\$ -	\$ 316,349	\$ 5,000
2	Data Collection/ Development	\$ 20,000	\$ -	\$ 4,411	\$ -	\$ -	\$ -	\$ 24,411	\$ 10,000
3	Transportation Improvement Program (TIP)	\$ 20,000	\$ -	\$ 4,411	\$ -	\$ -	\$ -	\$ 24,411	\$ -
4	Long Range Planning	\$ 150,379	\$ -	\$ 33,167	\$ -	\$ -	\$ -	\$ 183,546	\$ 120,379
5	Special Projects and Systems Planning	\$ 67,000	\$ -	\$ 14,777	\$ -	\$ -	\$ -	\$ 81,777	\$ 17,000
6	Transit and Transportation Disadvantaged	\$ -	\$ 113,655	\$ -	\$ 14,207	\$ 14,207	\$ 26,915	\$ 168,984	\$ 110,625
7	Regional Coordination	\$ 30,000	\$ -	\$ 6,617	\$ -	\$ -	\$ -	\$ 36,617	\$ -
8	Locally Funded Activities	\$ -	\$ -	\$ -	\$ -	\$ 8,000	\$ -	\$ 8,000	\$ -
	Total fiscal year 2017/18 funds for all tasks	\$ 546,564	\$ 113,655	\$ 120,547	\$ 14,207	\$ 22,207	\$ 26,915	\$ 844,095	\$ -
	Total De-obligation from prior fiscal years	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Total cost, including carryover, for all tasks	\$ 546,564	\$ 113,655	\$ 120,547	\$ 14,207	\$ 22,207	\$ 26,915	\$ 844,095	\$ 263,004

	FHWA PL	FDOT	FTA 5305	TD Trust	Collier Co.	Naples	Everglades	Marco Is.	Total
State Support/Match for MPO (1)	\$ -	\$ 120,547	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 120,547
State and Local Support for FTA Program (2)	\$ -	\$ 14,207	\$ -	\$ -	\$ 8,879	\$ 3,552	\$ -	\$ 1,776	\$ 28,414
FY 2019/20 Funding	\$ 546,564	\$ -	\$ 113,655	\$ 26,915	\$ -	\$ -	\$ -	\$ -	\$ 687,134
FY 2019/20 Local Funding	\$ -	\$ -	\$ -	\$ -	\$ 5,000	\$ 2,000	\$ -	\$ 1,000	\$ 8,000
5305 Carryover	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
PL Roll Forward from Prior Fiscal Years	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Close-Out from FY 2017/18	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total cost, including carryover, for all tasks	\$ 546,564	\$ 134,754	\$ 113,655	\$ 26,915	\$ 13,879	\$ 5,552	\$ -	\$ 2,776	\$ 844,095

- (1) For FY 2019/2020, FDOT will "soft match" the MPP/PL Funds using toll revenue expenditures as a credit toward the non-Federal matching share.
The amount identified on this line represent the amount of "soft match" required (both State and local) for the amount of Federal PL section 112 funds requested in this UPWP.
- (2) This amount identified on this line represents the amount of FTA 5305 funding and the amount of local match (10%) required.



**TABLE 4
FUNDING SOURCE TABLE
FY 2017/18**

Task #	Task Description	FHWA PL	FDOT	TOTAL	FTA 5305 2019-20			State TD	Local	Total
		Federal	Soft Match	FEDERAL PL	Federal	State	Local	Trust	Funding	
1	Administration	\$ 259,185	\$ 57,164	\$ 259,185	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 316,349
2	Data Collection/Development	\$ 20,000	\$ 4,411	\$ 20,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 24,411
3	Transportation Improvement Program (TIP)	\$ 20,000	\$ 4,411	\$ 20,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 24,411
4	Long Range Planning	\$ 150,379	\$ 33,167	\$ 150,379	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 183,546
5	Special Projects and Systems Planning	\$ 67,000	\$ 14,777	\$ 67,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 81,777
6	Transit and Transportation Disadvantaged	\$ -	\$ -	\$ -	\$ 113,655	\$ 14,207	\$ 14,207	\$ 26,915	\$ -	\$ 168,984
7	Regional Coordination	\$ 30,000	\$ 6,617	\$ 30,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 36,617
8	Locally Funded Activities	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 8,000	\$ 8,000
	Total fiscal year 2017/18 funds for all tasks	\$ 546,564	\$ 120,547	\$ 546,564	\$ 113,655	\$ 14,207	\$ 14,207	\$ 26,915	\$ 8,000	\$ 844,095
Summary										
	State Support/Match for MPO	\$ -	\$ 120,547	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 120,547
	State and Local Support for FTA Program	\$ -	\$ -	\$ -	\$ -	\$ 14,207	\$ 14,207	\$ -	\$ -	\$ 28,414
	FY 2019/20 Funding	\$ 546,564	\$ -	\$ -	\$ 113,655	\$ -	\$ -	\$ 26,915	\$ -	\$ 687,134
	FY 2019/20 Local Funding	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 8,000	\$ 8,000
	PL Roll Forward from Prior Fiscal Year	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Total cost, including carryover, for all tasks	\$ 546,564	\$ 120,547	\$ -	\$ 113,655	\$ 14,207	\$ 14,207	\$ 26,915	\$ 8,000	\$ 844,095

T-4



TABLE 5

The Planning Factors listed below are priority themes for the FHWA, the FTA and the FDOT. The matrix identifies which of the Planning Factors and Emphasis Areas that will be considered in each of the UPWP Task activity.

	Administration	Data Collection	TIP Maintenance & Development	Long Range Planning	Special Projects & Systems Planning	Transit & Transportation Disadvantaged Planning	Regional Coordination	Locally Funded Activities
MAP -21 Federal Planning Factors								
1. Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency.			✓	✓	✓		✓	
2. Increase the safety of the transportation system for motorized and non-motorized users.		✓	✓	✓	✓		✓	
3. Increase the security of the transportation system for motorized and non-motorized users.		✓		✓	✓		✓	
4. Increase the accessibility and mobility of people and for freight.		✓		✓	✓	✓	✓	
5. Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns.	✓	✓	✓	✓	✓	✓	✓	✓
6. Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight.		✓		✓	✓	✓	✓	
7. Promote efficient system management and operation.		✓		✓	✓	✓	✓	
8. Improve the resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts of surface transportation.		✓	✓	✓	✓		✓	
FAST Planning Factors								
9. Enhance travel and tourism.			✓	✓	✓	✓	✓	✓
10. Emphasize the preservation of the existing transportation system.		✓	✓	✓				✓
FDOT Planning Emphasis Areas								
11. Rural Transportation Planning		✓	✓	✓	✓	✓	✓	
12. Transportation Performance Measures		✓	✓	✓	✓	✓	✓	
13. ACES (Automated/Connected/Electric/Shared-use) Vehicles		✓		✓				



APPENDIX A

FY 2018/19 & 2019/2020

FEDERAL PLANNING FACTORS AND FDOT'S PLANNING EMPHASIS AREAS (PEA)



Appendix ‘A’

Federal Planning Factors and FDOT Planning Emphasis Area (PEA) for FY 2018/2019 & 2019/2020

The FTA and FHWA have in the past identified PEAs annually to promote priority themes for consideration, as appropriate, in metropolitan and statewide Unified Planning Work Programs proposed for FTA and FHWA funding. SAFETEA-LU, MAP-21 and the subsequent rulemaking have specified eight specific planning factors that FTA and FHWA will use in determining MPO and UPWP compliance with federal and state requirements. These factors are:

1. Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency;
2. Increase the safety of the transportation system for motorized and non-motorized users;
3. Increase the security of the transportation system for motorized and non-motorized users;
4. Increase the accessibility and mobility of people and for freight;
5. Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns;
6. Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight;
7. Promote efficient system management and operation; and
8. Improve the resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts of transportation system.

In addition to the existing factors, the Fixing America’s Surface Transportation (FAST) Act added two planning factors:

1. Enhance travel and tourism.
2. Emphasize the preservation of the existing transportation system.

FDOT Planning Emphasis Areas

The Florida Department of Transportation Office of Policy Planning develops *Planning Emphasis Areas* on a two-year cycle in coordination with the development of Metropolitan Planning Organizations’ respective unified planning work programs. Emphasis areas set planning priorities, support the Florida Transportation Plan, and give importance to topic areas which MPOs are encouraged to address as they develop their planning programs. Implementation of the seven goals of the Florida Transportation Plan requires embracing innovation; extensive collaboration across jurisdictions, modes and disciplines; an emphasis on customer service; data and performance feedback; and strategic investments for the efficient and effective allocation of resources.

Metropolitan Planning Organizations should consider the following topics when updating their Unified Planning Work Plan.

Rural Transportation Planning

MAP-21 defined the structure and responsibilities of designated regional transportation planning organizations in federal regulations for the first time. Florida Statutes include several provisions that require coordination with local governments including those in rural areas. Some rural communities in Florida face significant development pressures and need transportation investments to handle growing populations and economic activities. Others simply struggle to maintain their existing transportation system and with providing services to a spread-out community. MPOs are encouraged to plan for and coordinate with rural governmental entities both within their planning boundaries as well as those areas outside of the current boundaries that are impacted by transportation movements between regions.

Transportation Performance Measures

FHWA has finalized six interrelated performance rules to implement the transportation performance measures framework established by MAP-21 and the FAST Act. Collectively, the rules address challenges facing the transportation system, including: improving safety maintaining the condition of the infrastructure, reducing traffic congestions, improving the efficiency of the system and freight movement protecting the environment, and reducing delays in project delivery. The rules established national performance measures. State DOTs and MPOs must establish targets for each measure. Planning documents will identify the strategies and investments used to reach the targets. Progress towards meeting the targets will be reported through new and existing mechanisms. MPOs need to account in their UPWP for the effort necessary to satisfy the federal requirements. As MPOs and Florida DOT venture into this first round of target setting and adopting performance measures into our planning products, more emphasis will be placed on this topic area. The cooperative efforts of Florida's MPOs and DOT to insure this new planning tool will be effective and well-coordinated will need to be shown in the upcoming UPWPs.

ACES (Automated/Connected/Electric/Shared-use) Vehicles

According to the Federal Highway Administration, "Transportation is in the midst of disruptive change from new technologies (automated and connected vehicles); new institutions (shared mobility firms); and changing attitudes (reduced car ownership). Across the nation transportation planners are under pressure to develop performance-oriented policies, plans, and investment decisions that consider an increasingly complex transportation landscape. In the process, planners need to consider, but cannot yet reliably predict, the potential impact of disruptive and transformational Connected Vehicle (CV) and Automated Vehicle (AV) technologies on safety, vehicle ownership, road capacity, VMT, land-use, roadway design, future investment demands, and economic development, among others. While some forms of CV and AV are already being deployed across the United States, significant unknowns exist regarding the rate of technology adoption, which types of technologies will prevail in the marketplace, the interaction between CV/AV vehicles and various forms of shared mobility services, and the impacts of interim and widespread levels of CV/ AV usage."

Adopting and supporting innovative technologies and business practices supports all seven goals of the Florida Transportation Plan and the federal planning factors found in the FAST Act. ACES may lead to great improvements in safety, transportation choices, and quality of life for Floridians, our visitors and the Florida economy. Though there is a great deal of speculation and uncertainty of the potential impacts these technologies will have, MPOs need to determine how best to address the challenges and opportunities presented to them by ACES vehicles.

APPENDIX B

FTA Grant Application

Attachment: Draft FY 2018/19-2019/20 UPWP (4983 : Review of Draft Fiscal Year 2018/19-2019/20 Unified Planning Work Program)



RESOLUTION 2018-**RESOLUTION OF THE COLLIER METROPOLITAN PLANNING ORGANIZATION AUTHORIZING THE FILING OF AN APPLICATION WITH THE U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL TRANSIT ADMINISTRATION, FOR A GRANT UNDER THE URBAN MASS TRANSIT TRANSPORTATION ACT OF 1964, AS AMENDED**

WHEREAS, federal transit laws, codified in sections of Titles 49 and 23, United States Code, authorize the Secretary of Transportation to make grants for a transportation program that emphasizes a multi-modal approach; and

WHEREAS, the contract for financial assistance will impose certain obligations upon the applicant, including the provision by it of the local share of the project costs in the program; and

WHEREAS, it is required by the U.S. Department of Transportation in accord with the provisions of the Title VI of the Civil Rights Act of 1964, as amended, that the applicant gives an assurance that it will comply with Title VI of the Civil Rights act of 1964 and the U.S. Department of Transportation requirements there under; and

WHEREAS, it is the desired goal of the applicant that disadvantaged business enterprises be utilized to the fullest extent possible in connection with this project, and that definitive procedures shall be established and administered to ensure that disadvantaged business shall have the maximum feasible opportunity to compete for contracts and purchase orders when procuring construction contracts, supplies, equipment contracts, or consultant and other services; and

WHEREAS, the total project allocation is attributed to an 80% share from the Federal Transit Administration and a 10% share from local funds for the planning grant provided in a cash match by the Collier Metropolitan Planning Organization and a 10% match provided in cash by the Florida Department of Transportation;

NOW, THEREFORE BE IT RESOLVED by the Collier Metropolitan Planning Organization (MPO):

1. That the MPO Chairperson is authorized to execute and file an application on behalf of the Collier Metropolitan Planning Organization with the U.S. Department of Transportation, through the Florida Department of Transportation, to aid in the financing of planning projects pursuant to Section 5305 (d) of the Urban Mass Transportation Act of 1964, as amended.
2. That the MPO Chairperson is authorized to execute and file with such applications an assurance or any other document required by the U.S. Department of Transportation and/or the Florida Department of Transportation effectuating the purpose of this grant including Title VI of the Civil Rights Act of 1964.
3. That the MPO Chairperson is authorized to execute and file a Joint Participation Agreement (JPA) between the Collier Metropolitan Planning Organization and the Florida Department of Transportation for receipt of the federal funds and state cash match upon presentation to the MPO Board.

RESOLUTION 2018-

Page Two

- 4. That the MPO Director or staff designee is authorized to amend the FTA 5305(d) application, project budget and corresponding Unified Planning Work Program pages related to the 5305(d) allocation including but not limited to the Task, Sub-Task, Financial Tables, Funding Source Tables and Agency Tables should the total funding allocated to Collier County deviate from the amount applied for.
- 5. That the MPO Director or staff designee is authorized to furnish such additional information as the U.S. Department of Transportation and/or the Florida Department of Transportation may require in connection with the application and/or the project.

This Resolution PASSED and duly adopted by the Collier Metropolitan Planning Organization after majority vote on this 11th day of May 2018.

COLLIER METROPOLITAN
PLANNING ORGANIZATION

ATTEST: _____
Anne McLaughlin
MPO Executive Director

By: _____
Commissioner William L. McDaniel, Jr.
MPO Chair

Approved as to form and legality:

Scott Teach
DEPUTY COUNTY ATTORNEY



Attachment: Draft FY 2018/19-2019/20 UPWP (4983 : Review of Draft Fiscal Year 2018/19-2019/20 Unified Planning Work Program)

PROJECT DESCRIPTION FOR 2018/19-2019/20 FTA SECTION 5305(d) FUNDS

This application for FTA Section 5305(d) funds pertains to a study to be conducted by the Collier MPO staff in the 2018/19-2019/20 fiscal year.

A consultant to the MPO will prepare a major update to the Transit Development Plan. This plan was last adopted in 2015 and is scheduled to be updated in 2020. The update will ensure consistency with *the Florida Transportation Plan* and the *Florida Transportation Plan* in order to reflect changes in local policy direction and input gained from public involvement activities.

A consultant to the MPO will complete a Transit Impact Analysis. The purpose of this study is to understand the demand placed on the community's transit network by development, which is an important dimension of the overall transportation network that is often overlooked when assessing the impacts of development.

A consultant to the MPO will conduct a Park and Ride study. The intent of this analysis is to evaluate the fare box recovery for the fixed route and ADA services to ensure that any increase will not create a reduction in the use of the service.

In addition, a consultant to the MPO will complete the transit element of the 2045 Long Range Transportation Plan. The purpose of this study is to understand the demand placed on the community's transit network by development, which is an important dimension of the overall transportation network that is often overlooked when assessing the impacts of development.



[View Burden Statement](#)

OMB Number: 4040-0004
Expiration Date: 10/31/2019

Application for Federal Assistance SF-424

* 1. Type of Submission: <input type="checkbox"/> Preapplication <input checked="" type="checkbox"/> Application <input type="checkbox"/> Changed/Corrected Application		* 2. Type of Application: <input checked="" type="checkbox"/> New <input type="checkbox"/> Continuation <input type="checkbox"/> Revision		* If Revision, select appropriate letter(s): <input type="text"/> * Other (Specify): <input type="text"/>	
* 3. Date Received: <input type="text"/>		4. Applicant Identifier: <input type="text"/>			
5a. Federal Entity Identifier: <input type="text"/>			5b. Federal Award Identifier: FL-80-0009		
State Use Only:					
6. Date Received by State: <input type="text"/>		7. State Application Identifier: <input type="text"/>			
8. APPLICANT INFORMATION:					
* a. Legal Name: <input type="text" value="Collier Metropolitan Planning Organization"/>					
* b. Employer/Taxpayer Identification Number (EIN/TIN): <input type="text" value="59-6000558"/>			* c. Organizational DUNS: <input type="text"/>		
d. Address:					
* Street1: <input type="text" value="2885 South Horseshoe Drive"/>					
Street2: <input type="text"/>					
* City: <input type="text" value="Naples"/>					
County/Parish: <input type="text"/>					
* State: <input type="text" value="FL: Florida"/>					
Province: <input type="text"/>					
* Country: <input type="text" value="USA: UNITED STATES"/>					
* Zip / Postal Code: <input type="text" value="34104"/>					
e. Organizational Unit:					
Department Name: <input type="text" value="Collier MPO"/>			Division Name: <input type="text" value="Collier MPO"/>		
f. Name and contact information of person to be contacted on matters involving this application:					
Prefix: <input type="text"/>		* First Name: <input type="text" value="Anne"/>			
Middle Name: <input type="text"/>					
* Last Name: <input type="text" value="McLaughlin"/>					
Suffix: <input type="text"/>					
Title: <input type="text" value="Executive Director"/>					
Organizational Affiliation: <input type="text" value="MPO"/>					
* Telephone Number: <input type="text" value="239-252-5884"/>			Fax Number: <input type="text"/>		
* Email: <input type="text" value="AnneMcLaughlin@colliergov.net"/>					

Attachment: Draft FY 2018/19-2019/20 UPWP (4983 : Review of Draft Fiscal Year 2018/19-2019/20 Unified Planning Work Program)



Application for Federal Assistance SF-424	
<p>* 9. Type of Applicant 1: Select Applicant Type:</p> <p>X: Other (specify) <input type="text" value="Other (specify)"/></p> <p>Type of Applicant 2: Select Applicant Type: <input type="text"/></p> <p>Type of Applicant 3: Select Applicant Type: <input type="text"/></p> <p>* Other (specify): <input type="text" value="MPO"/></p>	
<p>* 10. Name of Federal Agency:</p> <p>Federal Transit Administration</p>	
<p>11. Catalog of Federal Domestic Assistance Number:</p> <p>20.505</p> <p>CFDA Title:</p> <p>Section 5305(d)</p>	
<p>* 12. Funding Opportunity Number:</p> <p>FL-80-009</p> <p>* Title:</p> <p>Metropolitan Transportation Planning</p>	
<p>13. Competition Identification Number:</p> <p>Not Applicable</p> <p>Title:</p> <p>Not Applicable</p>	
<p>14. Areas Affected by Project (Cities, Counties, States, etc.):</p> <p><input type="text"/></p> <p><input type="button" value="Add Attachment"/> <input type="button" value="Delete Attachment"/> <input type="button" value="View Attachment"/></p>	
<p>* 15. Descriptive Title of Applicant's Project:</p> <p>Support of transit planning activities identified in the 2018/19-2019/20 Unified Planning Work Program. This includes a transit impact analysis study, a park and ride study and a TDP major update.</p>	
<p>Attach supporting documents as specified in agency instructions.</p> <p><input type="button" value="Add Attachments"/> <input type="button" value="Delete Attachments"/> <input type="button" value="View Attachments"/></p>	



Application for Federal Assistance SF-424	
16. Congressional Districts Of:	
* a. Applicant	14
* b. Program/Project	14
Attach an additional list of Program/Project Congressional Districts if needed.	
<input type="text"/> <input type="button" value="Add Attachment"/> <input type="button" value="Delete Attachment"/> <input type="button" value="View Attachment"/>	
17. Proposed Project:	
* a. Start Date:	10/01/2018
* b. End Date:	09/30/2019
18. Estimated Funding (\$):	
* a. Federal	113,655.00
* b. Applicant	
* c. State	14,207.00
* d. Local	14,207.00
* e. Other	
* f. Program Income	
* g. TOTAL	142,069.00
* 19. Is Application Subject to Review By State Under Executive Order 12372 Process?	
<input type="checkbox"/> a. This application was made available to the State under the Executive Order 12372 Process for review on <input type="text"/> .	
<input type="checkbox"/> b. Program is subject to E.O. 12372 but has not been selected by the State for review.	
<input checked="" type="checkbox"/> c. Program is not covered by E.O. 12372.	
* 20. Is the Applicant Delinquent On Any Federal Debt? (If "Yes," provide explanation in attachment.)	
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
If "Yes", provide explanation and attach	
<input type="text"/> <input type="button" value="Add Attachment"/> <input type="button" value="Delete Attachment"/> <input type="button" value="View Attachment"/>	
21. *By signing this application, I certify (1) to the statements contained in the list of certifications** and (2) that the statements herein are true, complete and accurate to the best of my knowledge. I also provide the required assurances** and agree to comply with any resulting terms if I accept an award. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties. (U.S. Code, Title 218, Section 1001)	
<input checked="" type="checkbox"/> ** I AGREE	
<small>** The list of certifications and assurances, or an internet site where you may obtain this list, is contained in the announcement or agency specific instructions.</small>	
Authorized Representative:	
Prefix:	Mr. <input type="text"/> * First Name: William
Middle Name:	L. <input type="text"/>
* Last Name:	McDaniel
Suffix:	Jr. <input type="text"/>
* Title:	MPO Chair
* Telephone Number:	239-252-8192 Fax Number: <input type="text"/>
* Email:	AnneMcLaughlin@colliergov.net
* Signature of Authorized Representative:	<input type="text"/> * Date Signed: <input type="text"/>

Attachment: Draft FY 2018/19-2019/20 UPWP (4983 : Review of Draft Fiscal Year 2018/19-2019/20 Unified Planning Work Program)



Section 5305(d)
GMIS PLANNING LINE ITEM CODES – FFY 2018-19
 (FTA Funds Only)

Technical Classifications:	ITEM	FTA Funds
	44.21.00 Program Support and Administration	\$26,742
	44.22.00 General Development and Comprehensive Planning	\$13,371
	44.23.01 Long Range Transportation - System Level	\$6,686
	44.23.02 Long Range Transportation - Project Level	\$6,686
	44.24.00 Short Range Transportation Planning	\$13,371
	44.25.00 Transportation Improvement Program	\$6,686
	44.26.00 Planning Emphasis Areas	\$6,686
	44.26.12 Coordination of Non-Emergency Human Service Transportation	\$13,371
	44.26.13 Participation of Transit Operators in Metropolitan Planning	
	44.26.14 Planning for Transit Systems Management / Operations to Increase Ridership	
	44.26.15 Support Transit Capital Investment Decisions through Effective Systems Planning	
	44.26.16 Incorporating Safety & Security in Transportation Planning	\$6,686
	44.27.00 Other Activities	\$13,371
	TOTAL NET PROJECT COST	\$113,655
 ACCOUNTING CODE NUMBER		
	44.30.01 Personnel	\$14,848
	44.30.02 Fringe Benefits	\$4,416
	44.30.03 Travel	\$1,600
	44.30.04 Equipment	\$0
	44.30.05 Supplies	\$800
	44.30.06 Contractual	\$91,911
	44.30.07 Other	\$900
	44.30.08 Indirect Charges	\$0
	TOTAL NET PROJECT COST	\$113,655
 FUND CODE NUMBER		
	44.40.01 MPO Activities	\$113,655
	44.40.02 Transit Operator Activities	
	44.40.03 State and /or Local Agency Activities	
	TOTAL NET PROJECT COST	\$113,655



Section 5305(d)
Approved Project Budget for FFY 2018-19
 (Total Dollars)

TECHNICAL CLASSIFICATIONS:	ITEM	FTA Funds
44.21.00	Program Support and Administration	\$33,428
44.22.00	General Development and Comprehensive Planning	\$16,714
44.23.01	Long Range Transportation - System Level	\$8,357
44.23.02	Long Range Transportation - Project Level	\$8,357
44.24.00	Short Range Transportation Planning	\$16,714
44.25.00	Transportation Improvement Program	\$8,357
44.26.00	Planning Emphasis Areas	\$8,357
44.26.12	Coordination of Non-Emergency Human Service Transportation	\$16,714
44.26.13	Participation of Transit Operators in Metropolitan Planning	
44.26.14	Planning for Transit Systems Management / Operations to Increase Ridership	
44.26.15	Support Transit Capital Investment Decisions through Effective Systems Planning	
44.26.16	Incorporating Safety & Security in Transportation Planning	\$8,357
44.27.00	Other Activities	\$16,714
	TOTAL Net Project Cost	\$142,069
ACCOUNTING CODE NUMBER		
44.30.01	Personnel	\$18,560
44.30.02	Fringe Benefits	\$5,520
44.30.03	Travel	\$2,000
44.30.04	Equipment	\$0
44.30.05	Supplies	\$1,000
44.30.06	Contractual	\$114,889
44.30.07	Other	\$100
44.30.08	Indirect Charges	
	TOTAL Net Project Cost	\$142,069
FUND CODE NUMBER		
44.40.01	MPO Activities	\$142,069
44.40.02	Transit Operator Activities	\$0
44.40.03	State and/or Local Agency Activities	\$0
	TOTAL Net Project Cost	\$142,069
	Federal Share (80%)	\$113,655
	Local Share (20%)	\$28,414

Accounting Classification
91.37.08.8P-2

FPC
02

Description
Technical Studies - Planning



Section 5305(d)
GMIS PLANNING LINE ITEM CODES – FFY 2019-20
 (FTA Funds Only)

Technical Classifications:	ITEM	FTA Funds
	44.21.00 Program Support and Administration	\$26,742
	44.22.00 General Development and Comprehensive Planning	\$13,371
	44.23.01 Long Range Transportation - System Level	\$6,686
	44.23.02 Long Range Transportation - Project Level	\$6,686
	44.24.00 Short Range Transportation Planning	\$13,371
	44.25.00 Transportation Improvement Program	\$6,686
	44.26.00 Planning Emphasis Areas	\$6,686
	44.26.12 Coordination of Non-Emergency Human Service Transportation	\$13,371
	44.26.13 Participation of Transit Operators in Metropolitan Planning	
	44.26.14 Planning for Transit Systems Management / Operations to Increase Ridership	
	44.26.15 Support Transit Capital Investment Decisions through Effective Systems Planning	
	44.26.16 Incorporating Safety & Security in Transportation Planning	\$6,686
	44.27.00 Other Activities	\$13,371
	TOTAL NET PROJECT COST	\$113,655
ACCOUNTING CODE NUMBER		
	44.30.01 Personnel	\$14,848
	44.30.02 Fringe Benefits	\$4,416
	44.30.03 Travel	\$3,887
	44.30.04 Equipment	\$0
	44.30.05 Supplies	\$1,643
	44.30.06 Contractual	\$88,741
	44.30.07 Other	\$120
	44.30.08 Indirect Charges	\$0
	TOTAL NET PROJECT COST	\$113,655
FUND CODE NUMBER		
	44.40.01 MPO Activities	\$113,655
	44.40.02 Transit Operator Activities	
	44.40.03 State and /or Local Agency Activities	
	TOTAL NET PROJECT COST	\$113,655

Section 5305(d)
Approved Project Budget for FFY 2019-20
 (Total Dollars)

TECHNICAL CLASSIFICATIONS:

ITEM	FTA Funds
44.21.00 Program Support and Administration	\$33,428
44.22.00 General Development and Comprehensive Planning	\$16,714
44.23.01 Long Range Transportation - System Level	\$8,357
44.23.02 Long Range Transportation - Project Level	\$8,357
44.24.00 Short Range Transportation Planning	\$16,714
44.25.00 Transportation Improvement Program	\$8,357
44.26.00 Planning Emphasis Areas	\$8,357
44.26.12 Coordination of Non-Emergency Human Service Transportation	\$16,714
44.26.13 Participation of Transit Operators in Metropolitan Planning	
44.26.14 Planning for Transit Systems Management / Operations to Increase Ridership	
44.26.15 Support Transit Capital Investment Decisions through Effective Systems Planning	
44.26.16 Incorporating Safety & Security in Transportation Planning	\$8,357
44.27.00 Other Activities	\$16,714
TOTAL Net Project Cost	\$142,069

ACCOUNTING CODE NUMBER

44.30.01 Personnel	\$18,560
44.30.02 Fringe Benefits	\$5,520
44.30.03 Travel	\$4,859
44.30.04 Equipment	\$0
44.30.05 Supplies	\$2,055
44.30.06 Contractual	\$110,925
44.30.07 Other	\$150
44.30.08 Indirect Charges	
TOTAL Net Project Cost	\$142,069

FUND CODE NUMBER

44.40.01 MPO Activities	\$142,069
44.40.02 Transit Operator Activities	\$0
44.40.03 State and/or Local Agency Activities	\$0
TOTAL Net Project Cost	\$142,069

Federal Share (80%)	\$113,655
Local Share (20%)	\$28,414

Accounting Classification
 91.37.08.8P-2

FPC
 02

Description
 Technical Studies - Planning



FTA FISCAL YEAR 2018 CERTIFICATIONS AND ASSURANCES

FEDERAL FISCAL YEAR 2018 CERTIFICATIONS AND ASSURANCES FOR FEDERAL TRANSIT ADMINISTRATION ASSISTANCE PROGRAMS

(Signature page alternative to providing Certifications and Assurances in TEAM-Web)

Name of Applicant: Collier Metropolitan Planning Organization

The Applicant agrees to comply with applicable provisions of Categories 01 – 23. X

OR

The Applicant agrees to comply with applicable provisions of the Categories it has selected:

Table with 2 columns: Category, Description. Lists 23 categories with checkboxes for selection.



FTA FISCAL YEAR 2018 CERTIFICATIONS AND ASSURANCES

FEDERAL FISCAL YEAR 2018 FTA CERTIFICATIONS AND ASSURANCES SIGNATURE PAGE

(Required of all Applicants for federal assistance to be awarded by FTA and all FTA Grantees with an active Capital or Formula Award)

AFFIRMATION OF APPLICANT

Name of Applicant: Collier Metropolitan Planning Organization (MPO)

Name and Relationship of Authorized Representative: Commissioner William L. McDaniel, Jr., MPO Chair

BY SIGNING BELOW, on behalf of the Applicant, I declare that it has duly authorized me to make these Certifications and Assurances and bind its compliance. Thus, it agrees to comply with all federal laws, regulations, and requirements, follow applicable federal guidance, and comply with the Certifications and Assurances as indicated on the foregoing page applicable to each application its Authorized Representative makes to the Federal Transit Administration (FTA) in federal fiscal year 2017, irrespective of whether the individual that acted on his or her Applicant's behalf continues to represent it.

FTA intends that the Certifications and Assurances the Applicant selects on the other side of this document should apply to each Award for which it now seeks, or may later seek federal assistance to be awarded during federal fiscal year 2018.

The Applicant affirms the truthfulness and accuracy of the Certifications and Assurances it has selected in the statements submitted with this document and any other submission made to FTA, and acknowledges that the Program Fraud Civil Remedies Act of 1986, 31 U.S.C. § 3801 *et seq.*, and implementing U.S. DOT regulations, "Program Fraud Civil Remedies," 49 CFR part 31, apply to any certification, assurance or submission made to FTA. The criminal provisions of 18 U.S.C. § 1001 apply to any certification, assurance, or submission made in connection with a federal public transportation program authorized by 49 U.S.C. chapter 53 or any other statute

In signing this document, I declare under penalties of perjury that the foregoing Certifications and Assurances, and any other statements made by me on behalf of the Applicant are true and accurate.

Signature _____ Date: _____
 Name Commissioner William L. McDaniel, Jr., MPO Chair
 Authorized Representative of Applicant

AFFIRMATION OF APPLICANT'S ATTORNEY

For (Name of Applicant): Collier Metropolitan Planning Organization (MPO)

As the undersigned Attorney for the above named Applicant, I hereby affirm to the Applicant that it has authority under state, local, or tribal government law, as applicable, to make and comply with the Certifications and Assurances as indicated on the foregoing pages. I further affirm that, in my opinion, the Certifications and Assurances have been legally made and constitute legal and binding obligations on it.

I further affirm that, to the best of my knowledge, there is no legislation or litigation pending or imminent that might adversely affect the validity of these Certifications and Assurances, or of the performance of its FTA assisted Award.

Signature _____ Date: _____
 Name Scott R. Teach, Deputy County Attorney
 Attorney for Applicant

Each Applicant for federal assistance to be awarded by FTA and each FTA Recipient with an active Capital or Formula Project or Award must provide an Affirmation of Applicant's Attorney pertaining to the Applicant's legal capacity. The Applicant may enter its electronic signature in lieu of the Attorney's signature within FTA's electronic award and management system, provided the Applicant has on file and uploaded to FTA's electronic award and management system this hard-copy Affirmation, signed by the attorney and dated this federal fiscal year.



APPENDIX C

RESPONSE TO COMMENTS - FHWA

Attachment: Draft FY 2018/19-2019/20 UPWP (4983 : Review of Draft Fiscal Year 2018/19-2019/20 Unified Planning Work Program)



FHWA Comments and MPO Responses

Attachment: Draft FY 2018/19-2019/20 UPWP (4983 : Review of Draft Fiscal Year 2018/19-2019/20 Unified Planning Work Program)



APPENDIX D

Response to Comments – FDOT

Attachment: Draft FY 2018/19-2019/20 UPWP (4983 : Review of Draft Fiscal Year 2018/19-2019/20 Unified Planning Work Program)



FDOT Comments and MPO Responses

General Comments:

Specific Comments:



APPENDIX E

Response to Comments – Board and Advisory Committee Members

Attachment: Draft FY 2018/19-2019/20 UPWP (4983 : Review of Draft Fiscal Year 2018/19-2019/20 Unified Planning Work Program)



Comments received from the TAC

No comments received.

Comments received from the CAC

No comments received.

Comments received from the MPO Board

No comments received.



APPENDIX F

Response to Comments –Public

Attachment: Draft FY 2018/19-2019/20 UPWP (4983 : Review of Draft Fiscal Year 2018/19-2019/20 Unified Planning Work Program)



Comments received from the Public

No comments received.



APPENDIX G

Planning Studies in the MPO Area

Attachment: Draft FY 2018/19-2019/20 UPWP (4983 : Review of Draft Fiscal Year 2018/19-2019/20 Unified Planning Work Program)



PLANNING STUDIES IN THE MPO AREA

This list is compiled and/or updated by the Collier MPO staff for the purposes of regional planning. It is included here for reference.

SR 29 (in Collier County) – This is a PD&E study that looked at several alternatives to provide more capacity through Immokalee. An alternative has been endorsed by the MPO Board but the PD&E has not been approved by FHWA. This project has been going on since 2007. The Collier MPO 2040 Needs Plan and Cost Feasible Plan include this project.

Old US 41 (Lee/Collier County)– FDOT will be completing a PD&E study to evaluate alternatives for capacity and sidewalk improvements.

Triangle Blvd. Traffic Study – Collier County recently completed this study which analyzed the traffic impacts and improvement concepts on Triangle Blvd. between US41 and SR951 (Collier Blvd.).

Pine Ridge Road Corridor Congestion Study – Pine Ridge Road between Livingston Road and I-75 was identified as having a level of service “F”, failing, in the 2016 and 2017 Annual Update and Inventory Reports (AUIRs). Collier County began the Corridor Congestion Study to identify existing and future conditions in the corridor, to develop and evaluate options to relieve the congestion, to engage the public in presenting the study findings and take input, and to develop recommendations to guide decision-makers in advancing future improvements. The recommendations of the study included several innovative intersection improvements and design concepts which will be presented to the Board of County Commissioners (BCC) for approval. Ultimately, the County will pursue preliminary engineering and environmental assessment to further evaluate the design features, right-of-way needs, and costs of the chosen concept for the intersection of Pine Ridge Road and Livingston Road. The additional intersections at Whipoorwill Lane and I-75 are within Limited Access Right-of-Way Limits. The County will pursue an Interchange Modification Report (IMR) with FDOT for the intersections in that portion of the corridor.

Randall Boulevard/Oil Well Road Study – This study surrounds the Randall Boulevard and Oil Well Road corridors and it is intended that this study clearly define the most appropriate corridor for needed multi-lane improvements to facilitate east-west travel. Collier County is currently studying the corridors and will be considering several alternatives to provide more capacity for the area.

Green Boulevard Extension/ North Belle Meade Study – Collier County has not commenced this study, but it is intended to evaluate the area that extends eastward from CR – 951 to surround the North Belle Meade area from Golden Gate Estates to I-75 and eastward to Everglades Boulevard. The purpose of this study is to more clearly define the future collector roadway network in this area. Several east-west and north-south needs-based corridors have been identified that would enhance circulation throughout the area. The study effort would include determining the feasibility and preferred alignment for the identified corridors or alternatives that may be developed during the study.

CR951 Congestion Relief Study – Collier County has not commenced this study, but it is intended to identify an alternative travel route to the existing CR951 corridor due to forecasted high congestion levels by 2040. The study area extends from CR951 to City Gate North Boulevard to Benfield Road on its eastern limits to US41 at its southern limits. The limits of this study area are subject to change. The study will consider multiple travel routes, improvements to CR951, a no-build option, and evaluate other alternative planning strategies to alleviate future congestion on CR951.

Transportation System Performance Report - This report will be prepared to provide a thorough system assessment in order to identify where priority investments should be made. The report will begin in 2018 and will be completed by March of 2020.

CAT Transit Development Plan (TDP) – The major update is due in September 2020. The update is programmed to begin with the next fiscal year. The 2018 TDP Minor Update is due September 2018 and will be completed by Collier County PTNE staff.

Park and Ride Study – This study will identify sites for park and ride locations for CAT. The study is expected to be completed in the fall of 2019.

Transit Impact Analysis – This study is intended to help understand the demand placed on the community’s transit network by development. It is expected to begin by the summer of 2018.



Transportation Disadvantaged Service Plan (TDSP in Collier County) – The 2018 TDSP Annual Update is due to the Commission for the Transportation Disadvantaged by July 1, 2018. The next major update to the TDSP must be completed by October 1, 2018. The update is expected to begin by March 2018.

Strategic Highway Safety Plan – The County Wide Strategic Highway Safety Plan was funded through the Congestion Management priority process. It is included in the TIP for funding in FY 18/19. The study will be managed by the MPO and completed by a consultant. Collier MPO staff, a consultant and the PAC updated the Comprehensive Pathway Plan in December 2012. An update will occur in 2016.



APPENDIX H

Certification and Statements and Assurances

FDOT has moved to a standalone certification process which includes execution of the annual statements and assurances. MPO staff is currently waiting for direction regarding including these items in the UPWP. If necessary, the documents will be added to this section upon execution.



EXECUTIVE SUMMARY

Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to Guilford Rd

OBJECTIVE: For the Board to receive a presentation on the Draft Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to Guilford Rd.

CONSIDERATIONS: The Florida Department of Transportation (FDOT) - District One Safety Office has retained HNTB Corporation as part of a District-wide Traffic Safety Project. FDOT had HNTB conduct additional studies (**Attachment 1**) in response to Collier County staff comments on FDOT's proposed implementation of some of the recommendations in the Pedestrian/Bicycle Safety Audit Road Safety Audit conducted in 2015 (**Attachment 2**). FDOT's PPT presentation is not available at the time of publication.

FDOT is coordinating with Collier County technical staff in order to incorporate a number of bicycle and pedestrian safety enhancements in the resurfacing project on US 41 from East of SR 84 (Davis Blvd) to Courthouse Shadows in the Draft Work Program for FY 2019-2023 (FPN 4380591).

COMMITTEE RECOMMENDATIONS: n/a

STAFF RECOMMENDATIONS: That the Board receive a presentation on the Draft Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to Guilford Rd

Prepared By: Anne McLaughlin, MPO Executive Director

ATTACHMENT(S)

1. Draft Arterial Safety Analysis Study (PDF)
2. 2015 FDOT Pedestrian/Bicycle Safety Audit (PDF)

03/09/2018

COLLIER COUNTY
Metropolitan Planning Organization

Item Number: 11.C**Doc ID:** 4984**Item Summary:** Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to Guilford Rd**Meeting Date:** 03/09/2018**Prepared by:**

Title: Planner, Senior – Metropolitan Planning Organization

Name: Brandy Otero

03/01/2018 10:03 AM

Submitted by:

Title: Executive Director - MPO – Metropolitan Planning Organization

Name: Anne McLaughlin

03/01/2018 10:03 AM

Approved By:**Review:**

Metropolitan Planning Organization	Brandy Otero	MPO Analyst Review	Completed	03/01/2018 10:03 AM
Metropolitan Planning Organization	Anne McLaughlin	MPO Executive Director Review	Completed	03/01/2018 10:24 AM
Metropolitan Planning Organization	Anne McLaughlin	Meeting Pending		03/09/2018 9:00 AM



DRAFT ARTERIAL SAFETY STUDY

**S.R. 90 (U.S. 41/TAMIAMI TRAIL E) FROM
COMMERCIAL DRIVE/PALM STREET TO
GUILFORD ROAD**

**COLLIER COUNTY
SECTION NO.: 03010000
MILEPOST: 13.208 - 14.974**

FM No. 409224-1-32-91
Contract No. C9M86

November 2017

PREPARED FOR
Florida Department of Transportation, District 1
Project Manager: Michael Kautz
801 N. Broadway Street
Bartow, Florida 33830

DRAFT ARTERIAL SAFETY STUDY

**S.R. 90 (U.S. 41/TAMIAMI TRAIL E) FROM COMMERCIAL DRIVE/
PALM STREET TO GUILFORD ROAD**

**COLLIER COUNTY
SECTION NO.: 03010000
MILEPOST: 13.208 - 14.974**

FM No. 409224-1-32-91
Contract No. C9M86

November 2017

PREPARED FOR

Florida Department of Transportation, District 1

Project Manager: Michael Kautz
801 N. Broadway Street
Bartow, Florida 33830



INTRODUCTION

The Florida Department of Transportation (FDOT) – District One Safety Office has retained HNTB Corporation as part of a District-Wide Traffic Safety Project to perform an Arterial Safety Study for the segment of S.R. 90 (U.S. 41/Tamiami Trail E) from Commercial Drive/Palm Street to Guilford Road in the city of Naples in Collier County, Florida.

EXISTING CONDITIONS

This section of the report describes the existing physical and operational conditions of S.R. 90 (U.S. 41/Tamiami Trail E) from Commercial Drive/Palm Street to Guilford Road.

S.R. 90 (U.S. 41/Tamiami Trail E) within the study limits is classified as an urban principal arterial roadway, which serves as an east-west corridor. Within the study area, S.R. 90 (U.S. 41/Tamiami Trail E) is characterized by two different typical sections. S.R. 90 (U.S. 41/Tamiami Trail E) from Commercial Drive/Palm Street to Espinal Boulevard/Courthouse Shadows has a six-lane divided, urban typical section with three 12-foot lanes westbound and three 11-foot lanes eastbound separated by a 25 to 27-foot wide raised, landscaped median and four-foot paved outside shoulders. S.R. 90 (U.S. 41/Tamiami Trail E) from Espinal Boulevard/Courthouse Shadows has a six-lane divided, suburban typical section with three 12-foot lanes in each direction, four to six-foot paved shoulders and a 32-foot wide raised, landscaped median. There is five-foot sidewalk and street lighting along both sides of S.R. 90 (U.S. 41/Tamiami Trail E) within the study corridor. However, there are no designated bicycle lanes provided.

Figure 1 shows the segment location in relation to the adjacent roadway system. This segment of S.R. 90 (U.S. 41/Tamiami Trail E) is approximately 1.766 miles long. The posted speed limit for S.R. 90 (U.S. 41/Tamiami Trail E) within the study limits is 45 mph. Land uses along this segment consist of commercial development frontage surrounded by residential development.

Within the study corridor, there are six signalized intersections, which are located at Commercial Drive/Palm Street, Shadowlawn Drive/Bayshore Drive, Airport Pulling Road/Peters Avenue (C.R. 31), Espinal Boulevard/Courthouse Shadows, Palm Drive, and Guilford Road. These intersections have pedestrian features, including crosswalks, pedestrian activated detectors, and countdown pedestrian signals. The intersection of S.R. 90 (U.S. 41 / Tamiami Trail E) and Shadowlawn Drive/Bayshore Drive is a designated school crossing for Shadowlawn Elementary School, which includes high emphasis crosswalks, advanced warning pavement markings, and school crossing signage.

Public transit along the study corridor is operated by Collier Area Transit (CAT), with nine bus stops that are served by one or more of the six routes (11, 13, 14, 17, 18 and 24) that provide service along the



study corridor. In addition, there is a CAT Transfer Center located at 3555 East Tamiami Trail in the Collier County Government Center, which allows passengers the opportunity to transfer from one route to another. **Appendix A** includes a condition diagram of the study area.

FIGURE 1 - STUDY LOCATION MAP



Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to



DATA COLLECTION

This section of the report presents the data that was obtained for this study. For the purposes of this study, it was determined that the following information would be required:

- Crash data from January 2011 through December 2015.
- Field observations of the segment operations during an average weekday.
- Vehicle count data from count station located within the study limits.
- Eight-hour turning movement counts at Commercial Drive/Palm Street, Shadowlawn Drive/Bayshore Drive, Airport Pulling Road/Peters Avenue (C.R. 31), Espinal Boulevard/Courthouse Shadows, Palm Drive and Guilford Road.
- *Pedestrian/Bicycle Safety Audit*, conducted by Cardno, Inc, in June 2015.
- Recently completed or future planned projects within the study limits.

Crash Data

Crash data was provided by the FDOT CARS Database and Signal 4 Analytics for the period extending between January 2011 and December 2015. Crash summaries for the period are presented in **Table 1**. Areas of concern are discussed in the Crash Analysis section of this report.

Traffic Volume Data

Traffic volume data on S.R. 90 (U.S. 41/Tamiami Trail E) was obtained from the Florida Department of Transportation's Florida Traffic Online 2016 Annual Average Daily Traffic Report. This website contains recent count data from the Department's count stations throughout the state. Within the project limits, there was one telemetered traffic monitoring site (Site 030094) identified. Site 030094 is located on S.R. 90 (U.S. 41/Tamiami Trail E) east of Espinal Boulevard/Courthouse Shadows and is reported to have an AADT of 42,286 with 2.9% truck traffic.

In addition, turning movement counts were performed at Commercial Drive/Palm Street, Shadowlawn Drive/Bayshore Drive, Airport Pulling Road/Peters Avenue (C.R. 31), Espinal Boulevard/Courthouse Shadows, Palm Drive and Guilford Road with the study limits. Pedestrian and bicycle count data was also collected at each of the six signalized intersections. This data was collected over a period of two average weekdays from Tuesday, June 6, 2017 to Wednesday, June 7, 2017, from 7:00 am to 10:00 am, 11:00 am to 1:00 pm, and 3:00 pm to 6:00 pm. The count data is summarized in **Appendix B** of this report.

At the Department's direction, the pedestrian and bicycle count data from the *Pedestrian/Bicyclist Safety Audit* was utilized in conjunction with our pedestrian and bicycle count data at the signalized intersections to understand the overall pedestrian and bicycle traffic volumes along the study corridor. Refer to



Appendix C for this report. The pedestrian and bicycle count data from the *Pedestrian/Bicyclist Safety Audit* was obtained over 11 consecutive hours in January 2015 on a weekday from 7:00 am to 6:00 pm. The January counts revealed that the following corridor segments had at least four hours of 15 or more crossings per hour (pedestrian and bicycle combined) across US 41:

- Between Pelton Avenue and Pineland Avenue
- Between McDonald's and Shadowlawn Drive
- Between Shadowlawn Drive and Bayside Street
- Between River Drive and Andrew Drive
- Between Andrew Drive and Palm Lake Mobile Home Park
- Between Palm Drive and Seminole Avenue
- Between Seminole Avenue and Enchantment Boulevard

Additional pedestrian and bicycle counts were conducted over a two-day period in March 2015 for the same 11-hour time period at the following locations:

- Between Pelton Avenue and Pineland Avenue
- Between River Drive and Andrew Drive
- Between Seminole Avenue and Enchantment Boulevard

Pavement Condition Surveys

The Department has an extensive program to measure the pavement conditions along each state road. The program consists of a yearly review of each roadway that measures the cracking of the roadway surface and the ride-ability of the roadway. A rating between 0 and 10 is assigned for each of these characteristics, and when a roadway falls below 6 in any category, then the roadway is added to the Department's/District's resurfacing needs list. The segments on the needs list are prioritized annually and added to the Department's work program, usually with scheduling occurring in the 3rd or 4th year of the five-year work program.

The Crack/Ride values along S.R. 90 (U.S. 41/Tamiami Trail E) for Section 03010000 are as follows:

- Milepost 13.039 - 14.385 were reported as 8.5 for the cracking and 7.8 for the ride
- Milepost 14.385 - 15.795 were reported as 10.0 for the cracking and 7.9 for the ride

These reviews were conducted in 2017, and the results indicate that the roadway surface was in good condition.

The Department's Materials and Research Laboratory conducts skid tests on each state roadway on a regular basis to measure the pavement's surface resistance. Each year, between 25-35 percent of the state roadways are tested, so that each roadway is tested a minimum of once every four years.



Skid Test results are reported as a Skid Number (SN), and if the SN is less than 31, then the roadway’s wet weather crashes are reviewed and any necessary remedial actions, such as a skid hazard elimination or resurfacing project, are identified.

The most recent skid tests for S.R. 90 (U.S. 41/Tamiami Trail E) within the study limits were conducted for Section 03010000, Milepost 13.037 - 16.224 on 05/10/2016 for the westbound and eastbound lanes. The SN was found to be above the threshold at 34 and 35, respectively.

Recently Completed/Future Projects

An investigation of the FDOT Work Program identified two projects occurred within the study limits. The first project was the ITS Surveillance System (FPID 430872-1), which involved the installation of arterial monitoring cameras along the section of S.R. 90 (U.S. 41/Tamiami Trail E) from MP 14.113 – 15.797, which was completed in May 2015. The other project (FPID 438059-1) involves resurfacing S.R. 90 (U.S. 41/Tamiami Trail E) from west of Frederick Street (MP 13.039) to east of Espinal Boulevard/Courthouse Shadows (MP 14.385). Pre-construction phase is currently underway for this project. There are no future planned projects identified in the FDOT Work Program for this segment.



CRASH ANALYSIS

Crash data was obtained from the Florida Department of Transportation for the period extending between January 2011 and December 2015. The collision data is summarized in **Table 1**.

According to the collision data, there have been 560 collisions reported along the corridor during this time period with the majority (82%) of the crashes occurring at the signalized intersections. A significant number of these crashes were rear ends, with 329 (59%) during the study period, followed by 71 (13%) sideswipes, 31 (6%) left turns, 30 (5%) angle, and 14 (3%) single vehicle crashes. Of the total crashes, 365 (65%) resulted in personal injury. Also, 168 (30%) occurred during wet road conditions and 99 (18%) occurred at night. There were three fatalities within this time period.

In addition, there were a total of 55 crashes involving pedestrians and bicyclists within the study limits with bicycle crashes being the prominent type. The distribution of the crash locations was relatively equal with 16 (29%) occurring at a signalized intersection, 14 (25%) occurring at a stop controlled side street, 13 (24%) occurring at a driveway and 12 (22%) occurring at midblock locations. Only five crashes did not result in an injury, and each of these crashes involved a bicyclist. Of the 50 total crashes that involved an injury, 41 (82%) crashes involved a bicyclist and 9 (18%) involved a pedestrian. In 2013, there was one fatality involving a bicyclist. Also, two (4%) crashes occurred during wet road conditions whereas 13 (24%) crashes occurred at night.

The average crash rate at the intersection was calculated to be 4.11 crashes/MVM, which is lower than the statewide average of 5.840 crashes/MVM for similar locations. However, it should be noted that the total number of crashes has increased every year since 2011 with the total number of crashes in 2015 being approximately 3.5 times those in 2011. Specifically, 22 crashes were identified (with four crashes involving a bicyclist) at the intersection of Shadowlawn Drive/Bayshore Drive, which occurred within the limits of the free flow right turn lane. The section of S.R. 90 (U.S. 41/Tamiami Trail) between Andrew Drive and Palm Lake Mobile Home Park had the highest concentration of pedestrian and bicycle crashes with 14, which accounts for 26% of the total pedestrian and bicycle crashes for this time period. Similarly, the section of S.R. 90 (U.S. 41/Tamiami Trail) between Spruce Street and Pine Street had 10 pedestrian and bicycle crashes for this same time period, representing an additional 18% of the total pedestrian and bicycle related crashes. The crash data is summarized in **Appendix D** of this report.



TABLE 1 – CRASH SUMMARY
S.R. 90 (U.S. 41/TAMIAMI TRAIL E) FROM COMMERCIAL DRIVE/PALM STREET
TO GUILFORD ROAD
JANUARY 2011 – DECEMBER 2015

COLLISION TYPE	2011	2012	2013	2014	2015	TOTAL
Rear End	23	40	88	86	92	329
Left Turn	2	0	5	10	14	31
Angle	3	5	5	6	11	30
Sideswipe	0	7	18	22	24	71
Right Turn	1	2	3	2	1	9
Head On	1	0	0	0	1	2
Run Off Road	0	0	1	1	1	3
Median Crossover	0	1	0	0	0	1
Overtaken	0	0	3	1	0	4
Backed Into	0	0	1	0	0	1
Collision w/ Tree	2	1	3	0	0	6
Collision w/ Pole	2	0	0	0	0	2
Collision w/ Sign	0	0	0	0	1	1
Collision w/ Object	0	0	0	2	0	2
Fell From Vehicle	0	1	0	0	0	1
Pedestrian/Bicycle	13	11	11	10	10	55
Other	0	2	0	2	8	12
Total	47	70	138	142	163	560
Fatal	0	0	1	0	2	3
Injury	32	31	40	45	44	192
Property Damage Only	15	39	97	97	117	365
Day	32	53	119	123	134	461
Night	15	17	19	19	29	99
Wet	5	9	123	17	14	168
Dry	42	61	15	125	149	392
Segment Crash Rate	1.72	2.57	5.06	5.21	5.98	4.11
Statewide Avg Crash Rate	4.538	4.857	6.004	6.267	7.536	5.840

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to



QUALITATIVE ASSESSMENT

The segment of S.R. 90 (U.S. 41/Tamiami Trail E) from Commercial Drive/Palm Street to Guilford Road was observed by a qualified engineer during a typical weekday to assess existing operating conditions. Refer to the Condition Diagrams (**Appendix A**), which illustrates the existing features along the study corridor.

Conflicts were observed along S.R. 90 (U.S. 41/Tamiami Trail E) when vehicles failed to yield to pedestrians and bicyclists in the crosswalks and at driveways. This type of conflict is especially a concern along this corridor because of its high level of pedestrian and bicycle activity, which appeared to be comprised of local residents utilizing these modes of travel for transportation instead of recreational purposes. The majority of the pedestrians and bicyclists were utilizing the sidewalk and paved shoulder, respectively. However, some bicyclists were observed traveling against the direction of traffic. Pedestrians and bicyclists were also observed crossing S.R. 90 (U.S. 41/Tamiami Trail E) at various locations throughout the study corridor typically at undesignated, mid-block crossings, especially at the directional median openings. Additional findings are illustrated in the pictures and described in the captions below.

- Vehicles failing to stop at the stop bar and blocking the crosswalk, and crosswalks not properly aligned with pedestrian curb ramps.





- A pedestrian crossing S.R. 90 (U.S. 41/Tamiami Trail E) at a directional median opening.



- Signal heads missing retro-reflective backplates.





- Yellow skip, guide stripe was documented at the intersection of Commercial Drive/Palm Street.



- Worn pavement markings were documented at Pineland Street.





- Substandard pedestrian curb ramp was identified at Espinal Boulevard/Courthouse Shadows.



- During the field review, flooded sidewalk was observed on the north side of the roadway between Espinal Boulevard/Courthouse Shadows and the Wal-Mart driveway.





- At Osceola Avenue, detectable warning surfaces and crosswalk pavement markings were observed missing.



- Right turn lanes missing pavement arrows were observed on the north side of the roadway between east of Palm Drive to Guilford Road.





OPERATIONAL ANALYSIS

Traffic operations for existing conditions were determined using the peak hour volumes along with Synchro (Version 8.0). The peak hour volumes and the intersection geometry were input into the software. Existing signal phasing and timing sheets obtained from Collier County were also entered into the Synchro software.

Intersection operational analyses were conducted for all intersections in the study area under existing and build conditions. The build condition reflects the geometry in the conceptual plans located in Appendix F. The signalized intersection analysis was conducted using the Synchro software (version 8.0) applying the procedures from the HCM.

Existing Conditions

Tables 2 and 3 summarize the results of the signalized intersection analyses for AM and PM peak hours under existing conditions. The results include approach delay, approach LOS, intersection delay and overall LOS for signalized intersections.

In addition, S.R. 90 (U.S. 41/Tamiami Trail E) corridor operational analysis were conducted using Synchro to identify the total travel time, arterial speed and arterial LOS for each of the segments between the intersections for the entire study area.

Tables 4 and 5 summarize the arterial LOS for S.R. 90 (U.S. 41/Tamiami Trail E) along the northbound and southbound directions for the AM and PM peak hours under existing conditions.

The following segments are operating at LOS E or F during the AM and PM peak hours:

- Between Espinal Boulevard and Airport Pulling Road (AM & PM)
- Between Guilford Road and Palm Drive (PM)

Based on the queuing analysis, queues from the through lanes extend past the left-turn storage lengths currently available along US 41 at the intersection Guilford Road causing starvation and storage blockage for the left-turn lanes.

Detailed Synchro output for the intersections analyses and arterial analyses are provided in **Appendix E**.



Table 2 – Existing Conditions Intersection Analysis (AM Peak)

Existing (AM)											
Corridor	Intersection	EB		WB		NB (US 41)		SB (US 41)		Overall Intersection	
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
S.R. 90 (U.S. 41/ Tamiami Trail E)	Commercial Drive	47.8	D	46.7	D	18.8	B	14.6	B	21.5	C
	Bayshore Drive	60.3	E	62.8	E	28.0	C	30.6	C	36.1	C
	Airport Pulling Road	70.1	E	58.0	E	8.7	A	27.5	C	23.1	C
	Espinal Boulevard	57.3	E	55.7	E	6.2	A	9.3	A	8.7	A
	Palm Drive	51.4	D	52.2	D	8.3	A	9.8	A	9.8	A
	Guilford Road	69.9	E	66.3	E	7.5	A	5.6	A	8.1	A

Table 3 – Existing Condition Intersection Analysis (PM Peak)

Existing (PM)											
Corridor	Intersection	EB		WB		NB (US 41)		SB (US 41)		Overall Intersection	
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
S.R. 90 (U.S. 41/ Tamiami Trail E)	Commercial Drive	75.4	E	82.9	F	15.0	B	15.5	B	22.8	C
	Bayshore Drive	63.6	E	74.7	E	31.8	C	32.7	C	39.8	D
	Airport Pulling Road	67.2	E	54.9	D	24.6	C	24.8	C	31.9	C
	Espinal Boulevard	54.3	D	62.5	E	7.3	A	7.1	A	11.4	B
	Palm Drive	37.8	D	39.1	D	40.2	D	14.7	B	24.7	C
	Guilford Road	52.5	D	69.8	E	14.9	B	4.4	A	11.6	B

Table 4 - Existing Conditions Arterial Operational Analyses (AM Peak)

Existing (AM)				
Corridor (Direction)	Cross Street	Travel Time (sec)	Arterial Speed (mph)	Arterial LOS
S.R. 90 (U.S. 41/ Tamiami Trail E) (NB)	Palm Drive	59.1	22/7	C
	Espinal Boulevard	32.9	25.8	C
	Airport Pulling Road	32.6	23.2	C
	Bayshore Drive	53.3	21.7	D
	Commercial Drive	66.7	33.3	B
S.R. 90 (U.S. 41/ Tamiami Trail E) (SB)	Bayshore Drive	77.4	28.7	B
	Airport Pulling Road	45.1	25.7	C
	Espinal Boulevard	31.9	23.7	C
	Palm Drive	29.4	28.9	B
	Guilford Road	40.5	33.1	B

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to



Table 5 - Existing Conditions Arterial Operational Analyses (PM Peak)

Existing (PM)				
Corridor (Direction)	Cross Street	Travel Time (sec)	Arterial Speed (mph)	Arterial LOS
S.R. 90 (U.S. 41/ Tamiami Trail E) (NB)	Palm Drive	70.9	18.9	D
	Espinal Boulevard	32.3	26.3	C
	Airport Pulling Road	40.9	18.5	D
	Bayshore Drive	62.1	18.6	D
	Commercial Drive	63.9	34.8	B
S.R. 90 (U.S. 41/ Tamiami Trail E) (SB)	Bayshore Drive	82.4	27.0	C
	Airport Pulling Road	44.5	26.0	C
	Espinal Boulevard	30.4	24.9	C
	Palm Drive	34.1	24.9	C
	Guilford Road	39.0	34.4	B

Build Conditions

Tables 6 and 7 summarize the results of the signalized intersection analyses for AM and PM peak hours under build conditions. The results include approach delay, approach LOS, intersection delay and overall LOS for signalized intersections.

In addition, S.R. 90 (U.S. 41/Tamiami Trail E) corridor operational analysis were conducted using Synchro to identify the total travel time, arterial speed and arterial LOS for each of the segments between the intersections for the entire study area.

Tables 8 and 9 summarize the arterial LOS for S.R. 90 (U.S. 41/Tamiami Trail E) along the northbound and southbound directions for the AM and PM peak hours under build conditions.

Based on the queuing analysis, queues from the through lanes extend past the left-turn storage lengths currently available along US 41 at the intersection Guilford Road causing starvation and storage blockage for the left-turn lanes.

Detailed Synchro output for the intersections analyses and arterial analyses are provided in Appendix E.

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to



Table 6 – Build Conditions Intersection Analysis (AM Peak)

Build (AM)											
Corridor	Intersection	EB		WB		NB (US 41)		SB (US 41)		Overall Intersection	
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
S.R. 90 (U.S. 41/ Tamiami Trail E)	Commercial Drive	47.8	D	46.7	D	18.8	B	14.6	B	21.5	C
	Bayshore Drive	60.3	E	62.8	E	28.4	C	30.6	C	36.3	D
	Airport Pulling Road	70.1	E	58.0	E	12.9	B	27.5	C	25.4	C
	Espinal Boulevard	57.3	E	55.7	E	9.6	A	9.3	A	11.0	B
	Palm Drive	63.2	E	65.1	E	13.9	B	7.5	A	13.1	B
	Guilford Road	69.9	E	66.3	E	7.5	A	2.9	A	7.4	A

Table 7 – Build Condition Intersection Analysis (PM Peak)

Build (PM)											
Corridor	Intersection	EB		WB		NB (US 41)		SB (US 41)		Overall Intersection	
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
S.R. 90 (U.S. 41/ Tamiami Trail E)	Commercial Drive	75.4	E	82.9	F	15.0	B	15.5	B	22.8	C
	Bayshore Drive	63.6	E	74.7	E	31.8	C	32.7	C	39.8	D
	Airport Pulling Road	67.2	E	54.9	D	24.6	C	24.8	C	31.9	C
	Espinal Boulevard	54.3	D	62.5	E	7.3	A	7.1	A	11.4	B
	Palm Drive	37.8	D	39.1	D	40.2	D	14.7	B	24.7	C
	Guilford Road	52.5	D	69.8	E	14.9	B	4.4	A	11.6	B

Table 8 - Build Conditions Arterial Operational Analyses (AM Peak)

Build (AM)				
Corridor (Direction)	Cross Street	Travel Time (sec)	Arterial Speed (mph)	Arterial LOS
S.R. 90 (U.S. 41/ Tamiami Trail E) (NB)	Palm Drive	50.4	26.6	C
	Espinal Boulevard	37.4	22.7	C
	Airport Pulling Road	34.7	21.8	D
	Bayshore Drive	54.6	21.2	D
	Commercial Drive	66.7	33.3	B
S.R. 90 (U.S. 41/ Tamiami Trail E) (SB)	Bayshore Drive	77.4	28.7	B
	Airport Pulling Road	45.1	25.7	C
	Espinal Boulevard	31.9	23.7	C
	Palm Drive	27.7	30.6	B
	Guilford Road	37.7	35.6	A

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to



Table 9 - Build Conditions Arterial Operational Analyses (PM Peak)

Build (PM)				
Corridor (Direction)	Cross Street	Travel Time (sec)	Arterial Speed (mph)	Arterial LOS
S.R. 90 (U.S. 41/ Tamiami Trail E) (NB)	Palm Drive	70.9	18.9	D
	Espinal Boulevard	32.3	26.3	C
	Airport Pulling Road	40.9	18.5	D
	Bayshore Drive	62.1	18.6	D
	Commercial Drive	63.9	34.8	B
S.R. 90 (U.S. 41/ Tamiami Trail E) (SB)	Bayshore Drive	82.4	27.0	C
	Airport Pulling Road	44.5	26.0	C
	Espinal Boulevard	30.4	24.9	C
	Palm Drive	34.1	24.9	C
	Guilford Road	39.0	34.4	B

The operational analysis of the existing and build conditions demonstrates that the changes in LOS, delay, and arterial speeds are negligible between each condition. Additionally, the build condition results in acceptable LOS for all intersections and roadway segment links.

NET PRESENT VALUE ANALYSIS

A net present value (NPV) analysis was performed for the recommended improvements of installing three pedestrian hybrid beacons, removing a slip ramp, adding reflective back plates to all signal heads at each of the signalized intersections within the study limits, and adding signing and pavement markings as shown in the recommendations. The procedures outlined in the Department’s *Highway Safety Improvement Program Guide* were used to determine the net present value. The average cost per crash of \$117,867 was used, as reported in the FDOT Plans Preparation Manual, Volume 1, Table 23.6.1, for a 6+ lane urban divided roadway and 6+ lane suburban divided roadway. A crash reduction factor of 15% was applied to all crashes that occurred at the intersections for the improvement of adding reflective back plates. A crash reduction factor of 59% was applied to all crashes that occurred at Bayshore Drive for the improvement of removing the slip ramp. A crash reduction factor of 29% was applied to all crashes that occurred at the intersections for the improvement of installing a pedestrian hybrid beacon for a midblock crosswalk at Pelton Street, Bamboo Drive and near Spruce Street.

The cost for the proposed upgrades is \$2,211,194.74 or \$162,743.93 annually. This estimate also includes contingency, design, construction support, maintenance of traffic, and mobilization costs.

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to



The proposed improvements provide the following net present value results:

- Number of crashes potentially reduced: total 560 over 5 years (152.18 annually)
- Annual Monetary Value of Benefits: \$9,934,689
- Annual Monetary Value of Cost: \$162,743.93
- **Benefit/Cost Ratio: 61.04**
- **Net Present Value: \$132,808,861.97**

The *Highway Safety Improvement Program Guide* states that a project can qualify for HSP funds provided that it addresses a key highway safety problem area from the Florida Strategic Highway Safety Plan and a net present value (NPV) greater than zero. The benefit/cost analysis and net present values are summarized in **Appendix H** of this report.



RECOMMENDATIONS

Based on the results of the data collection, crash analysis, qualitative assessment, operational assessment and engineering judgment, the following recommendations were developed:

Roadway

- Consider eliminating the free-flow right turn lane and reconstructing the return radius on the southeast corner of Shadowlawn Drive/Bayshore Drive.
- Consider eliminating the “slip ramp” associated with Peters Avenue and reconstructing the return radius on the southwest corner of the intersection. The “slip ramp” will be replaced with an 8-foot sidewalk.
- Consider reconstructing the return radius on the northwest (to eliminate the merge lane) and southeast corners of Espinal Boulevard/Courthouse Shadows.
- Consider installing a 7-foot buffered bicycle lane with 11-foot through lanes in accordance with Design Bulletin 14-17 where it can be accommodated or a 5-foot bicycle lane.
- Consider constructing a HAWK beacon and two-stage pedestrian crossing with pedestrian detector assemblies in the median, west of Spruce Street.
- Consider constructing a HAWK beacon and two-stage pedestrian crossing with pedestrian detector assemblies in the median on east side of Pelton Avenue.
- Consider constructing a HAWK beacon and two-stage pedestrian crossing with pedestrian detector assemblies in the median on west side of Bamboo Drive.
- Consider reconstructing pedestrian curb ramps to meet ADA standards at Commercial Drive/Palm Street, Shadowlawn Drive/Bayshore Drive, Airport Pulling Road/Peters Avenue, Espinal Boulevard/Courthouse Shadows, Palm Drive and Guilford Road along with the traffic separators where impacted to realign the crosswalks. Additional consideration for reconstructing the pedestrian curb ramps at Commercial Drive/Palm Street is to eliminate water ponding during heavy rain and to properly align with the crosswalks.
- Consider reconstructing sidewalk on the north side of the roadway from Espinal Boulevard/Courthouse Shadows to the Wal-Mart driveway where the sidewalk is flooded during a heavy rain.
- Consider placing or replacing all detectable warning surfaces at the pedestrian curb ramps within the study corridor.
- Consider constructing a concrete pad at the back of the sidewalk at each of the transit stops that do not have shelters to accommodate an accessible bench.



Signing and Pavement Marking

- Consider installing “RIGHT TURN ONLY” (R3-5R) signs on the following side streets where they are currently not provided: Spruce Street, Pine Street, Pelton Avenue, Andrew Drive, Bamboo Drive and Seminole Avenue.
- Consider installing “SCHOOL CROSSING” (S1-1) and “AHEAD” (W16-9) sign assembly, west of Bayside Street in the median and on the north side of the roadway.
- Consider installing “SCHOOL CROSSING” (S1-1), “AHEAD” (W16-9) and “ARROW SYMBOL” (W16-7P) sign assembly, west and east of Shadowlawn Drive/Bayshore Drive in the median and on the north side (westbound) and south side (eastbound) of the S.R. 90 (U.S. 41/Tamiami Trail E) as well as on the west (southbound) and east (northbound) sides Shadowlawn Drive/Bayshore Drive.
- Consider installing the traffic signal sign, “STOP HERE ON RED” (R10-6) at the following locations: Commercial Drive/Palm Street (north and south legs), Shadowlawn Drive/Bayshore Drive (north and south legs), Airport Pulling Road/Peters Avenue (north and south legs), Espinal Boulevard/Courthouse Shadows, Palm Drive (north leg) and Guilford Road (north and south legs).
- Consider installing the “KEEP RIGHT” (R4-7) and “OBJECT MARKER” (OM1-1) sign assembly within the median of S.R. 90 (U.S. 41/Tamiami Trail E) at all six of the signalized intersections.
- “RIDE WITH TRAFFIC” (R9-3CP) and “BIKE LANE” (R3-17) sign assembly with “BICYCLE WRONG WAY” (R5-1b) sign on the opposite side of the sign post (opposite direction of travel) at five intermediate locations on both the north and south side of the roadway within the study corridor, between signalized intersections.
- Consider installing the pedestrian warning signs, “TURNING VEHICLES YIELD TO PEDESTRIANS” (R10-15), on all approaches to the six signalized intersections with the exception of the east leg of Airport Pulling Road/Peters Avenue (where this sign is already provided).
- Consider replacing the yellow skip guide stripe with the white skip guide stripe at Commercial Drive/Palm Street.
- Consider replacing worn pavement markings at Spruce Street, Pelton Avenue, Pineland Street, and Bayside Street.
- Consider providing crosswalk markings at Osceola Avenue, where they are currently not provided.
- Consider replacing all standard crosswalks at the signalized intersections within the study corridor with high emphasis crosswalks per *FDOT Memo 01-12 for High Emphasis Crosswalk Markings*.
- Consider installing pavement markings for the right turn lanes between Palm Drive and Enchanting Boulevard (eastbound) as well as between east of Palm Drive to Guilford Road (westbound).



- Consider installing pavement markings (arrows) for the left turn lane at Seminole Avenue.
- Consider installing bicycle lane pavement markings per FDOT's *Standard Index 17347*.

Signal

- Consider removing the mast arm signal poles on the NE and SW corners of Shadowlawn Drive/Bayshore Drive, and replacing it with a new longer mast arm signal pole on the SW corner.
- Consider implementing a Leading Pedestrian Interval (LPI) at all six signalized intersections.
- Implement Rest in Walk and Pedestrian Recall on minor side street pedestrian phases (concurrent with major street traffic).
- Consider adjusting the signal timings (as necessary) to account for the modified intersection configurations.
- Consider separating pedestrian signals at the six signalized intersections where they are currently on shared poles.
- Consider switching the orientation of the pedestrian pushbuttons and signs so that they are properly oriented to the corresponding crosswalk as specified in FDOT's *Standard Index 17784*.
- Consider adding one signal head for every lane at the intersections of Commercial Drive/Palm Street, Airport Pulling Road/Peters Avenue, Palm Drive and Guilford Road.
- Consider installing retro-reflective backplates for each of the signal heads where they are currently not provided at the following signalized intersections: Commercial Drive/Palm Street, Airport Pulling Road/Peters Avenue, Espinal Boulevard/Courthouse Shadows, Palm Drive and Guilford Road.



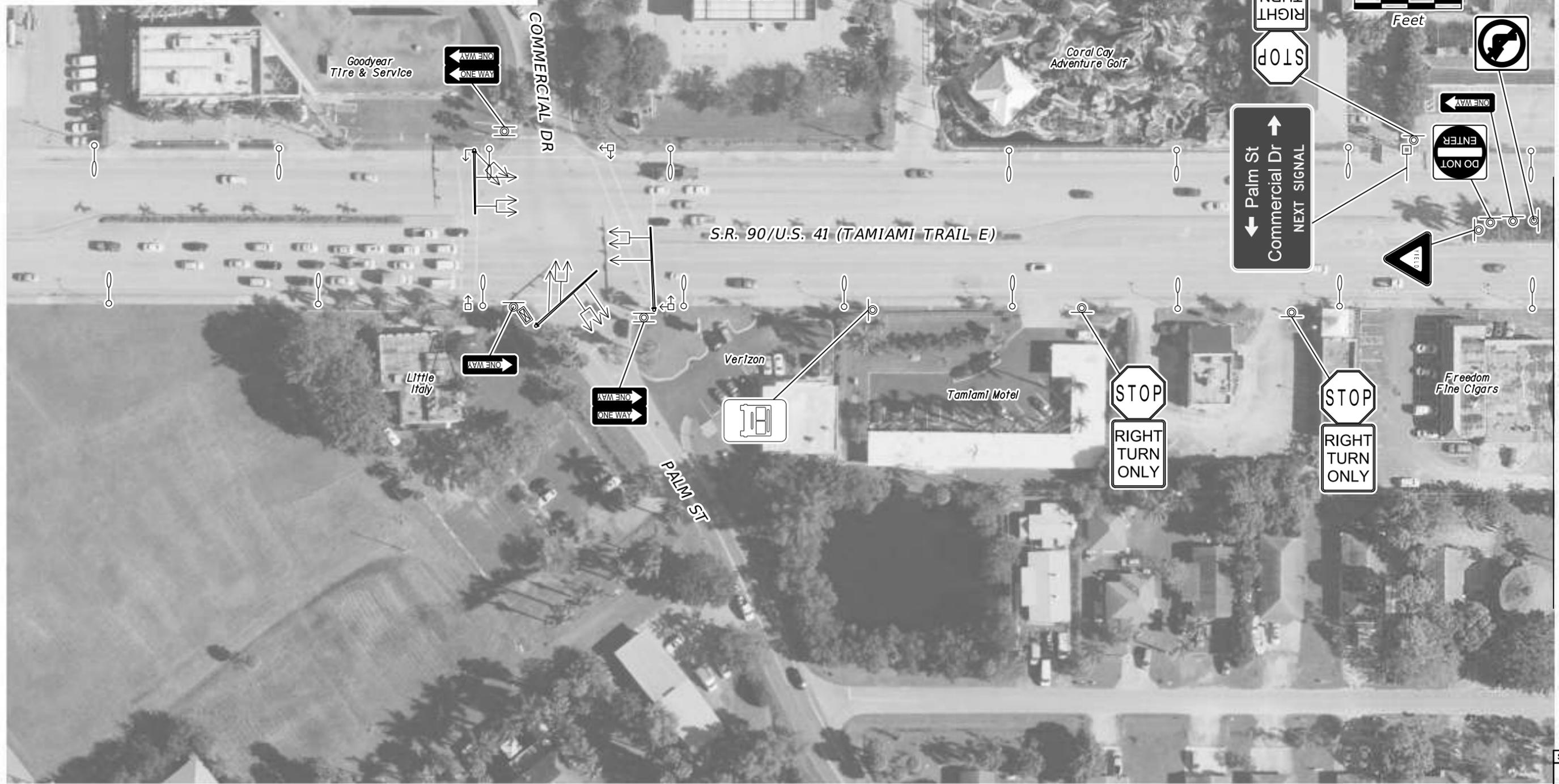
APPENDIX A

CONDITION DIAGRAM

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to

CONDITION DIAGRAM

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE 06/27/2017 PREPARED BY HNTB



MATCHLINE - SEE SHEET 2

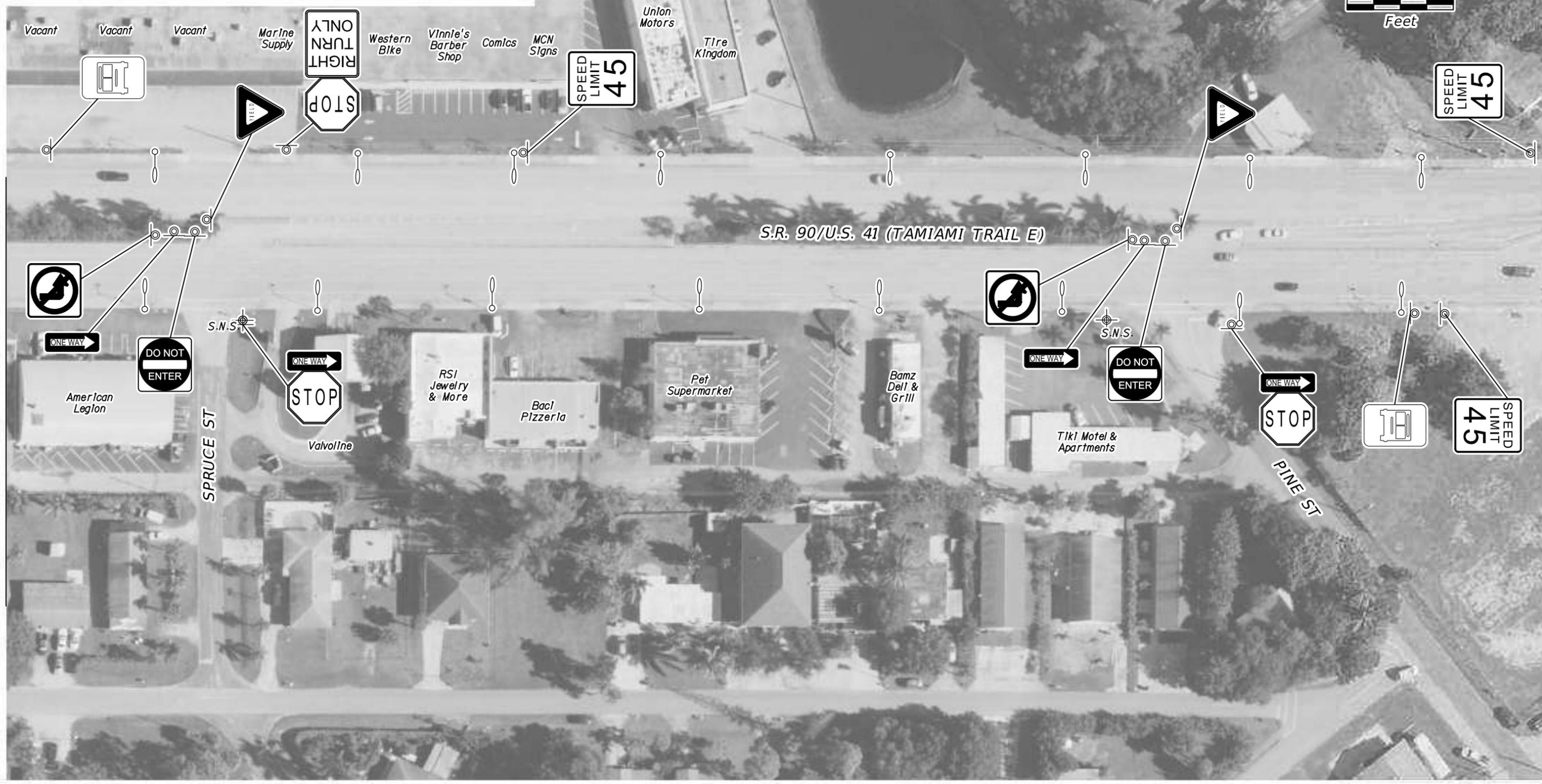
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	GUARDRAIL		HYDRANT		PED. SIGNAL PEDESTAL		SIGNAL MAST ARM		COMBINATION POLE		MULTI-POST SIGN
	BUILDING		STREET NAME SIGN		TRAFFIC SIGNAL PEDESTAL		SIGNAL HEAD		LIGHT POLE		OVERHEAD SIGN

CONDITION DIAGRAM

11.C.1

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE 06/27/2017 PREPARED BY HNTB



MATCHLINE - SEE SHEET 1

MATCHLINE - SEE SHEET 3



SHEET
2

SYMBOLS

FENCE	BUS STOP BENCH	CONTROLLER CABINET	SIGNAL STRAIN POLE	POWER POLE	SINGLE POST SIGN
GUARDRAIL	HYDRANT	PED. SIGNAL PEDESTAL	SIGNAL MAST ARM	COMBINATION POLE	MULTI-POST SIGN
BUILDING	STREET NAME SIGN	TRAFFIC SIGNAL PEDESTAL	SIGNAL HEAD	LIGHT POLE	OVERHEAD SIGN

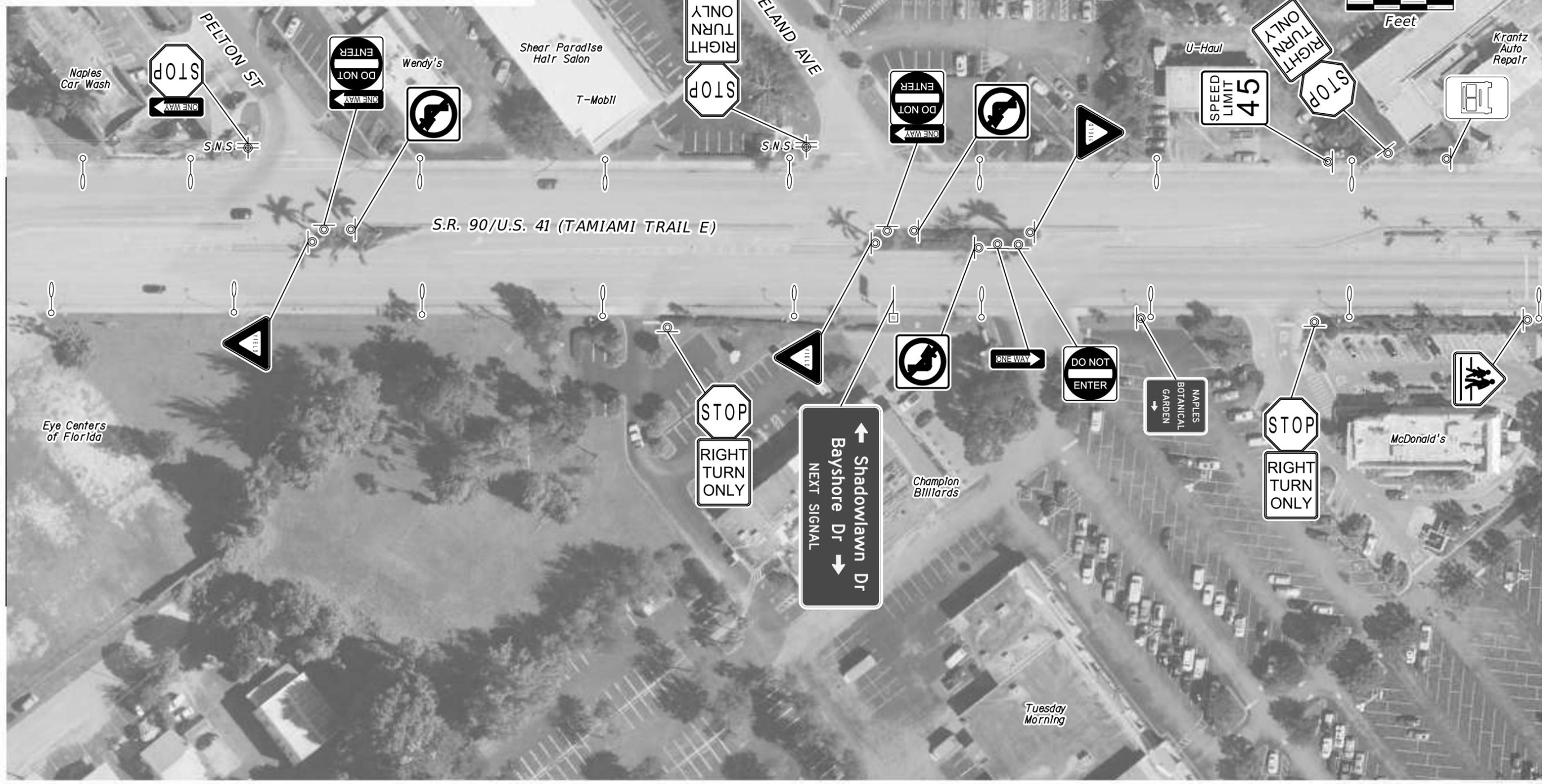
Packet Pg. 242

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm

CONDITION DIAGRAM

11.C.1

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE 06/27/2017 PREPARED BY HNTB



MATCHLINE - SEE SHEET 2

MATCHLINE - SEE SHEET 4

SHEET
3

SYMBOLS

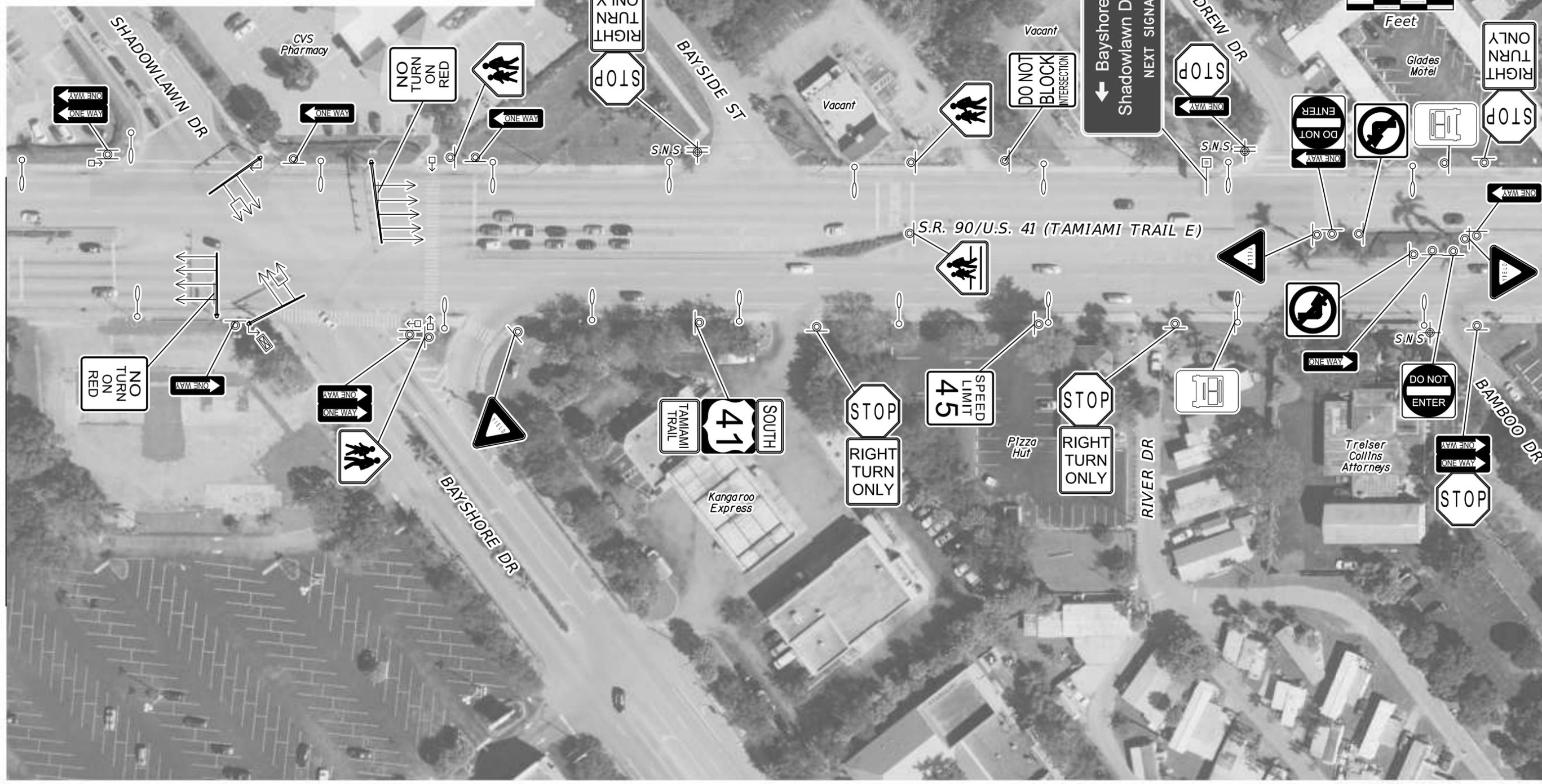
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	BUILDING		STREET NAME SIGN		TRAFFIC SIGNAL PEDESTAL		SIGNAL HEAD		LIGHT POLE		OVERHEAD SIGN

Packet Pg. 243

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm

CONDITION DIAGRAM

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE 06/27/2017 PREPARED BY HNTB



MATCHLINE - SEE SHEET 3

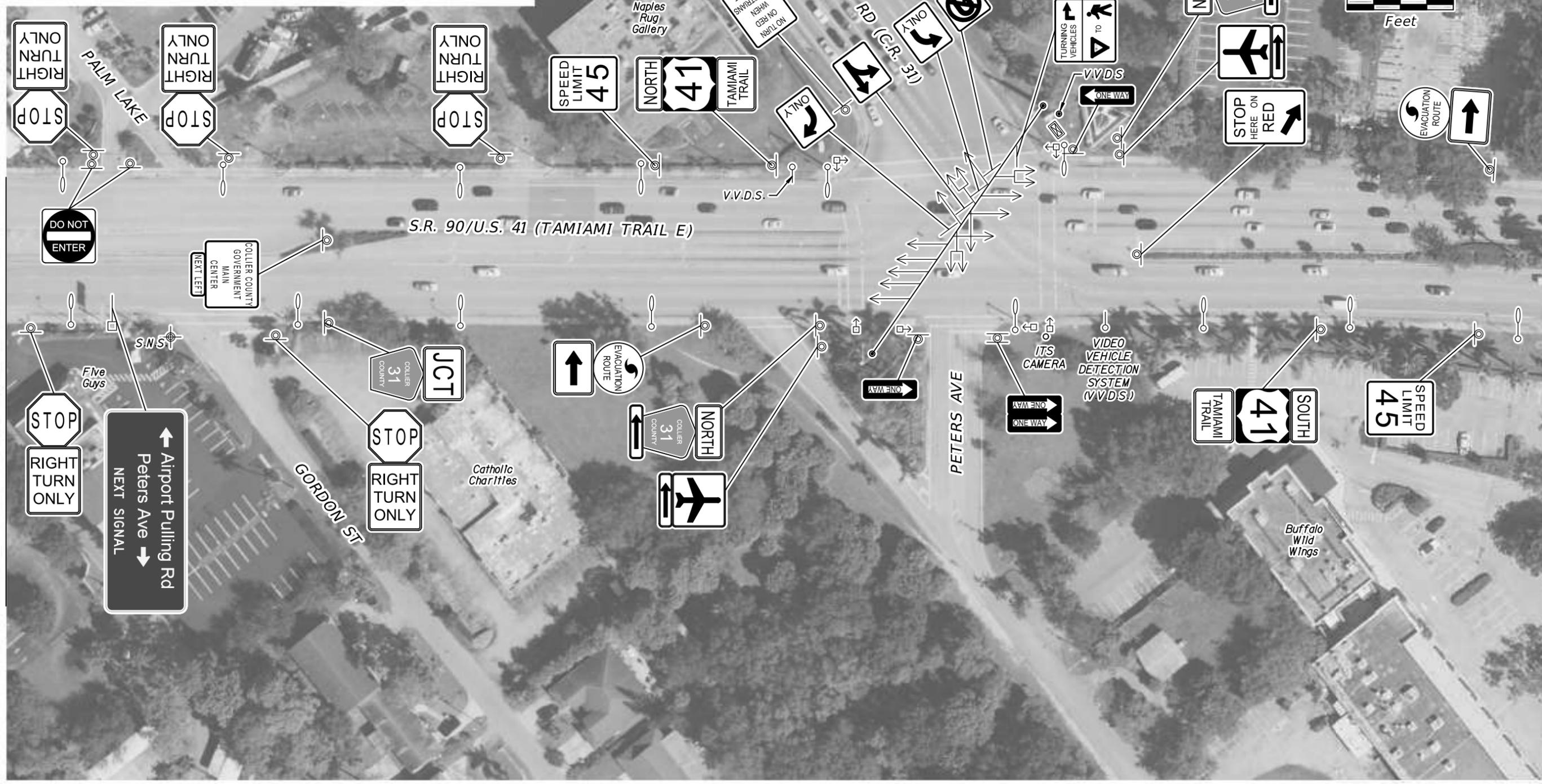
MATCHLINE - SEE SHEET 5

SYMBOLS

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	BUILDING		STREET NAME SIGN		TRAFFIC SIGNAL PEDESTAL		SIGNAL HEAD		LIGHT POLE		OVERHEAD SIGN

CONDITION DIAGRAM

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE 06/27/2017 PREPARED BY HNTB



MATCHLINE - SEE SHEET 4

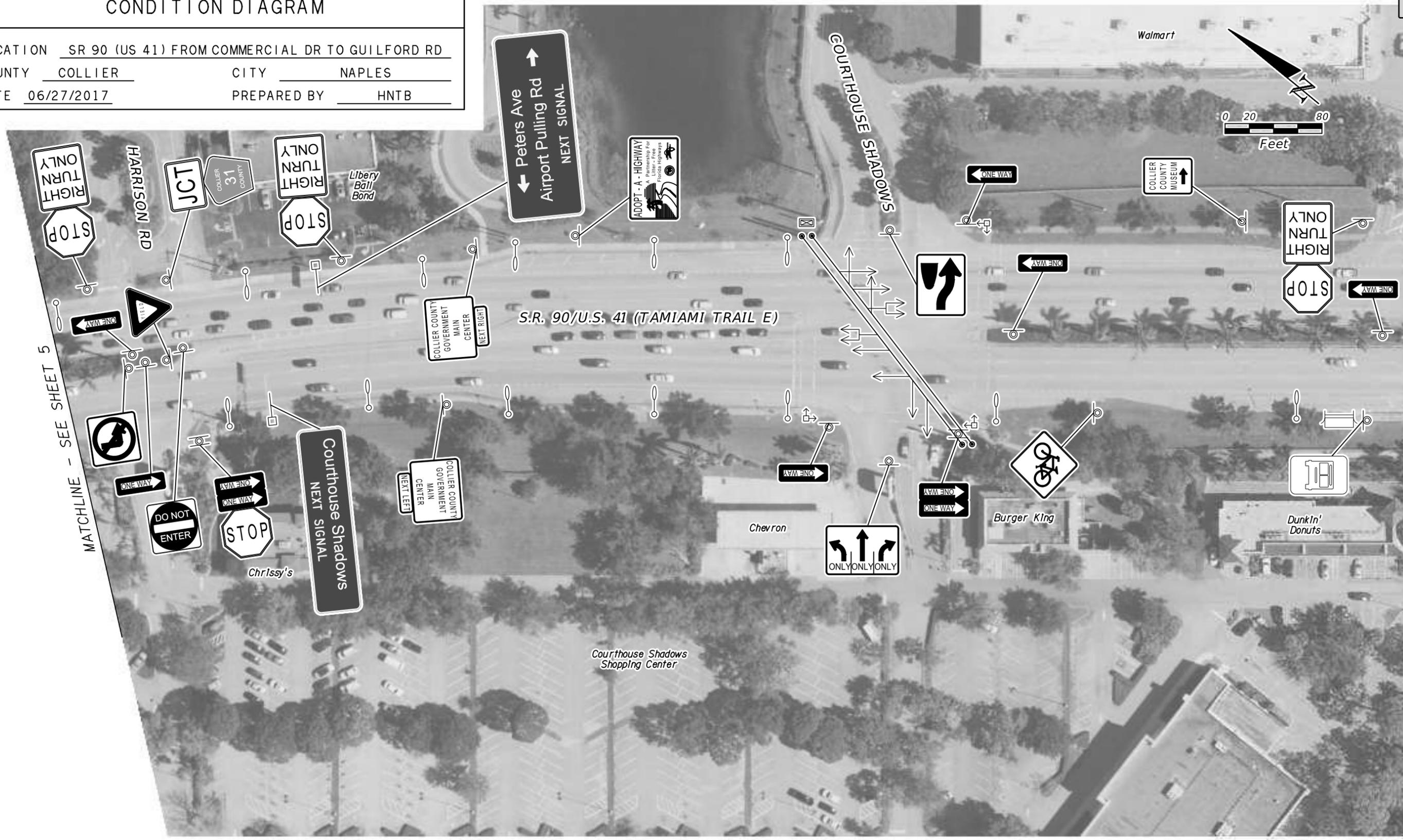
MATCHLINE - SEE SHEET 6

SYMBOLS

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	BUILDING		STREET NAME SIGN		TRAFFIC SIGNAL PEDESTAL		SIGNAL HEAD		LIGHT POLE		OVERHEAD SIGN

CONDITION DIAGRAM

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE 06/27/2017 PREPARED BY HNTB



SYMBOLS

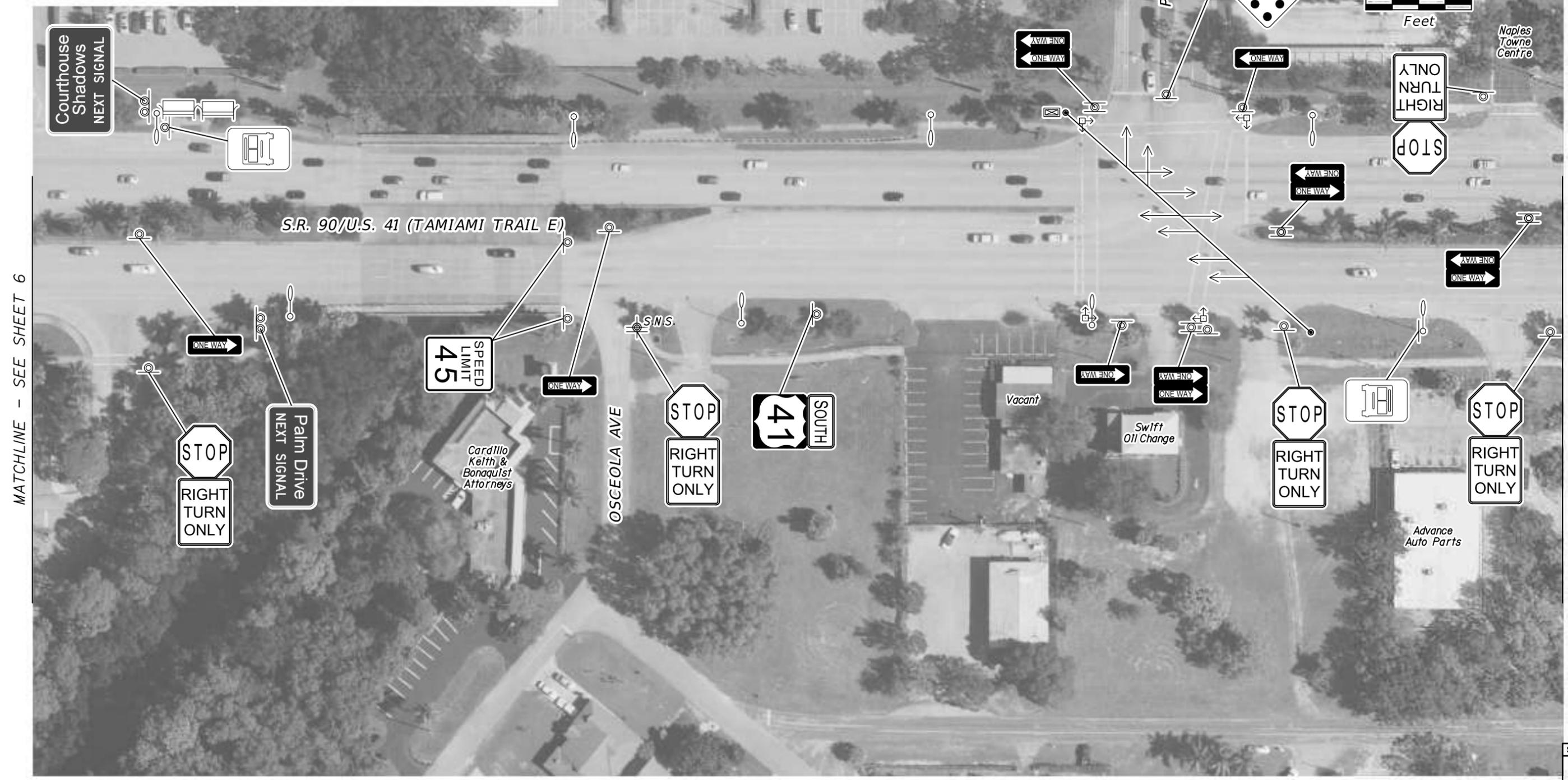
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	GUARDRAIL		HYDRANT		PED. SIGNAL PEDESTAL		SIGNAL MAST ARM		COMBINATION POLE		MULTI-POST SIGN
	BUILDING		STREET NAME SIGN		TRAFFIC SIGNAL PEDESTAL		SIGNAL HEAD		LIGHT POLE		OVERHEAD SIGN

MATCHLINE - SEE SHEET 7

CONDITION DIAGRAM

11.C.1

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE 06/27/2017 PREPARED BY HNTB



MATCHLINE - SEE SHEET 6

MATCHLINE - SEE SHEET 8

SHEET
7

SYMBOLS

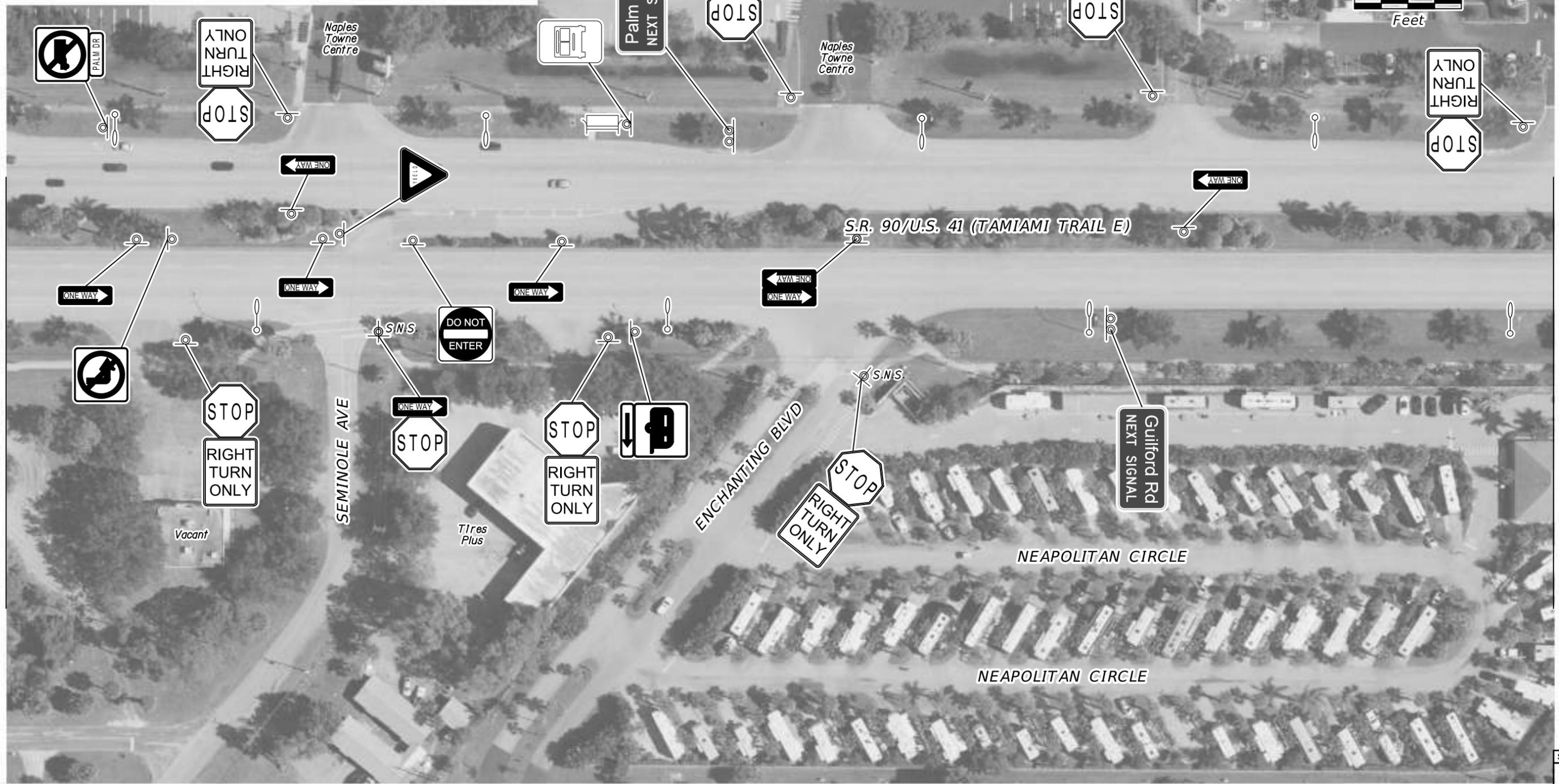
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	GUARDRAIL		HYDRANT		PED. SIGNAL PEDESTAL		SIGNAL MAST ARM		COMBINATION POLE		MULTI-POST SIGN
	BUILDING		STREET NAME SIGN		TRAFFIC SIGNAL PEDESTAL		SIGNAL HEAD		LIGHT POLE		OVERHEAD SIGN

Packet Pg. 247

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm

CONDITION DIAGRAM

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE 06/27/2017 PREPARED BY HNTB



MATCHLINE - SEE SHEET 7

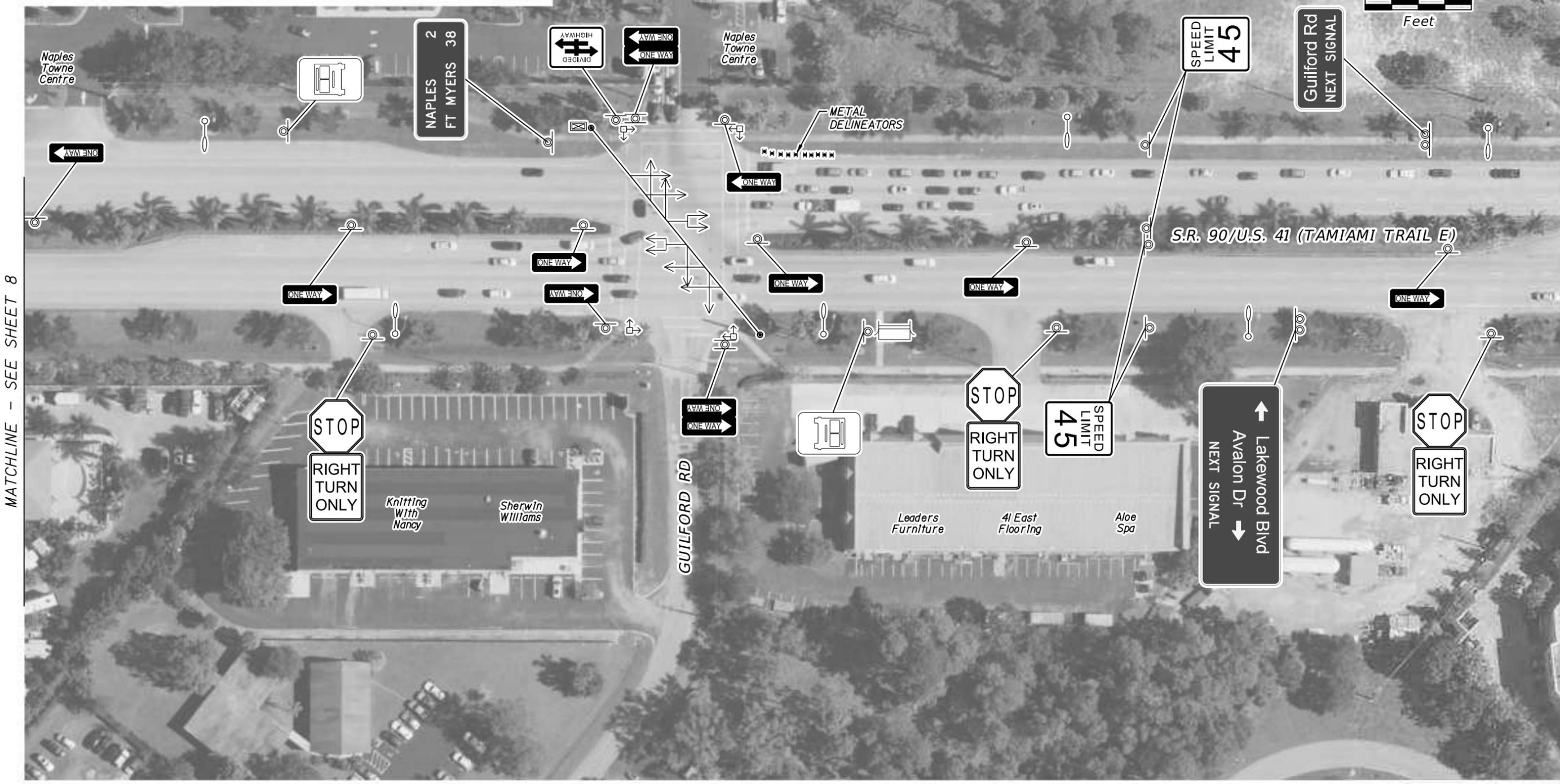
MATCHLINE - SEE SHEET 9

SYMBOLS

	FENCE		BUS STOP BENCH		CONTROLLER CABINET		SIGNAL STRAIN POLE		POWER POLE		SINGLE POST SIGN
	GUARDRAIL		HYDRANT		PED. SIGNAL PEDESTAL		SIGNAL MAST ARM		COMBINATION POLE		MULTI-POST SIGN
	BUILDING		STREET NAME SIGN		TRAFFIC SIGNAL PEDESTAL		SIGNAL HEAD		LIGHT POLE		OVERHEAD SIGN

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	FENCE		BUS STOP BENCH		CONTROLLER CABINET		SIGNAL STRAIN POLE		POWER POLE		SINGLE POST SIGN
	GUARDRAIL		HYDRANT		PED. SIGNAL PEDESTAL		SIGNAL MAST ARM		COMBINATION POLE		MULTI-POST SIGN
	BUILDING		STREET NAME SIGN		TRAFFIC SIGNAL PEDESTAL		SIGNAL HEAD		LIGHT POLE		OVERHEAD SIGN



APPENDIX B

TRAFFIC COUNT DATA

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to

HNTB

201 Franklin St
Suite #1200
Tampa FL 33602

Counter:TDC ULTRA
Counted By:Jason A.
Weather:Rain
Day of the Week:Wednesday

File Name : US 41 @ Commercial Dr TMC
Site Code : 00000000
Start Date : 6/7/2017
Page No : 1

Groups Printed- CARS - TRUCKS

Start Time	US41 Southbound					Commercial Dr Westbound					US41 Northbound					Palm st Eastbound					Int. Tc
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
07:00 AM	1	55	1	4	61	18	6	6	0	30	7	193	3	0	203	4	7	5	0	16	31
07:15 AM	0	99	9	1	109	25	7	2	0	34	2	248	2	0	252	3	7	7	0	17	41
07:30 AM	2	96	7	0	105	20	3	11	0	34	5	288	2	0	295	5	9	8	0	22	45
07:45 AM	0	109	6	0	115	26	14	8	0	48	8	277	5	0	290	1	11	11	0	23	47
Total	3	359	23	5	390	89	30	27	0	146	22	1006	12	0	1040	13	34	31	0	78	165
08:00 AM	2	130	7	1	140	25	9	12	0	46	6	284	6	1	297	5	6	4	0	15	45
08:15 AM	0	104	7	3	114	24	11	9	0	44	9	285	2	0	296	0	12	7	0	19	47
08:30 AM	2	136	11	0	149	22	6	7	0	35	13	271	2	0	286	6	18	7	0	31	50
08:45 AM	2	127	6	3	138	24	10	12	0	46	13	257	4	0	274	4	10	7	0	21	47
Total	6	497	31	7	541	95	36	40	0	171	41	1097	14	1	1153	15	46	25	0	86	195
09:00 AM	0	148	5	2	155	15	9	12	0	36	11	210	2	3	226	4	9	10	0	23	44
09:15 AM	4	124	5	1	134	16	9	15	0	40	9	214	4	2	229	5	6	7	0	18	42
09:30 AM	0	159	8	4	171	11	8	13	0	32	7	224	4	3	238	5	11	5	0	21	45
09:45 AM	6	178	6	4	194	15	10	13	0	38	4	237	6	2	249	5	10	13	0	28	50
Total	10	609	24	11	654	57	36	53	0	146	31	885	16	10	942	19	36	35	0	90	182
11:00 AM	8	196	5	0	209	10	12	21	0	43	14	204	9	2	229	8	13	9	0	30	51
11:15 AM	2	199	7	1	209	17	5	18	0	40	8	239	7	1	255	8	14	2	0	24	52
11:30 AM	6	229	9	0	244	15	17	23	0	55	9	243	4	0	256	8	10	6	0	24	57
11:45 AM	4	223	11	2	240	24	12	27	0	63	10	239	8	6	263	9	11	14	0	34	60
Total	20	847	32	3	902	66	46	89	0	201	41	925	28	9	1003	33	48	31	0	112	221
12:00 PM	4	245	12	4	265	19	11	19	0	49	11	263	7	3	284	14	10	9	0	33	60
12:15 PM	3	247	17	0	267	23	17	22	0	62	20	240	8	2	270	9	10	7	0	26	62
12:30 PM	4	219	15	2	240	16	12	19	0	47	17	262	7	6	292	7	6	7	0	20	55
12:45 PM	4	243	9	1	257	25	18	19	0	62	18	219	8	6	251	8	6	8	0	22	55
Total	15	954	53	7	1029	83	58	79	0	220	66	984	30	17	1097	38	32	31	0	101	244
03:00 PM	5	365	19	2	391	17	16	19	0	52	8	163	8	3	182	5	9	7	0	21	64
03:15 PM	5	370	19	0	394	25	10	27	0	62	5	183	2	1	191	2	7	8	0	17	65
03:30 PM	4	274	15	1	294	13	11	9	0	33	9	211	3	3	226	6	14	3	0	23	57
03:45 PM	6	307	11	0	324	16	7	16	0	39	14	200	3	6	223	2	11	4	0	17	60
Total	20	1316	64	3	1403	71	44	71	0	186	36	757	16	13	822	15	41	22	0	78	245
04:00 PM	5	290	15	0	310	13	9	15	0	37	11	173	3	0	187	4	9	6	0	19	55
04:15 PM	6	328	15	1	350	28	12	14	0	54	6	151	4	4	165	3	7	8	0	18	55
04:30 PM	6	289	21	2	318	12	11	16	0	39	6	190	4	6	206	3	3	2	0	8	57
04:45 PM	3	253	18	1	275	21	15	18	0	54	5	285	0	4	294	11	6	7	0	24	64
Total	20	1160	69	4	1253	74	47	63	0	184	28	799	11	14	852	21	25	23	0	69	235
05:00 PM	5	277	15	0	297	16	11	24	0	51	8	153	3	1	165	5	9	11	0	25	53
05:15 PM	8	329	7	0	344	19	15	19	0	53	8	161	8	1	178	6	4	3	0	13	55
05:30 PM	3	242	6	1	252	14	17	13	0	44	4	159	5	0	168	4	10	6	0	20	45
05:45 PM	1	201	6	1	209	8	5	14	0	27	8	172	5	1	186	8	5	4	0	17	45
Total	17	1049	34	2	1102	57	48	70	0	175	28	645	21	3	697	23	28	24	0	75	204
Grand Total	111	6791	330	42	7274	592	345	492	0	1429	293	7098	148	67	7606	177	290	222	0	689	1695
Apprch %	1.5	93.4	4.5	0.6		41.4	24.1	34.4	0		3.9	93.3	1.9	0.9		25.7	42.1	32.2	0		
Total %	0.7	40	1.9	0.2	42.8	3.5	2	2.9	0	8.4	1.7	41.8	0.9	0.4	44.7	1	1.7	1.3	0	4.1	
CARS	110	6742	327	42	7221	585	338	483	0	1406	292	7055	146	66	7559	176	288	221	0	685	1687
% CARS	99.1	99.3	99.1	100	99.3	98.8	98	98.2	0	98.4	99.7	99.4	98.6	98.5	99.4	99.4	99.3	99.5	0	99.4	99
TRUCKS	1	49	3	0	53	7	7	9	0	23	1	43	2	1	47	1	2	1	0	4	12
% TRUCKS	0.9	0.7	0.9	0	0.7	1.2	2	1.8	0	1.6	0.3	0.6	1.4	1.5	0.6	0.6	0.7	0.5	0	0.6	0

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to

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File Name : US 41 @ Commercial Dr TMC
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Start Time	US41 Southbound					Commercial Dr Westbound					US41 Northbound					Palm st Eastbound					Int. Tc
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
Peak Hour Analysis From 07:00 AM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	03:00 PM					11:30 AM					07:30 AM					11:30 AM					
+0 mins.	5	365	19	2	391	15	17	23	0	55	5	288	2	0	295	8	10	6	0	24	
+15 mins.	5	370	19	0	394	24	12	27	0	63	8	277	5	0	290	9	11	14	0	34	
+30 mins.	4	274	15	1	294	19	11	19	0	49	6	284	6	1	297	14	10	9	0	33	
+45 mins.	6	307	11	0	324	23	17	22	0	62	9	285	2	0	296	9	10	7	0	26	
Total Volume	20	1316	64	3	1403	81	57	91	0	229	28	1134	15	1	1178	40	41	36	0	117	
% App. Total	1.4	93.8	4.6	0.2		35.4	24.9	39.7	0		2.4	96.3	1.3	0.1		34.2	35	30.8	0		
PHF	.833	.889	.842	.375	.890	.844	.838	.843	.000	.909	.778	.984	.625	.250	.992	.714	.932	.643	.000	.860	

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to

Street Name	SB (US 41)				WB (Commercial Dr)				NB (US 41)				EB (Palm St)			
	Start Time	Left	Thru	Right	U Turn	Left	Thru	Right	U Turn	Left	Thru	Right	U Turn	Left	Thru	Right
7:00	1	54	1	4	6	6	17	0	3	193	7	0	5	7	4	
7:15	9	98	0	1	2	7	25	0	2	248	2	0	7	7	3	
7:30	7	96	2	0	11	3	20	0	2	286	5	0	8	9	5	
7:45	6	106	0	0	8	12	26	0	5	277	8	0	11	11	1	
8:00	6	129	2	1	11	8	23	0	6	282	6	1	4	6	5	
8:15	7	104	0	3	9	11	24	0	2	283	9	0	7	12	0	
8:30	11	132	2	0	7	6	22	0	2	269	13	0	7	18	6	
8:45	6	124	1	3	10	9	24	0	4	256	13	0	7	10	4	
9:00	5	146	0	2	12	9	15	0	2	207	11	3	10	9	4	
9:15	5	123	4	1	15	9	16	0	4	214	9	2	6	6	4	
9:30	8	155	0	4	12	8	11	0	4	224	7	3	5	11	5	
9:45	6	177	6	4	13	10	15	0	6	233	4	2	13	10	5	
11:00	5	193	8	0	21	12	10	0	8	203	14	2	9	13	8	
11:15	6	198	2	1	17	5	17	0	7	237	8	1	2	14	8	
11:30	8	227	6	0	23	16	15	0	4	242	9	0	6	10	8	
11:45	11	220	4	2	26	12	23	0	8	237	10	6	14	11	9	
12:00	12	245	4	4	18	11	19	0	7	259	11	3	9	10	14	
12:15	17	246	3	0	22	17	23	0	8	237	20	2	7	10	9	
12:30	15	214	4	2	19	11	16	0	7	262	17	5	7	6	7	
12:45	9	242	4	1	19	18	25	0	8	216	18	6	8	6	8	
15:00	19	361	5	2	18	16	16	0	8	161	7	3	7	9	5	
15:15	19	368	5	0	26	9	24	0	2	180	5	1	8	7	2	
15:30	15	273	4	1	9	11	13	0	2	210	9	3	3	12	6	
15:45	11	307	6	0	16	7	16	0	3	199	14	6	4	11	2	
16:00	15	290	5	0	15	9	13	0	3	173	11	0	6	9	4	
16:15	15	328	6	1	14	12	28	0	4	151	6	4	8	7	3	
16:30	21	287	6	2	16	11	12	0	4	189	6	6	2	3	3	
16:45	18	252	3	1	18	15	20	0	0	285	5	4	7	6	11	
17:00	15	277	5	0	24	11	16	0	3	153	8	1	11	9	5	
17:15	7	329	8	0	19	15	19	0	8	161	8	1	3	4	6	
17:30	6	241	3	1	13	17	14	0	5	159	4	0	6	10	4	
17:45	6	200	1	1	14	5	8	0	5	169	8	1	4	5	8	

Trucks

Street Name	SB (US 41)				WB (Commercial Dr)				NB (US 41)				EB (Palm St)				
	Start Time	Left	Thru	Right	U Turn	Left	Thru	Right	U Turn	Left	Thru	Right	U Turn	Left	Thru	Right	U Tu
7:00	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	
7:15	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:30	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	
7:45	0	3	0	0	0	2	0	0	0	0	0	0	0	0	0	0	
8:00	1	1	0	0	1	1	2	0	0	2	0	0	0	0	0	0	
8:15	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	
8:30	0	4	0	0	0	0	0	0	0	2	0	0	0	0	0	0	
8:45	0	3	1	0	2	1	0	0	0	1	0	0	0	0	0	0	
9:00	0	2	0	0	0	0	0	0	0	3	0	0	0	0	0	0	
9:15	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	
9:30	0	4	0	0	1	0	0	0	0	0	0	0	0	0	0	0	
9:45	0	1	0	0	0	0	0	0	0	4	0	0	0	0	0	0	
11:00	0	3	0	0	0	0	0	0	1	1	0	0	0	0	0	0	
11:15	1	1	0	0	1	0	0	0	0	2	0	0	0	0	0	0	
11:30	1	2	0	0	0	1	0	0	0	1	0	0	0	0	0	0	
11:45	0	3	0	0	1	0	1	0	0	2	0	0	0	0	0	0	
12:00	0	0	0	0	1	0	0	0	0	4	0	0	0	0	0	0	
12:15	0	1	0	0	0	0	0	0	0	3	0	0	0	0	0	0	
12:30	0	5	0	0	0	1	0	0	0	0	0	1	0	0	0	0	
12:45	0	1	0	0	0	0	0	0	0	3	0	0	0	0	0	0	
15:00	0	4	0	0	1	0	1	0	0	2	1	0	0	0	0	0	
15:15	0	2	0	0	1	1	1	0	0	3	0	0	0	0	0	0	
15:30	0	1	0	0	0	0	0	0	1	1	0	0	0	0	2	0	
15:45	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
16:30	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0	
16:45	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
17:30	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
17:45	0	1	0	0	0	0	0	0	0	3	0	0	0	0	0	0	

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to

TURNING MOVEMENT COUNT:US 41 @ Commercial Dr
 EAST/WEST ST:Commercial Dr / Palm st

TIME: 7am-6pm
 NORTH/SOUTH ST:US 41
 COUNTED BY: Jason + Sierra

ALL VEHICLES

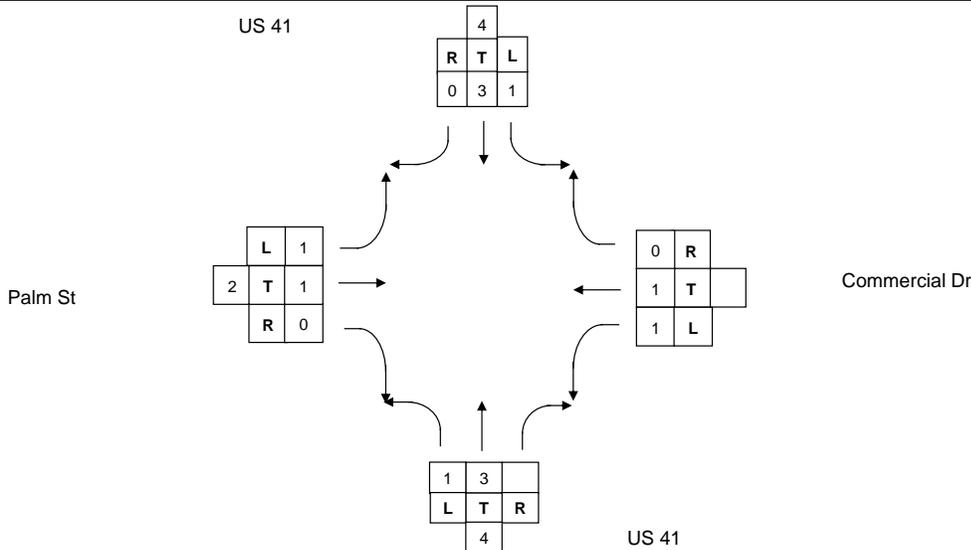
START TIME	NORTHBOUND					SOUTHBOUND					NS TOTAL	EASTBOUND					WESTBOUND					EW TOTAL	GRAND TOTAL
	LEFT	THRU	RIGHT	U-TURN	TOTAL	LEFT	THRU	RIGHT	U-TURN	TOTAL		LEFT	THRU	RIGHT	U-TURN	TOTAL	LEFT	THRU	RIGHT	U-TURN	TOTAL		
7:00	3	193	7	0	203	1	55	1	4	61	264	5	7	4	0	16	6	6	18	0	30	46	310
7:15	2	248	2	0	252	9	99	0	1	109	361	7	7	3	0	17	2	7	25	0	34	51	412
7:30	2	288	5	0	295	7	96	2	0	105	400	8	9	5	0	22	11	3	20	0	34	56	456
7:45	5	277	8	0	290	6	109	0	0	115	405	11	11	1	0	23	8	14	26	0	48	71	476
Total	12	1,006	22	0	1,040	23	359	3	5	390	1,430	31	34	13	0	78	27	30	89	0	146	224	1,654
8:00	6	284	6	1	297	7	130	2	1	140	437	4	6	5	0	15	12	9	25	0	46	61	498
8:15	2	285	9	0	296	7	104	0	3	114	410	7	12	0	0	19	9	11	24	0	44	63	473
8:30	2	271	13	0	286	11	136	2	0	149	435	7	18	6	0	31	7	6	22	0	35	66	501
8:45	4	257	13	0	274	6	127	2	3	138	412	7	10	4	0	21	12	10	24	0	46	67	479
Total	14	1,097	41	1	1,153	31	497	6	7	541	1,694	25	46	15	0	86	40	36	95	0	171	257	1,951
9:00	2	210	11	3	226	5	148	0	2	155	381	10	9	4	0	23	12	9	15	0	36	59	440
9:15	4	214	9	2	229	5	124	4	1	134	363	7	6	5	0	18	15	9	16	0	40	58	421
9:30	4	224	7	3	238	8	159	0	4	171	409	5	11	5	0	21	13	8	11	0	32	53	462
9:45	6	237	4	2	249	6	178	6	4	194	443	13	10	5	0	28	13	10	15	0	38	66	509
Total	16	885	31	10	942	24	609	10	11	654	1,596	35	36	19	0	90	53	36	57	0	146	236	1,832
11:00	9	204	14	2	229	5	196	8	0	209	438	9	13	8	0	30	21	12	10	0	43	73	511
11:15	7	239	8	1	255	7	199	2	1	209	464	2	14	8	0	24	18	5	17	0	40	64	528
11:30	4	243	9	0	256	9	229	6	0	244	500	6	10	8	0	24	23	17	15	0	55	79	579
11:45	8	239	10	6	263	11	223	4	2	240	503	14	11	9	0	34	27	12	24	0	63	97	600
Total	28	925	41	9	1,003	32	847	20	3	902	1,905	31	48	33	0	112	89	46	66	0	201	313	2,218
12:00	7	263	11	3	284	12	245	4	4	265	549	9	10	14	0	33	19	11	19	0	49	82	631
12:15	8	240	20	2	270	17	247	3	0	267	537	7	10	9	0	26	22	17	23	0	62	88	625
12:30	7	262	17	6	292	15	219	4	2	240	532	7	6	7	0	20	19	12	16	0	47	67	599
12:45	8	219	18	6	251	9	243	4	1	257	508	8	6	8	0	22	19	18	25	0	62	84	592
Total	30	984	66	17	1,097	53	954	15	7	1,029	2,126	31	32	38	0	101	79	58	83	0	220	321	2,447
15:00	8	163	8	3	182	19	365	5	2	391	573	7	9	5	0	21	19	16	17	0	52	73	646
15:15	2	183	5	1	191	19	370	5	0	394	585	8	7	2	0	17	27	10	25	0	62	79	664
15:30	3	211	9	3	226	15	274	4	1	294	520	3	14	6	0	23	9	11	13	0	33	56	576
15:45	3	200	14	6	223	11	307	6	0	324	547	4	11	2	0	17	16	7	16	0	39	56	603
Total	16	757	36	13	822	64	1,316	20	3	1,403	2,225	22	41	15	0	78	71	44	71	0	186	264	2,489
16:00	3	173	11	0	187	15	290	5	0	310	497	6	9	4	0	19	15	9	13	0	37	56	553
16:15	4	151	6	4	165	15	328	6	1	350	515	8	7	3	0	18	14	12	28	0	54	72	587
16:30	4	190	6	6	206	21	289	6	2	318	524	2	3	3	0	8	16	11	12	0	39	47	571
16:45	0	285	5	4	294	18	253	3	1	275	569	7	6	11	0	24	18	15	21	0	54	78	647
Total	11	799	28	14	852	69	1,160	20	4	1,253	2,105	23	25	21	0	69	63	47	74	0	184	253	2,358
17:00	3	153	8	1	165	15	277	5	0	297	462	11	9	5	0	25	24	11	16	0	51	76	538
17:15	8	161	8	1	178	7	329	8	0	344	522	3	4	6	0	13	19	15	19	0	53	66	588
17:30	5	159	4	0	168	6	242	3	1	252	420	6	10	4	0	20	13	17	14	0	44	64	484
17:45	5	172	8	1	186	6	201	1	1	209	395	4	5	8	0	17	14	5	8	0	27	44	439
Total	21	645	28	3	697	34	1,049	17	2	1,102	1,799	24	28	23	0	75	70	48	57	0	175	250	2,049

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail

SUMMARY OF VEHICLE MOVEMENTS

SECTION: N/A CITY: Naples COUNTY: Collier
 INTR ROUTE: Commercial Dr / Palm St STATE ROUTE: US 41
 OBSERVER: Jason + Sierra DATE: 06/07/17 MILEPOST:
 WEATHER: Rain ROAD CONDITION: Wet
 REMARKS:

FORM COMPLETED BY: TM DATE: 06/19/17



TIME BEGIN/END	NORTHBOUND					SOUTHBOUND					TOTAL N/S	EASTBOUND					WESTBOUND					TOT E/
	L	T	R	U	TOT	L	T	R	U	TOT		L	T	R	U	TOT	L	T	R	U	TOT	
7 - 8	12	1,006	22	0	1,040	23	359	3	5	390	1,430	31	34	13	0	78	27	30	89	0	146	
8 - 9	14	1,097	41	1	1,153	31	497	6	7	541	1,694	25	46	15	0	86	40	36	95	0	171	
9 - 10	16	885	31	10	942	24	609	10	11	654	1,596	35	36	19	0	90	53	36	57	0	146	
11 - 12	28	925	41	9	1,003	32	847	20	3	902	1,905	31	48	33	0	112	89	46	66	0	201	
12 - 1	30	984	66	17	1,097	53	954	15	7	1,029	2,126	31	32	38	0	101	79	58	83	0	220	
3 - 4	16	757	36	13	822	64	1,316	20	3	1,403	2,225	22	41	15	0	78	71	44	71	0	186	
4 - 5	11	799	28	14	852	69	1,160	20	4	1,253	2,105	23	25	21	0	69	63	47	74	0	184	
5 - 6	21	645	28	3	697	34	1,049	17	2	1,102	1,799	24	28	23	0	75	70	48	57	0	175	
TOTAL	148	7,098	293	67	7,606	330	6,791	111	42	7,274	14,880	222	290	177	0	689	492	345	592	0	1,429	2

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to

FLORIDA DEPARTMENT OF TRANSPORTATION

PEDESTRIAN MOVEMENT SUMMARY

SECTION: N/A CITY: Naples COUNTY: Collier
 INTER. ROUTE: Commercial Dr / Palm St STATE ROUTE: US 41
 OBSERVER: Jason + Sierra DATE: 06/07/17

REMARKS: _____

FORM COMPLETED BY: TM

DATE: 06/19/17

US 41



	7-8	8-9	9-1	11-12	12-1	3-4	4-5	5-6	Total
	1	0	0	0	1	0	0	0	2
	0	0	0	1	1	0	1	0	3
	1	0	0	0	0	0	0	0	1
	0	0	0	0	2	0	0	0	2
Total	2	0	0	1	4	0	1	0	8

	7-8	8-9	9-10	11-12	12-1	3-4	4-5	5-6	Total
	1	4	0	1	6	0	0	0	12
	0	5	0	1	6	0	0	0	12
	0	5	0	0	5	0	0	0	10
	0	2	0	1	3	0	0	0	5
	0	4	2	3	9	0	0	0	16
	0	0	0	0	0	0	0	0	0
	1	2	0	4	7	0	0	0	14
	0	0	0	4	4	0	0	0	8
Total	2	22	2	14	40	0	0	0	48

Commercial Dr / Palm St

	7-8	8-9	9-10	11-12	12-1	3-4	4-5	5-6	Total
	1	0	1	1	3	0	0	0	6
	0	3	0	0	3	0	0	0	6
	0	2	0	0	2	0	0	0	4
	0	1	0	0	1	0	0	0	2
	0	0	0	0	0	0	0	0	0
	0	1	0	0	1	0	0	0	2
	0	1	0	2	3	0	0	0	6
	0	2	0	1	3	0	0	0	6
Total	1	10	1	4	16	0	0	0	22

	7-8	8-9	9-1	11-12	12-1	3-4	4-5	5-6	Total
	2	0	0	0	0	0	0	0	2
	0	1	1	0	0	0	0	0	2
	1	0	0	0	0	0	0	0	1
	0	4	1	0	0	0	0	0	5
	3	5	2	0	0	0	0	0	10

US 41

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to

HNTB

201 Franklin St
Suite #1200
Tampa FL 33602

Counter: TDC ULTRA
Counted By: Tony M
Weather: Rain
Day of the Week: Wednesday

File Name : US 41 @ Bayshore Dr TMC
Site Code : 00000000
Start Date : 6/7/2017
Page No : 1

Groups Printed- CARS - TRUCKS

Start Time	US41 Southbound					SHADOWLAWN DR Westbound					US41 Northbound					BAYSHORE DR Eastbound					Int. Tc
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
07:00 AM	8	69	0	2	79	3	8	5	0	16	10	178	17	3	208	40	8	33	0	81	38
07:15 AM	17	87	1	2	107	2	10	1	0	13	7	220	24	1	252	37	9	41	0	87	48
07:30 AM	16	120	1	6	143	2	9	8	0	19	6	244	42	1	293	37	15	43	0	95	58
07:45 AM	20	119	3	4	146	4	14	5	0	23	13	295	53	0	361	59	8	62	0	129	68
Total	61	395	5	14	475	11	41	19	0	71	36	937	136	5	1114	173	40	179	0	392	208
08:00 AM	14	128	0	2	144	5	12	8	0	25	15	258	37	2	312	45	14	58	0	117	58
08:15 AM	17	109	5	5	136	5	22	3	0	30	15	267	46	2	330	48	14	53	0	115	68
08:30 AM	23	136	2	5	166	6	12	10	0	28	13	299	32	1	345	33	12	44	0	89	68
08:45 AM	16	125	2	8	151	4	25	5	0	34	9	203	54	0	266	54	8	41	0	103	58
Total	70	498	9	20	597	20	71	26	0	117	52	1027	169	5	1253	180	48	196	0	424	238
09:00 AM	16	152	5	3	176	4	10	7	0	21	18	236	38	0	292	26	5	20	1	52	58
09:15 AM	23	107	4	7	141	8	17	5	0	30	9	188	52	0	249	26	11	41	0	78	48
09:30 AM	25	153	6	6	190	2	13	8	0	23	5	208	52	0	265	30	15	31	0	76	58
09:45 AM	23	155	7	4	189	5	19	11	0	35	9	251	28	2	290	37	16	55	0	108	68
Total	87	567	22	20	696	19	59	31	0	109	41	883	170	2	1096	119	47	147	1	314	228
11:00 AM	24	198	6	6	234	10	17	8	0	35	13	221	40	2	276	50	10	32	0	92	68
11:15 AM	24	211	9	8	252	8	14	5	0	27	19	242	40	2	303	47	16	29	1	93	68
11:30 AM	21	238	9	1	269	5	27	13	0	45	9	256	69	1	335	43	15	54	1	113	78
11:45 AM	16	239	5	2	262	6	15	9	0	30	12	244	62	4	322	40	18	58	0	116	78
Total	85	886	29	17	1017	29	73	35	0	137	53	963	211	9	1236	180	59	173	2	414	288
12:00 PM	30	235	4	3	272	7	22	17	0	46	6	255	72	2	335	30	9	43	0	82	78
12:15 PM	20	260	5	7	292	8	21	8	0	37	13	237	82	0	332	58	17	47	1	123	78
12:30 PM	15	209	4	7	235	12	13	5	0	30	14	248	59	1	322	28	10	51	0	89	68
12:45 PM	25	263	5	4	297	3	9	6	0	18	12	281	72	0	365	39	22	48	0	109	78
Total	90	967	18	21	1096	30	65	36	0	131	45	1021	285	3	1354	155	58	189	1	403	298
03:00 PM	38	261	9	3	311	8	15	11	0	34	16	170	49	3	238	51	19	20	0	90	68
03:15 PM	36	316	10	1	363	0	23	11	0	34	6	189	49	2	246	37	11	29	0	77	78
03:30 PM	28	252	5	7	292	9	10	15	0	34	6	193	51	2	252	40	7	22	0	69	68
03:45 PM	35	232	3	2	272	7	23	7	0	37	16	216	60	4	296	44	23	35	2	104	78
Total	137	1061	27	13	1238	24	71	44	0	139	44	768	209	11	1032	172	60	106	2	340	278
04:00 PM	29	249	4	6	288	4	21	6	0	31	7	166	62	2	237	43	7	24	0	74	68
04:15 PM	24	271	7	2	304	10	26	6	0	42	13	177	62	3	255	44	9	20	0	73	68
04:30 PM	33	265	2	4	304	4	19	9	0	32	16	181	50	1	248	48	17	30	0	95	68
04:45 PM	31	233	8	2	274	4	22	20	0	46	16	173	75	5	269	40	13	32	0	85	68
Total	117	1018	21	14	1170	22	88	41	0	151	52	697	249	11	1009	175	46	106	0	327	268
05:00 PM	28	251	5	3	287	14	19	21	0	54	12	198	51	2	263	59	14	29	0	102	78
05:15 PM	39	275	2	1	317	5	32	7	0	44	8	149	64	6	227	54	19	31	0	104	68
05:30 PM	44	197	7	2	250	5	12	10	0	27	11	171	59	1	242	44	9	24	1	78	58
05:45 PM	27	196	5	2	230	4	17	12	0	33	4	192	51	2	249	51	12	23	0	86	58
Total	138	919	19	8	1084	28	80	50	0	158	35	710	225	11	981	208	54	107	1	370	258
Grand Total	785	6311	150	127	7373	183	548	282	0	1013	358	7006	1654	57	9075	1362	412	1203	7	2984	2048
Apprch %	10.6	85.6	2	1.7		18.1	54.1	27.8	0		3.9	77.2	18.2	0.6		45.6	13.8	40.3	0.2		
Total %	3.8	30.9	0.7	0.6	36.1	0.9	2.7	1.4	0	5	1.8	34.3	8.1	0.3	44.4	6.7	2	5.9	0	14.6	
CARS	743	6193	145	127	7208	181	520	273	0	974	346	6866	1602	51	8865	1311	402	1155	7	2875	1992
% CARS	94.6	98.1	96.7	100	97.8	98.9	94.9	96.8	0	96.2	96.6	98	96.9	89.5	97.7	96.3	97.6	96	100	96.3	97
TRUCKS	42	118	5	0	165	2	28	9	0	39	12	140	52	6	210	51	10	48	0	109	52
% TRUCKS	5.4	1.9	3.3	0	2.2	1.1	5.1	3.2	0	3.8	3.4	2	3.1	10.5	2.3	3.7	2.4	4	0	3.7	2

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to

HNTB

201 Franklin St
Suite #1200
Tampa FL 33602

Counter: TDC ULTRA
Counted By: Tony M
Weather: Rain
Day of the Week: Wednesday

File Name : US 41 @ Bayshore Dr TMC
Site Code : 00000000
Start Date : 6/7/2017
Page No : 2

Start Time	US41 Southbound					SHADOWLAWN DR Westbound					US41 Northbound					BAYSHORE DR Eastbound					Int. Tc
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
Peak Hour Analysis From 07:00 AM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	03:00 PM					04:30 PM					12:00 PM					07:30 AM					
+0 mins.	38	261	9	3	311	4	19	9	0	32	6	255	72	2	335	37	15	43	0	95	
+15 mins.	36	316	10	1	363	4	22	20	0	46	13	237	82	0	332	59	8	62	0	129	
+30 mins.	28	252	5	7	292	14	19	21	0	54	14	248	59	1	322	45	14	58	0	117	
+45 mins.	35	232	3	2	272	5	32	7	0	44	12	281	72	0	365	48	14	53	0	115	
Total Volume	137	1061	27	13	1238	27	92	57	0	176	45	1021	285	3	1354	189	51	216	0	456	
% App. Total	11.1	85.7	2.2	1.1		15.3	52.3	32.4	0		3.3	75.4	21	0.2		41.4	11.2	47.4	0		
PHF	.901	.839	.675	.464	.853	.482	.719	.679	.000	.815	.804	.908	.869	.375	.927	.801	.850	.871	.000	.884	

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to

Street Name	SB (US 41)				WB (Bayshore Dr)				NB (US 41)				EB (Shadowlawn Dr)			
	Start Time	Left	Thru	Right	U Turn	Left	Thru	Right	U Turn	Left	Thru	Right	U Turn	Left	Thru	Right
7:00	0	67	8	2	5	8	3	0	16	172	10	1	31	8	37	
7:15	1	84	16	2	1	9	2	0	21	217	7	1	38	8	36	
7:30	1	117	13	6	7	9	2	0	39	238	6	1	43	14	36	
7:45	3	115	19	4	2	14	4	0	50	288	12	0	60	8	58	
8:00	0	124	13	2	7	12	4	0	32	249	13	2	57	14	44	
8:15	4	105	16	5	3	20	5	0	46	260	15	1	50	14	47	
8:30	2	133	21	5	10	10	6	0	29	290	13	1	44	12	31	
8:45	2	118	14	8	5	23	4	0	51	201	8	0	39	8	48	
9:00	5	150	14	3	7	10	4	0	36	227	18	0	20	5	26	
9:15	3	105	22	7	5	17	7	0	50	186	9	0	39	11	24	
9:30	6	147	24	6	8	13	2	0	51	206	5	0	30	14	25	
9:45	7	153	22	4	11	19	5	0	26	243	9	2	50	16	34	
11:00	5	186	23	6	8	17	10	0	39	219	13	2	31	10	47	
11:15	8	207	21	8	5	12	8	0	38	233	19	2	28	16	46	
11:30	9	226	18	1	12	26	5	0	69	247	8	1	52	15	42	
11:45	5	228	13	2	8	15	6	0	62	240	11	3	54	18	38	
12:00	4	234	30	3	17	22	7	0	70	247	6	2	40	9	30	
12:15	5	255	20	7	8	18	8	0	80	230	13	0	46	17	56	
12:30	4	208	14	7	5	13	12	0	58	247	12	1	51	10	26	
12:45	5	259	23	4	6	7	3	0	69	275	11	0	46	21	37	
15:00	8	260	38	3	11	15	8	0	47	167	16	3	20	18	51	
15:15	10	313	32	1	10	19	0	0	47	186	6	2	27	11	36	
15:30	5	248	26	7	15	8	9	0	49	192	6	2	21	6	38	
15:45	3	230	34	2	7	21	7	0	60	210	14	3	33	23	43	
16:00	4	246	28	6	6	20	4	0	62	165	7	2	23	6	41	
16:15	7	267	23	2	6	25	10	0	61	175	13	3	20	7	43	
16:30	2	263	31	4	9	18	4	0	50	176	16	1	28	17	47	
16:45	8	232	30	2	20	22	4	0	72	173	16	5	31	13	38	
17:00	5	248	28	3	21	19	14	0	49	197	12	2	28	14	58	
17:15	2	274	39	1	7	31	5	0	64	149	8	5	31	19	53	
17:30	7	197	43	2	9	12	5	0	59	170	10	1	23	9	44	
17:45	5	194	27	2	12	16	4	0	50	191	4	2	21	11	51	

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to

Trucks

Street Name	SB (US 41)				WB (Bayshore Dr)				NB (US 41)				EB (Shadowlawn Dr)				
	Start Time	Left	Thru	Right	U Turn	Left	Thru	Right	U Turn	Left	Thru	Right	U Turn	Left	Thru	Right	U Tu
7:00	0	2	0	0	0	0	0	0	0	1	6	0	2	2	0	3	
7:15	0	3	1	0	0	1	0	0	0	3	3	0	0	3	1	1	
7:30	0	3	3	0	1	0	0	0	0	3	6	0	0	0	1	1	
7:45	0	4	1	0	3	0	0	0	0	3	7	1	0	2	0	1	
8:00	0	4	1	0	1	0	1	0	0	5	9	2	0	1	0	1	
8:15	1	4	1	0	0	2	0	0	0	0	7	0	1	3	0	1	
8:30	0	3	2	0	0	2	0	0	0	3	9	0	0	0	0	2	
8:45	0	7	2	0	0	2	0	0	0	3	2	1	0	2	0	6	
9:00	0	2	2	0	0	0	0	0	0	2	9	0	0	0	0	0	
9:15	1	2	1	0	0	0	1	0	0	2	2	0	0	2	0	2	
9:30	0	6	1	0	0	0	0	0	0	1	2	0	0	1	1	5	
9:45	0	2	1	0	0	0	0	0	0	2	8	0	0	5	0	3	
11:00	1	12	1	0	0	0	0	0	0	1	2	0	0	1	0	3	
11:15	1	4	3	0	0	2	0	0	0	2	9	0	0	1	0	1	
11:30	0	12	3	0	1	1	0	0	0	0	9	1	0	2	0	1	
11:45	0	11	3	0	1	0	0	0	0	0	4	1	1	4	0	2	
12:00	0	1	0	0	0	0	0	0	0	2	8	0	0	3	0	0	
12:15	0	5	0	0	0	3	0	0	0	2	7	0	0	1	0	2	
12:30	0	1	1	0	0	0	0	0	0	1	1	2	0	0	0	2	
12:45	0	4	2	0	0	2	0	0	0	3	6	1	0	2	1	2	
15:00	1	1	0	0	0	0	0	0	0	2	3	0	0	0	1	0	
15:15	0	3	4	0	1	4	0	0	0	2	3	0	0	2	0	1	
15:30	0	4	2	0	0	2	0	0	0	2	1	0	0	1	1	2	
15:45	0	2	1	0	0	2	0	0	0	0	6	2	1	2	0	1	
16:00	0	3	1	0	0	1	0	0	0	0	1	0	0	1	1	2	
16:15	0	4	1	0	0	1	0	0	0	1	2	0	0	0	2	1	
16:30	0	2	2	0	0	1	0	0	0	0	5	0	0	2	0	1	
16:45	0	1	1	0	0	0	0	0	0	3	0	0	0	1	0	2	
17:00	0	3	0	0	0	0	0	0	0	2	1	0	0	1	0	1	
17:15	0	1	0	0	0	1	0	0	0	0	0	0	1	0	0	1	
17:30	0	0	1	0	1	0	0	0	0	0	1	1	0	1	0	0	
17:45	0	2	0	0	0	1	0	0	0	1	1	0	0	2	1	0	

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to

TURNING MOVEMENT COUNT: US 41 @ Bayshore Dr
 EAST/WEST ST: Bayshore Dr / Shadowlawn Dr

TIME: 7am-6pm
 NORTH/SOUTH ST: US 41
 COUNTED BY: TM

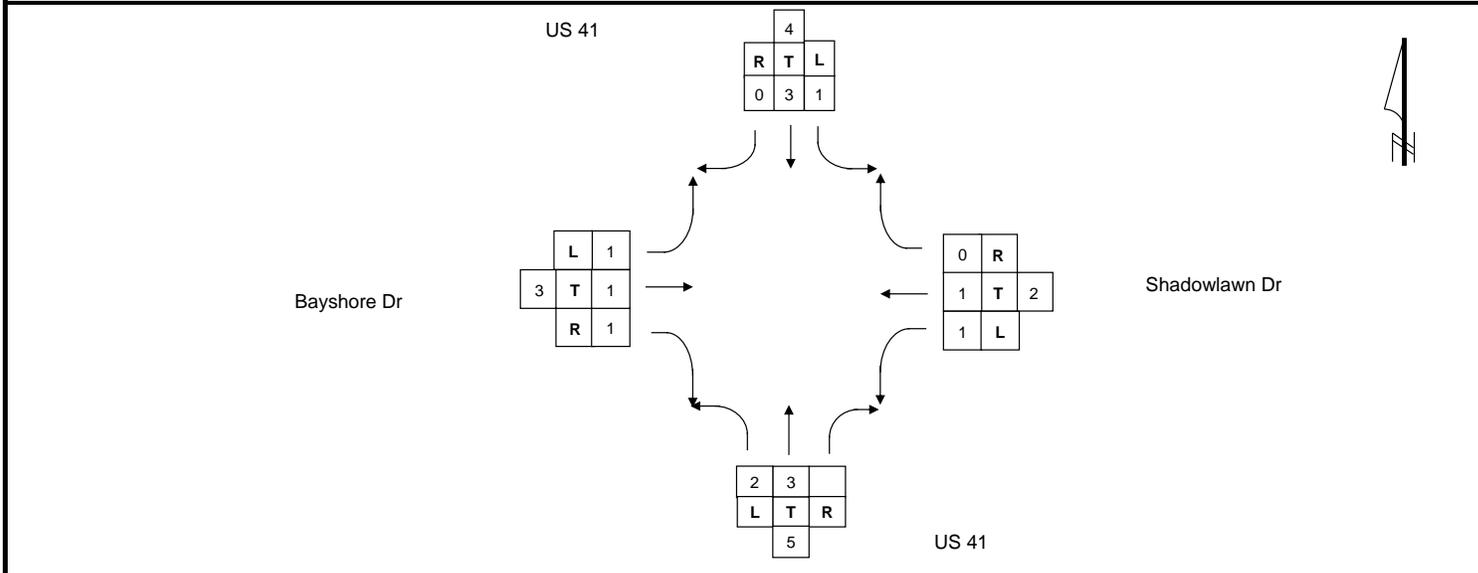
ALL VEHICLES

START TIME	NORTHBOUND					SOUTHBOUND					NS TOTAL	EASTBOUND					WESTBOUND					EW TOTAL	GRAND TOTAL
	LEFT	THRU	RIGHT	U-TURN	TOTAL	LEFT	THRU	RIGHT	U-TURN	TOTAL		LEFT	THRU	RIGHT	U-TURN	TOTAL	LEFT	THRU	RIGHT	U-TURN	TOTAL		
7:00	17	178	10	3	208	0	69	8	2	79	287	33	8	40	0	81	5	8	3	0	16	97	384
7:15	24	220	7	1	252	1	87	17	2	107	359	41	9	37	0	87	1	10	2	0	13	100	459
7:30	42	244	6	1	293	1	120	16	6	143	436	43	15	37	0	95	8	9	2	0	19	114	550
7:45	53	295	13	0	361	3	119	20	4	146	507	62	8	59	0	129	5	14	4	0	23	152	659
Total	136	937	36	5	1,114	5	395	61	14	475	1,589	179	40	173	0	392	19	41	11	0	71	463	2,052
8:00	37	258	15	2	312	0	128	14	2	144	456	58	14	45	0	117	8	12	5	0	25	142	598
8:15	46	267	15	2	330	5	109	17	5	136	466	53	14	48	0	115	3	22	5	0	30	145	611
8:30	32	299	13	1	345	2	136	23	5	166	511	44	12	33	0	89	10	12	6	0	28	117	628
8:45	54	203	9	0	266	2	125	16	8	151	417	41	8	54	0	103	5	25	4	0	34	137	554
Total	169	1,027	52	5	1,253	9	498	70	20	597	1,850	196	48	180	0	424	26	71	20	0	117	541	2,391
9:00	38	236	18	0	292	5	152	16	3	176	468	20	5	26	1	52	7	10	4	0	21	73	541
9:15	52	188	9	0	249	4	107	23	7	141	390	41	11	26	0	78	5	17	8	0	30	108	498
9:30	52	208	5	0	265	6	153	20	6	190	455	31	15	30	0	76	8	13	2	0	23	99	554
9:45	28	251	9	2	290	7	155	23	4	189	479	55	16	37	0	108	11	19	5	0	35	143	622
Total	170	883	41	2	1,096	22	567	87	20	696	1,792	147	47	119	1	314	31	59	19	0	109	423	2,215
11:00	40	221	13	2	276	6	198	24	6	234	510	32	10	50	0	92	8	17	10	0	35	127	637
11:15	40	242	19	2	303	9	211	24	8	252	555	29	16	47	1	93	5	14	8	0	27	120	675
11:30	69	256	9	1	335	9	238	21	1	269	604	54	15	43	1	113	13	27	5	0	45	158	762
11:45	62	244	12	4	322	5	239	16	2	262	584	58	18	40	0	116	9	15	6	0	30	146	730
Total	211	963	53	9	1,236	29	886	85	17	1,017	2,253	173	59	180	2	414	35	73	29	0	137	551	2,804
12:00	72	255	6	2	335	4	235	30	3	272	607	43	9	30	0	82	17	22	7	0	46	128	735
12:15	82	237	13	0	332	5	260	20	7	292	624	47	17	58	1	123	8	21	8	0	37	160	784
12:30	59	248	14	1	322	4	209	15	7	235	557	51	10	28	0	89	5	13	12	0	30	119	676
12:45	72	281	12	0	365	5	263	25	4	297	662	48	22	39	0	109	6	9	3	0	18	127	789
Total	285	1,021	45	3	1,354	18	967	90	21	1,096	2,450	189	58	155	1	403	36	65	30	0	131	534	2,984
15:00	49	170	16	3	238	9	261	38	3	311	549	20	19	51	0	90	11	15	8	0	34	124	673
15:15	49	189	6	2	246	10	316	36	1	363	609	29	11	37	0	77	11	23	0	0	34	111	720
15:30	51	193	6	2	252	5	252	28	7	292	544	22	7	40	0	69	15	10	9	0	34	103	647
15:45	60	216	16	4	296	3	232	35	2	272	568	35	23	44	2	104	7	23	7	0	37	141	709
Total	209	768	44	11	1,032	27	1,061	137	13	1,238	2,270	106	60	172	2	340	44	71	24	0	139	479	2,749
16:00	62	166	7	2	237	4	249	29	6	288	525	24	7	43	0	74	6	21	4	0	31	105	630
16:15	62	177	13	3	255	7	271	24	2	304	559	20	9	44	0	73	6	26	10	0	42	115	674
16:30	50	181	16	1	248	2	265	33	4	304	552	30	17	48	0	95	9	19	4	0	32	127	679
16:45	75	173	16	5	269	8	233	31	2	274	543	32	13	40	0	85	20	22	4	0	46	131	674
Total	249	697	52	11	1,009	21	1,018	117	14	1,170	2,179	106	46	175	0	327	41	88	22	0	151	478	2,657
17:00	51	198	12	2	263	5	251	28	3	287	550	29	14	59	0	102	21	19	14	0	54	156	706
17:15	64	149	8	6	227	2	275	39	1	317	544	31	19	54	0	104	7	32	5	0	44	148	692
17:30	59	171	11	1	242	7	197	44	2	250	492	24	9	44	1	78	10	12	5	0	27	105	597
17:45	51	192	4	2	249	5	196	27	2	230	479	23	12	51	0	86	12	17	4	0	33	119	598
Total	225	710	35	11	981	19	919	138	8	1,084	2,065	107	54	208	1	370	50	80	28	0	158	528	2,593

SUMMARY OF VEHICLE MOVEMENTS

SECTION: N/A CITY: Naples COUNTY: Collier
 INTR ROUTE: Bayshore Dr / Shadowlawn Dr STATE ROUTE: US 41
 OBSERVER: TM DATE: 06/07/17 MILEPOST:
 WEATHER: Rain ROAD CONDITION: Wet
 REMARKS:

FORM COMPLETED BY: TM DATE: 6/9/2017



TIME	NORTHBOUND					SOUTHBOUND					TOTAL	EASTBOUND					WESTBOUND					TOT
	L	T	R	U	TOT	L	T	R	U	TOT		N/S	L	T	R	U	TOT	L	T	R	U	
7 - 8	136	937	36	5	1,114	5	395	61	14	475	1,589	179	40	173	0	392	19	41	11	0	71	
8 - 9	169	1,027	52	5	1,253	9	498	70	20	597	1,850	196	48	180	0	424	26	71	20	0	117	
9 - 10	170	883	41	2	1,096	22	567	87	20	696	1,792	147	47	119	1	314	31	59	19	0	109	
11 - 12	211	963	53	9	1,236	29	886	85	17	1,017	2,253	173	59	180	2	414	35	73	29	0	137	
12 - 1	285	1,021	45	3	1,354	18	967	90	21	1,096	2,450	189	58	155	1	403	36	65	30	0	131	
3 - 4	209	768	44	11	1,032	27	1,061	137	13	1,238	2,270	106	60	172	2	340	44	71	24	0	139	
4 - 5	249	697	52	11	1,009	21	1,018	117	14	1,170	2,179	106	46	175	0	327	41	88	22	0	151	
5 - 6	225	710	35	11	981	19	919	138	8	1,084	2,065	107	54	208	1	370	50	80	28	0	158	
TOTAL	1,654	7,006	358	57	9,075	150	6,311	785	127	7,373	16,448	1,203	412	1,362	7	2,984	282	548	183	0	1,013	3

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to

FLORIDA DEPARTMENT OF TRANSPORTATION

PEDESTRIAN MOVEMENT SUMMARY

SECTION: N/A CITY: Naples COUNTY: Collier
 INTER. ROUTE: Bayshore Dr / Shadowlawn Dr STATE ROUTE: US 41
 OBSERVER: Sam A. DATE: 06/07/17

REMARKS: _____

FORM COMPLETED BY: TM

DATE: 06/09/17

US 41



	7-8	8-9	9-1	11-12	12-1	3-4	4-5	5-6	Total
	0	0	0	1	0	0	0	0	1
	1	2	0	0	0	0	0	1	4
	0	0	0	0	0	0	1	0	1
	1	1	0	2	1	0	0	0	5
Total	2	3	0	3	1	0	1	1	11

	7-8	8-9	9-10	11-12	12-1	3-4	4-5	5-6	Total
	0	4	0	1	5				
	1	2	0	0	3				
	1	7	0	0	8				
	3	2	0	0	5				
	1	2	0	0	3				
	0	0	0	0	0				
	3	2	0	0	5				
	0	2	0	0	2				
Total	9	21	0	1	31				

Bayshore Dr / Shadowlawn Dr

	7-8	8-9	9-10	11-12	12-1	3-4	4-5	5-6	Total
	1	3	0	1	5				
	0	5	0	0	5				
	2	2	0	1	5				
	0	2	0	1	3				
	2	5	1	1	9				
	0	1	0	1	2				
	0	0	2	5	7				
	1	2	2	2	7				
Total	6	20	5	12	43				

	7-8	8-9	9-1	11-12	12-1	3-4	4-5	5-6	Total
	0	1	0	0	3	1	0	0	5
	1	0	2	2	2	2	0	1	10
	3	0	1	1	4	0	1	0	10
	0	1	1	3	3	0	1	1	10
Total	4	2	4	6	12	3	2	2	35

US 41

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to

HNTB

201 Franklin St
Suite #1200
Tampa FL 33602

Counter: TDC ULTRA
Counted By: Tony M
Weather: Cloudy
Day of the Week: Tuesday

File Name : US 41 @ Airport Pulling TMC
Site Code : 00000000
Start Date : 6/6/2017
Page No : 1

Groups Printed- CARS - TRUCKS

Start Time	US41 Southbound					AIRPORT PULLING Westbound					US41 Northbound					Peters Ave Eastbound					Int. Tc
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
07:00 AM	0	76	50	1	127	27	1	55	0	83	97	186	0	0	283	0	0	0	0	0	49
07:15 AM	0	99	57	0	156	34	0	85	0	119	101	252	0	0	353	0	0	1	0	1	62
07:30 AM	0	108	75	0	183	37	1	91	0	129	107	324	0	0	431	0	0	0	0	0	74
07:45 AM	0	105	72	0	177	49	0	89	0	138	115	291	0	0	406	0	0	0	0	0	72
Total	0	388	254	1	643	147	2	320	0	469	420	1053	0	0	1473	0	0	1	0	1	258
08:00 AM	0	139	71	0	210	51	1	125	0	177	120	277	0	0	397	0	0	1	0	1	78
08:15 AM	0	142	59	1	202	32	0	94	0	126	137	240	0	0	377	0	0	0	0	0	70
08:30 AM	0	132	60	3	195	53	1	131	0	185	154	298	0	1	453	0	2	1	0	3	83
08:45 AM	0	132	93	1	226	47	0	96	0	143	158	208	1	2	369	1	3	0	0	4	74
Total	0	545	283	5	833	183	2	446	0	631	569	1023	1	3	1596	1	5	2	0	8	306
09:00 AM	0	168	50	1	219	51	1	105	1	158	93	252	0	0	345	1	0	1	0	2	72
09:15 AM	1	114	83	2	200	55	0	66	0	121	114	245	0	2	361	0	1	1	0	2	68
09:30 AM	0	135	63	0	198	43	2	95	0	140	115	250	0	2	365	0	1	3	0	4	70
09:45 AM	0	197	56	0	253	30	1	98	0	129	98	245	0	0	343	1	0	3	0	4	72
Total	1	614	252	3	870	179	4	364	1	548	420	992	0	2	1414	2	2	8	0	12	284
11:00 AM	0	173	70	1	244	54	1	99	0	154	153	222	0	2	377	0	0	1	0	1	77
11:15 AM	4	231	64	1	300	59	0	143	0	202	97	230	0	2	329	0	1	1	0	2	83
11:30 AM	0	199	77	2	278	72	1	137	0	210	124	242	0	1	367	0	0	1	0	1	85
11:45 AM	0	201	88	1	290	55	0	140	0	195	136	222	0	1	359	1	2	1	0	4	84
Total	4	804	299	5	1112	240	2	519	0	761	510	916	0	6	1432	1	3	4	0	8	331
12:00 PM	0	250	84	0	334	71	2	161	0	234	130	242	0	0	372	0	0	1	0	1	94
12:15 PM	0	279	72	0	351	53	1	174	0	228	156	182	0	1	339	1	3	3	0	7	92
12:30 PM	0	245	69	2	316	35	1	155	0	191	111	292	0	1	404	0	2	6	0	8	91
12:45 PM	2	257	67	2	328	41	2	138	0	181	162	236	0	1	399	0	0	2	0	2	91
Total	2	1031	292	4	1329	200	6	628	0	834	559	952	0	3	1514	1	5	12	0	18	366
03:00 PM	0	261	92	5	358	52	0	166	0	218	123	259	0	1	383	2	1	5	0	8	96
03:15 PM	0	298	67	5	370	51	1	140	0	192	124	219	0	3	346	1	2	1	0	4	91
03:30 PM	0	269	84	3	356	55	1	151	0	207	85	252	0	1	338	1	2	2	0	5	90
03:45 PM	0	297	73	4	374	47	2	187	0	236	79	240	0	0	319	0	2	0	0	2	93
Total	0	1125	316	17	1458	205	4	644	0	853	411	970	0	5	1386	4	7	8	0	19	371
04:00 PM	0	294	66	4	364	56	1	138	0	195	123	211	1	2	337	1	1	4	0	6	90
04:15 PM	0	303	66	2	371	72	2	195	1	270	120	230	0	1	351	2	0	4	0	6	95
04:30 PM	0	301	98	6	405	60	1	134	1	196	152	280	0	1	433	1	1	1	0	3	100
04:45 PM	0	295	49	1	345	58	7	123	1	189	97	228	0	0	325	1	2	0	0	3	86
Total	0	1193	279	13	1485	246	11	590	3	850	492	949	1	4	1446	5	4	9	0	18	376
05:00 PM	0	288	66	6	360	46	3	205	0	254	151	274	0	0	425	0	0	1	0	1	104
05:15 PM	0	335	82	2	419	78	1	231	0	310	150	203	0	1	354	1	1	0	0	2	108
05:30 PM	0	290	80	3	373	47	1	138	0	186	113	199	0	0	312	1	3	1	0	5	87
05:45 PM	0	240	59	1	300	60	1	144	0	205	69	196	0	0	265	1	1	0	0	2	77
Total	0	1153	287	12	1452	231	6	718	0	955	483	872	0	1	1356	3	5	2	0	10	377
Grand Total	7	6853	2262	60	9182	1631	37	4229	4	5901	3864	7727	2	24	11617	17	31	46	0	94	2679
Apprch %	0.1	74.6	24.6	0.7		27.6	0.6	71.7	0.1		33.3	66.5	0	0.2		18.1	33	48.9	0		
Total %	0	25.6	8.4	0.2	34.3	6.1	0.1	15.8	0	22	14.4	28.8	0	0.1	43.4	0.1	0.1	0.2	0	0.4	
CARS	7	6736	2177	58	8978	1567	35	4043	4	5649	3716	7626	2	24	11368	16	31	44	0	91	2608
% CARS	100	98.3	96.2	96.7	97.8	96.1	94.6	95.6	100	95.7	96.2	98.7	100	100	97.9	94.1	100	95.7	0	96.8	97
TRUCKS	0	117	85	2	204	64	2	186	0	252	148	101	0	0	249	1	0	2	0	3	70
% TRUCKS	0	1.7	3.8	3.3	2.2	3.9	5.4	4.4	0	4.3	3.8	1.3	0	0	2.1	5.9	0	4.3	0	3.2	2

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to

HNTB

201 Franklin St
Suite #1200
Tampa FL 33602

Counter: TDC ULTRA
Counted By: Tony M
Weather: Cloudy
Day of the Week: Tuesday

File Name : US 41 @ Airport Pulling TMC
Site Code : 00000000
Start Date : 6/6/2017
Page No : 2

Start Time	US41 Southbound					AIRPORT PULLING Westbound					US41 Northbound					Peters Ave Eastbound					Int. Tc
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
Peak Hour Analysis From 07:00 AM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	04:30 PM					05:00 PM					07:45 AM					11:45 AM					
+0 mins.	0	301	98	6	405	46	3	205	0	254	115	291	0	0	406	1	2	1	0	4	
+15 mins.	0	295	49	1	345	78	1	231	0	310	120	277	0	0	397	0	0	1	0	1	
+30 mins.	0	288	66	6	360	47	1	138	0	186	137	240	0	0	377	1	3	3	0	7	
+45 mins.	0	335	82	2	419	60	1	144	0	205	154	298	0	1	453	0	2	6	0	8	
Total Volume	0	1219	295	15	1529	231	6	718	0	955	526	1106	0	1	1633	2	7	11	0	20	
% App. Total	0	79.7	19.3	1		24.2	0.6	75.2	0		32.2	67.7	0	0.1		10	35	55	0		
PHF	.000	.910	.753	.625	.912	.740	.500	.777	.000	.770	.854	.928	.000	.250	.901	.500	.583	.458	.000	.625	

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to

Street Name	SB (US 41)				WB (Airport Pulling)				NB (US 41)				EB (Peters Ave)			
	Start Time	Left	Thru	Right	U Turn	Left	Thru	Right	U Turn	Left	Thru	Right	U Turn	Left	Thru	Right
7:00	46	75	0	1	48	1	27	0	0	186	97	0	0	0	0	0
7:15	56	95	0	0	74	0	30	0	0	252	101	0	1	0	0	0
7:30	73	104	0	0	87	1	35	0	0	324	107	0	0	0	0	0
7:45	69	101	0	0	84	0	45	0	0	291	115	0	0	0	0	0
8:00	68	135	0	0	117	1	48	0	0	277	120	0	1	0	0	0
8:15	58	139	0	1	84	0	32	0	0	240	137	0	0	0	0	0
8:30	57	128	0	3	118	1	50	0	0	292	153	1	1	2	0	0
8:45	87	123	0	1	89	0	44	0	1	202	152	2	0	3	1	0
9:00	49	163	0	1	98	1	48	1	0	246	89	0	1	0	1	0
9:15	77	110	1	2	58	0	50	0	0	234	107	2	1	1	0	0
9:30	59	130	0	0	88	1	40	0	0	246	108	0	3	1	0	0
9:45	56	189	0	0	91	1	25	0	0	242	92	0	3	0	1	0
11:00	63	169	0	1	89	1	52	0	0	217	139	2	1	0	0	0
11:15	60	224	4	1	136	0	58	0	0	221	95	2	1	1	0	0
11:30	72	196	0	2	131	1	70	0	0	234	114	1	1	0	0	0
11:45	86	196	0	1	133	0	51	0	0	214	131	1	1	2	1	0
12:00	80	244	0	0	152	2	67	0	0	238	123	0	1	0	0	0
12:15	71	266	0	0	169	1	51	0	0	179	153	1	2	3	1	0
12:30	64	238	0	1	150	1	34	0	0	286	106	1	5	2	0	0
12:45	65	256	2	2	131	2	41	0	0	232	154	1	2	0	0	0
15:00	89	261	0	4	164	0	52	0	0	258	112	1	5	1	2	0
15:15	66	294	0	5	137	1	50	0	0	212	117	3	1	2	1	0
15:30	81	266	0	3	148	1	53	0	0	249	80	1	2	2	1	0
15:45	69	296	0	4	186	2	46	0	0	240	77	0	0	2	0	0
16:00	64	292	0	4	136	1	55	0	1	210	117	2	4	1	1	0
16:15	65	303	0	2	191	1	69	1	0	228	114	1	4	0	1	0
16:30	94	300	0	6	132	1	60	1	0	278	141	1	1	1	1	0
16:45	48	295	0	1	120	7	58	1	0	228	95	0	0	2	1	0
17:00	64	287	0	6	203	3	46	0	0	273	147	0	1	0	0	0
17:15	82	335	0	2	223	1	78	0	0	202	146	1	0	1	1	0
17:30	80	288	0	3	136	1	46	0	0	199	109	0	1	3	1	0
17:45	59	238	0	1	140	1	56	0	0	196	68	0	0	1	1	0

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to

Trucks

Street Name	SB (US 41)				WB (Airport Pulling)				NB (US 41)				EB (Peters Ave)				
	Start Time	Left	Thru	Right	U Turn	Left	Thru	Right	U Turn	Left	Thru	Right	U Turn	Left	Thru	Right	U Tu
7:00	4	1	0	0	7	0	0	0	0	0	0	0	0	0	0	0	
7:15	1	4	0	0	11	0	0	0	0	0	0	0	0	0	0	0	
7:30	2	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	
7:45	3	4	0	0	5	0	0	0	0	0	0	0	0	0	0	0	
8:00	3	4	0	0	8	0	0	0	0	0	0	0	0	0	0	0	
8:15	1	3	0	0	10	0	0	0	0	0	0	0	0	0	0	0	
8:30	3	4	0	0	13	0	0	0	0	6	1	0	0	0	0	0	
8:45	6	9	0	0	7	0	0	0	0	6	6	0	0	0	0	0	
9:00	1	5	0	0	7	0	0	0	0	6	4	0	0	0	0	0	
9:15	6	4	0	0	8	0	0	0	0	11	7	0	0	0	0	0	
9:30	4	5	0	0	7	0	1	0	0	4	7	0	0	0	0	0	
9:45	0	8	0	0	7	0	0	0	0	3	6	0	0	0	0	0	
11:00	7	4	0	0	10	0	0	0	0	5	14	0	0	0	0	0	
11:15	4	7	0	0	7	0	0	0	0	9	2	0	0	0	0	0	
11:30	5	3	0	0	6	0	0	0	0	8	10	0	0	0	0	0	
11:45	2	5	0	0	7	0	0	0	0	8	5	0	0	0	0	0	
12:00	4	6	0	0	9	0	0	0	0	4	7	0	0	0	0	0	
12:15	1	13	0	0	5	0	0	0	0	3	3	0	1	0	0	0	
12:30	5	7	0	1	5	0	0	0	0	6	5	0	1	0	0	0	
12:45	2	1	0	0	7	0	0	0	0	4	8	0	0	0	0	0	
15:00	3	0	0	1	2	0	0	0	0	1	11	0	0	0	0	0	
15:15	1	4	0	0	3	0	0	0	0	7	7	0	0	0	0	0	
15:30	3	3	0	0	3	0	0	0	0	3	5	0	0	0	0	0	
15:45	4	1	0	0	1	0	0	0	0	0	2	0	0	0	0	0	
16:00	2	2	0	0	2	0	0	0	0	1	6	0	0	0	0	0	
16:15	1	0	0	0	4	0	1	0	0	2	6	0	0	0	0	1	
16:30	4	1	0	0	2	0	0	0	0	2	11	0	0	0	0	0	
16:45	1	0	0	0	3	0	0	0	0	0	2	0	0	0	0	0	
17:00	2	1	0	0	2	0	0	0	0	1	4	0	0	0	0	0	
17:15	0	0	0	0	8	0	0	0	0	1	4	0	0	0	0	0	
17:30	0	2	0	0	2	0	0	0	0	0	4	0	0	0	0	0	
17:45	0	2	0	0	4	0	0	0	0	0	1	0	0	0	0	0	

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to

TURNING MOVEMENT COUNT: US 41 @ Airport Pulling Rd
 EAST/WEST ST: Airport Pulling Rd

TIME: 7am-6pm
 NORTH/SOUTH ST: US 41
 COUNTED BY: TM

ALL VEHICLES

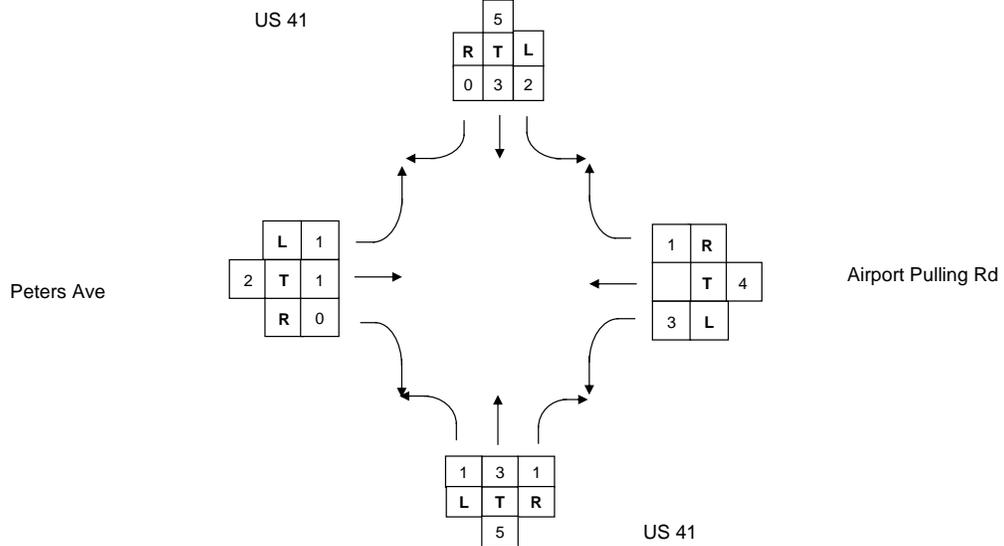
START TIME	NORTHBOUND					SOUTHBOUND					NS TOTAL	EASTBOUND					WESTBOUND					EW TOTAL	GRAND TOTAL
	LEFT	THRU	RIGHT	U-TURN	TOTAL	LEFT	THRU	RIGHT	U-TURN	TOTAL		LEFT	THRU	RIGHT	U-TURN	TOTAL	LEFT	THRU	RIGHT	U-TURN	TOTAL		
7:00	0	186	97	0	283	50	76	0	1	127	410	0	0	0	0	0	55	1	27	0	83	83	493
7:15	0	252	101	0	353	57	99	0	0	156	509	1	0	0	0	1	85	0	30	0	115	116	625
7:30	0	324	107	0	431	75	108	0	0	183	614	0	0	0	0	0	91	1	35	0	127	127	741
7:45	0	291	115	0	406	72	105	0	0	177	583	0	0	0	0	0	89	0	45	0	134	134	717
Total	0	1,053	420	0	1,473	254	388	0	1	643	2,116	1	0	0	0	1	320	2	137	0	459	460	2,576
8:00	0	277	120	0	397	71	139	0	0	210	607	1	0	0	0	1	125	1	48	0	174	175	782
8:15	0	240	137	0	377	59	142	0	1	202	579	0	0	0	0	0	94	0	32	0	126	126	705
8:30	0	298	154	1	453	60	132	0	3	195	648	1	2	0	0	3	131	1	50	0	182	185	833
8:45	1	208	158	2	369	93	132	0	1	226	595	0	3	1	0	4	96	0	44	0	140	144	739
Total	1	1,023	569	3	1,596	283	545	0	5	833	2,429	2	5	1	0	8	446	2	174	0	622	630	3,059
9:00	0	252	93	0	345	50	168	0	1	219	564	1	0	1	0	2	105	1	48	1	155	157	721
9:15	0	245	114	2	361	83	114	1	2	200	561	1	1	0	0	2	66	0	50	0	116	118	679
9:30	0	250	115	0	365	63	135	0	0	198	563	3	1	0	0	4	95	1	41	0	137	141	704
9:45	0	245	98	0	343	56	197	0	0	253	596	3	0	1	0	4	98	1	25	0	124	128	724
Total	0	992	420	2	1,414	252	614	1	3	870	2,284	8	2	2	0	12	364	3	164	1	532	544	2,828
11:00	0	222	153	2	377	70	173	0	1	244	621	1	0	0	0	1	99	1	52	0	152	153	774
11:15	0	230	97	2	329	64	231	4	1	300	629	1	1	0	0	2	143	0	58	0	201	203	832
11:30	0	242	124	1	367	77	199	0	2	278	645	1	0	0	0	1	137	1	70	0	208	209	854
11:45	0	222	136	1	359	88	201	0	1	290	649	1	2	1	0	4	140	0	51	0	191	195	844
Total	0	916	510	6	1,432	299	804	4	5	1,112	2,544	4	3	1	0	8	519	2	231	0	752	760	3,304
12:00	0	242	130	0	372	84	250	0	0	334	706	1	0	0	0	1	161	2	67	0	230	231	937
12:15	0	182	156	1	339	72	279	0	0	351	690	3	3	1	0	7	174	1	51	0	226	233	923
12:30	0	292	111	1	404	69	245	0	2	316	720	6	2	0	0	8	155	1	34	0	190	198	918
12:45	0	236	162	1	399	67	257	2	2	328	727	2	0	0	0	2	138	2	41	0	181	183	910
Total	0	952	559	3	1,514	292	1,031	2	4	1,329	2,843	12	5	1	0	18	628	6	193	0	827	845	3,688
15:00	0	259	123	1	383	92	261	0	5	358	741	5	1	2	0	8	166	0	52	0	218	226	967
15:15	0	219	124	3	346	67	298	0	5	370	716	1	2	1	0	4	140	1	50	0	191	195	911
15:30	0	252	85	1	338	84	269	0	3	356	694	2	2	1	0	5	151	1	53	0	205	210	904
15:45	0	240	79	0	319	73	297	0	4	374	693	0	2	0	0	2	187	2	46	0	235	237	930
Total	0	970	411	5	1,386	316	1,125	0	17	1,458	2,844	8	7	4	0	19	644	4	201	0	849	868	3,712
16:00	1	211	123	2	337	66	294	0	4	364	701	4	1	1	0	6	138	1	55	0	194	200	901
16:15	0	230	120	1	351	66	303	0	2	371	722	4	0	2	0	6	195	1	70	1	267	273	995
16:30	0	280	152	1	433	98	301	0	6	405	838	1	1	1	0	3	134	1	60	1	196	199	1,037
16:45	0	228	97	0	325	49	295	0	1	345	670	0	2	1	0	3	123	7	58	1	189	192	862
Total	1	949	492	4	1,446	279	1,193	0	13	1,485	2,931	9	4	5	0	18	590	10	243	3	846	864	3,795
17:00	0	274	151	0	425	66	288	0	6	360	785	1	0	0	0	1	205	3	46	0	254	255	1,040
17:15	0	203	150	1	354	82	335	0	2	419	773	0	1	1	0	2	231	1	78	0	310	312	1,085
17:30	0	199	113	0	312	80	290	0	3	373	685	1	3	1	0	5	138	1	46	0	185	190	875
17:45	0	196	69	0	265	59	240	0	1	300	565	0	1	1	0	2	144	1	56	0	201	203	768
Total	0	872	483	1	1,356	287	1,153	0	12	1,452	2,808	2	5	3	0	10	718	6	226	0	950	960	3,768

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail

SUMMARY OF VEHICLE MOVEMENTS

SECTION: N/A CITY: Naples COUNTY: Collier
 INTR ROUTE: Airport Pulling Rd / Peters Ave STATE ROUTE: US 41
 OBSERVER: TM DATE: 06/06/17 MILEPOST:
 WEATHER: Rainy ROAD CONDITION: Good / Wet
 REMARKS:

FORM COMPLETED BY: TM DATE: 06/19/17



TIME	NORTHBOUND					SOUTHBOUND					TOTAL	EASTBOUND					WESTBOUND					TOT
	L	T	R	U	TOT	L	T	R	U	TOT		N/S	L	T	R	U	TOT	L	T	R	U	
7 - 8	0	1,053	420	0	1,473	254	388	0	1	643	2,116	1	0	0	0	1	320	2	137	0	459	
8 - 9	1	1,023	569	3	1,596	283	545	0	5	833	2,429	2	5	1	0	8	446	2	174	0	622	
9 - 10	0	992	420	2	1,414	252	614	1	3	870	2,284	8	2	2	0	12	364	3	164	1	532	
11 - 12	0	916	510	6	1,432	299	804	4	5	1,112	2,544	4	3	1	0	8	519	2	231	0	752	
12 - 1	0	952	559	3	1,514	292	1,031	2	4	1,329	2,843	12	5	1	0	18	628	6	193	0	827	
3 - 4	0	970	411	5	1,386	316	1,125	0	17	1,458	2,844	8	7	4	0	19	644	4	201	0	849	
4 - 5	1	949	492	4	1,446	279	1,193	0	13	1,485	2,931	9	4	5	0	18	590	10	243	3	846	
5 - 6	0	872	483	1	1,356	287	1,153	0	12	1,452	2,808	2	5	3	0	10	718	6	226	0	950	
TOTAL	2	7,727	3,864	24	11,617	2,262	6,853	7	60	9,182	20,799	46	31	17	0	94	4,229	35	1,569	4	5,837	

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to

FLORIDA DEPARTMENT OF TRANSPORTATION

PEDESTRIAN MOVEMENT SUMMARY

SECTION: N/A CITY: Naples COUNTY: Collier
 INTER. ROUTE: Airport Pulling Rd / Peters Ave STATE ROUTE: US 41
 OBSERVER: TM DATE: 06/06/17

REMARKS: _____

FORM COMPLETED BY: TM

DATE: 06/19/17

US 41



	7-8	8-9	9-1	11-12	12-1	3-4	4-5	5-6	Total
	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	1	0	1
	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	1	0	1

	7-8	8-9	9-10	11-12	12-1
	0	1	3	2	3
	0	0	0	0	0
	2	4	1	6	2
	0	0	0	0	0
	0	3	2	6	3
	0	0	0	0	0
	1	1	0	2	1
	0	1	0	1	0
Total	3	14	4	25	46

Airport Pulling Rd / Peters Ave

	7-8	8-9	9-10	11-12	12-1
	0	0	3	2	0
	2	0	1	1	0
	1	0	0	0	0
	0	1	0	0	0
	3	2	0	0	3
	0	2	0	0	0
	0	1	2	3	1
	2	1	1	1	2
Total	6	10	8	7	31

	7-8	8-9	9-1	11-12	12-1	3-4	4-5	5-6	Total
	0	0	0	0	0	0	0	0	0
	1	0	0	2	0	2	0	0	5
	2	0	0	0	0	0	2	0	4
	0	0	0	0	0	1	0	2	3
Total	3	0	0	2	0	3	2	2	12

US 41

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to

HNTB

201 Franklin St
Suite #1200
Tampa FL 33602

Counter: TDC ULTRA
Counted By: Jason A.
Weather: Cloudy
Day of the Week: Tuesday

File Name : US 41 @ Espinal Blvd TMC jas
Site Code : 00000000
Start Date : 6/6/2017
Page No : 1

Groups Printed- CARS - TRUCKS

Start Time	US41 Southbound					Espinal Blvd Westbound					US41 Northbound					Shopping Center Eastbound					Int. Tc
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
07:00 AM	8	107	8	1	124	4	0	2	0	6	9	268	14	0	291	3	0	9	3	15	45
07:15 AM	9	146	14	1	170	0	0	3	0	3	14	331	10	0	355	2	0	11	2	15	54
07:30 AM	7	147	9	5	168	9	0	5	0	14	17	364	17	0	398	1	0	10	0	11	59
07:45 AM	9	147	10	6	172	1	0	2	0	3	33	414	10	0	457	3	0	9	3	15	64
Total	33	547	41	13	634	14	0	12	0	26	73	1377	51	0	1501	9	0	39	8	56	221
08:00 AM	11	186	20	3	220	2	0	2	0	4	19	333	10	0	362	3	0	9	0	12	59
08:15 AM	12	187	16	8	223	1	1	3	0	5	16	392	13	1	422	3	1	10	1	15	69
08:30 AM	15	183	15	9	222	0	0	4	0	4	11	371	12	0	394	2	0	4	0	6	62
08:45 AM	6	222	14	8	250	5	0	6	0	11	11	310	11	1	333	6	0	18	1	25	61
Total	44	778	65	28	915	8	1	15	0	24	57	1406	46	2	1511	14	1	41	2	58	250
09:00 AM	11	195	14	2	222	3	1	6	1	11	10	312	9	1	332	3	2	4	0	9	57
09:15 AM	9	183	9	1	202	7	0	9	0	16	8	261	6	1	276	3	1	12	0	16	57
09:30 AM	11	159	16	4	190	7	0	6	0	13	8	279	7	2	296	3	1	10	0	14	57
09:45 AM	7	230	12	0	249	3	0	4	0	7	9	294	6	0	309	1	0	11	3	15	58
Total	38	767	51	7	863	20	1	25	1	47	35	1146	28	4	1213	10	4	37	3	54	217
11:00 AM	9	249	20	1	279	10	2	9	0	21	9	299	4	4	316	2	1	7	0	10	62
11:15 AM	7	305	19	2	333	7	1	10	0	18	11	294	6	1	312	4	1	6	0	11	67
11:30 AM	8	275	11	2	296	3	1	5	0	9	3	339	5	2	349	6	2	1	0	9	69
11:45 AM	8	278	20	0	306	0	3	22	1	26	13	317	3	2	335	2	1	7	0	10	67
Total	32	1107	70	5	1214	20	7	46	1	74	36	1249	18	9	1312	14	5	21	0	40	264
12:00 PM	16	319	25	3	363	11	0	20	0	31	10	296	11	0	317	7	0	7	1	15	72
12:15 PM	15	318	27	5	365	5	0	14	0	19	20	300	6	0	326	3	0	11	2	16	72
12:30 PM	13	303	21	6	343	7	0	16	0	23	12	350	5	0	367	3	0	13	0	16	74
12:45 PM	12	263	26	6	307	9	0	11	0	20	17	314	7	0	338	0	0	12	4	16	68
Total	56	1203	99	20	1378	32	0	61	0	93	59	1260	29	0	1348	13	0	43	7	63	288
03:00 PM	12	339	26	2	379	8	0	15	0	23	8	252	3	5	268	9	0	6	0	15	68
03:15 PM	12	318	27	1	358	8	1	7	1	17	9	245	3	0	257	6	1	2	0	9	64
03:30 PM	7	381	30	0	418	9	1	11	1	22	5	248	0	4	257	4	1	2	0	7	70
03:45 PM	7	389	29	2	427	7	3	9	0	19	12	245	6	5	268	4	2	4	0	10	72
Total	38	1427	112	5	1582	32	5	42	2	81	34	990	12	14	1050	23	4	14	0	41	275
04:00 PM	3	412	29	3	447	7	2	21	0	30	5	213	9	5	232	3	0	7	0	10	71
04:15 PM	7	366	35	3	411	8	0	12	1	21	2	239	1	0	242	4	0	5	3	12	68
04:30 PM	8	394	17	1	420	14	4	23	0	41	3	214	3	0	220	5	0	1	1	7	68
04:45 PM	8	355	25	5	393	15	1	17	0	33	4	246	3	2	255	3	0	4	3	10	69
Total	26	1527	106	12	1671	44	7	73	1	125	14	912	16	7	949	15	0	17	7	39	278
05:00 PM	5	397	30	6	438	22	0	61	0	83	4	213	6	0	223	4	0	6	1	11	75
05:15 PM	3	481	27	4	515	12	0	19	0	31	3	216	3	0	222	9	0	4	1	14	78
05:30 PM	4	374	21	2	401	6	0	10	0	16	4	196	5	7	212	5	1	2	0	8	63
05:45 PM	5	312	25	5	347	7	0	6	0	13	5	201	3	5	214	3	1	1	0	5	57
Total	17	1564	103	17	1701	47	0	96	0	143	16	826	17	12	871	21	2	13	2	38	275
Grand Total	284	8920	647	107	9958	217	21	370	5	613	324	9166	217	48	9755	119	16	225	29	389	2071
Apprch %	2.9	89.6	6.5	1.1		35.4	3.4	60.4	0.8		3.3	94	2.2	0.5		30.6	4.1	57.8	7.5		
Total %	1.4	43.1	3.1	0.5	48.1	1	0.1	1.8	0	3	1.6	44.2	1	0.2	47.1	0.6	0.1	1.1	0.1	1.9	
CARS	282	8863	607	106	9858	181	21	345	5	552	295	9080	215	47	9637	117	16	223	29	385	2043
% CARS	99.3	99.4	93.8	99.1	99	83.4	100	93.2	100	90	91	99.1	99.1	97.9	98.8	98.3	100	99.1	100	99	98
TRUCKS	2	57	40	1	100	36	0	25	0	61	29	86	2	1	118	2	0	2	0	4	28
% TRUCKS	0.7	0.6	6.2	0.9	1	16.6	0	6.8	0	10	9	0.9	0.9	2.1	1.2	1.7	0	0.9	0	1	1

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to

HNTB

201 Franklin St
Suite #1200
Tampa FL 33602

Counter: TDC ULTRA
Counted By: Jason A.
Weather: Cloudy
Day of the Week: Tuesday

File Name : US 41 @ Espinal Blvd TMC jas
Site Code : 00000000
Start Date : 6/6/2017
Page No : 2

Start Time	US41 Southbound					Espinal Blvd Westbound					US41 Northbound					Shopping Center Eastbound					Int. Tc
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
Peak Hour Analysis From 07:00 AM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	04:30 PM					04:30 PM					07:30 AM					08:45 AM					
+0 mins.	8	394	17	1	420	14	4	23	0	41	17	364	17	0	398	6	0	18	1	25	
+15 mins.	8	355	25	5	393	15	1	17	0	33	33	414	10	0	457	3	2	4	0	9	
+30 mins.	5	397	30	6	438	22	0	61	0	83	19	333	10	0	362	3	1	12	0	16	
+45 mins.	3	481	27	4	515	12	0	19	0	31	16	392	13	1	422	3	1	10	0	14	
Total Volume	24	1627	99	16	1766	63	5	120	0	188	85	1503	50	1	1639	15	4	44	1	64	
% App. Total	1.4	92.1	5.6	0.9		33.5	2.7	63.8	0		5.2	91.7	3.1	0.1		23.4	6.2	68.8	1.6		
PHF	.750	.846	.825	.667	.857	.716	.313	.492	.000	.566	.644	.908	.735	.250	.897	.625	.500	.611	.250	.640	

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to

Street Name	SB (US 41)				WB (Espinal Blvd)				NB (US 41)				EB (Shopping Center)			
	Start Time	Left	Thru	Right	U Turn	Left	Thru	Right	U Turn	Left	Thru	Right	U Turn	Left	Thru	Right
7:00	6	104	8	1	1	0	2	0	14	262	9	0	9	0	3	
7:15	10	144	9	1	3	0	0	0	10	329	13	0	11	0	2	
7:30	9	145	7	5	2	0	6	0	16	363	17	0	9	0	1	
7:45	9	147	9	6	2	0	1	0	10	413	30	0	9	0	3	
8:00	20	183	11	3	2	0	0	0	10	332	19	0	9	0	3	
8:15	15	185	12	8	3	1	1	0	13	386	15	1	10	1	3	
8:30	14	181	15	9	2	0	0	0	12	370	11	0	4	0	2	
8:45	11	222	6	8	6	0	5	0	11	307	9	1	18	0	6	
9:00	14	191	11	2	5	1	1	1	9	306	10	1	4	2	3	
9:15	7	183	9	1	9	0	7	0	6	257	7	1	12	1	3	
9:30	14	153	11	4	4	0	6	0	7	274	8	2	10	1	3	
9:45	12	227	7	0	4	0	3	0	6	293	7	0	11	0	1	
11:00	19	246	8	1	8	2	6	0	4	293	8	4	6	1	2	
11:15	19	302	7	1	9	1	7	0	6	292	9	1	6	1	4	
11:30	11	272	7	2	4	1	3	0	5	335	3	2	1	2	6	
11:45	16	274	8	0	22	3	0	1	3	315	10	2	7	1	1	
12:00	23	313	16	3	19	0	7	0	11	295	10	0	7	0	7	
12:15	24	317	15	5	13	0	3	0	6	299	19	0	11	0	3	
12:30	20	301	13	6	14	0	7	0	5	347	12	0	13	0	3	
12:45	26	263	12	6	11	0	8	0	7	312	14	0	12	0	0	
15:00	26	339	12	2	14	0	3	0	3	247	8	5	6	0	9	
15:15	24	317	12	1	7	1	8	1	3	236	8	0	2	1	6	
15:30	30	378	7	0	9	1	8	1	0	246	5	4	2	1	4	
15:45	29	389	7	2	9	3	7	0	6	243	10	5	4	2	4	
16:00	29	410	3	3	20	2	6	0	8	210	5	4	7	0	3	
16:15	31	366	7	3	12	0	8	1	1	237	1	0	5	0	4	
16:30	16	393	8	1	21	4	11	0	3	213	3	0	1	0	5	
16:45	24	355	8	5	17	1	15	0	3	245	2	2	4	0	3	
17:00	30	396	5	6	60	0	19	0	6	212	4	0	6	0	4	
17:15	26	481	3	4	19	0	12	0	3	216	2	0	4	0	8	
17:30	20	374	4	2	8	0	6	0	5	195	4	7	2	1	5	
17:45	23	312	5	5	6	0	5	0	3	200	3	5	1	1	3	

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to

Trucks

Street Name	SB (US 41)				WB (Espinal Blvd)				NB (US 41)				EB (Shopping Center)				
	Start Time	Left	Thru	Right	U Turn	Left	Thru	Right	U Turn	Left	Thru	Right	U Turn	Left	Thru	Right	U Tu
7:00	2	3	0	0	1	0	2	0	0	6	0	0	0	0	0	0	
7:15	4	2	0	0	0	0	0	0	0	2	1	0	0	0	0	0	
7:30	0	2	0	0	3	0	3	0	1	1	0	0	1	0	0	0	
7:45	1	0	0	0	0	0	0	0	0	1	3	0	0	0	0	0	
8:00	0	3	0	0	0	0	2	0	0	1	0	0	0	0	0	0	
8:15	1	2	0	0	0	0	0	0	0	6	1	0	0	0	0	0	
8:30	1	2	0	0	2	0	0	0	0	1	0	0	0	0	0	0	
8:45	3	0	0	0	0	0	0	0	0	3	2	0	0	0	0	0	
9:00	0	4	0	0	1	0	2	0	0	6	0	0	0	0	0	0	
9:15	2	0	0	0	0	0	0	0	0	4	1	0	0	0	0	0	
9:30	2	6	0	0	2	0	1	0	0	5	0	0	0	0	0	0	
9:45	0	3	0	0	0	0	0	0	0	1	2	0	0	0	0	0	
11:00	1	3	1	0	1	0	4	0	0	6	1	0	1	0	0	0	
11:15	0	3	0	1	1	0	0	0	0	2	2	0	0	0	0	0	
11:30	0	3	1	0	1	0	0	0	0	4	0	0	0	0	0	0	
11:45	4	4	0	0	0	0	0	0	0	2	3	0	0	0	0	1	
12:00	2	6	0	0	1	0	4	0	0	1	0	0	0	0	0	0	
12:15	3	1	0	0	1	0	2	0	0	1	1	0	0	0	0	0	
12:30	1	2	0	0	2	0	0	0	0	3	0	0	0	0	0	0	
12:45	0	0	0	0	0	0	1	0	0	2	3	0	0	0	0	0	
15:00	0	0	0	0	1	0	5	0	0	5	0	0	0	0	0	0	
15:15	3	1	0	0	0	0	0	0	0	9	1	0	0	0	0	0	
15:30	0	3	0	0	2	0	1	0	0	2	0	0	0	0	0	0	
15:45	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	
16:00	0	2	0	0	1	0	1	0	1	3	0	1	0	0	0	0	
16:15	4	0	0	0	0	0	0	0	0	2	1	0	0	0	0	0	
16:30	1	1	0	0	2	0	3	0	0	1	0	0	0	0	0	0	
16:45	1	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	
17:00	0	1	0	0	1	0	3	0	0	1	0	0	0	0	0	0	
17:15	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	
17:30	1	0	0	0	2	0	0	0	0	1	0	0	0	0	0	0	
17:45	2	0	0	0	0	0	2	0	0	1	2	0	0	0	0	0	

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to

TURNING MOVEMENT COUNT:U
EAST/WEST ST:Espinal Blvd / Shopping center

TIME: 7am-6pm
NORTH/SOUTH ST:US 41
COUNTED BY: Jason + Sierra

ALL VEHICLES

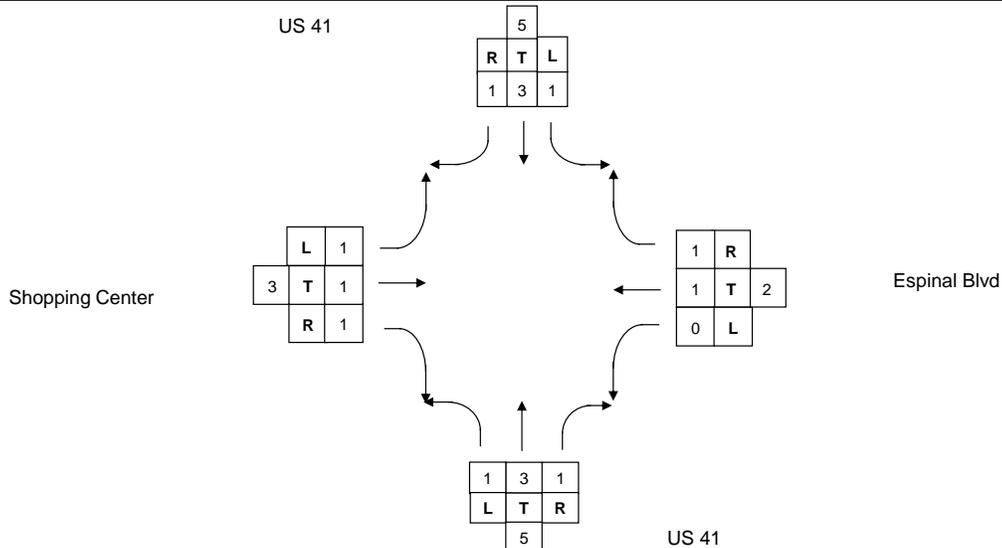
START TIME	NORTHBOUND					SOUTHBOUND					NS TOTAL	EASTBOUND					WESTBOUND					EW TOTAL	GRAND TOTAL
	LEFT	THRU	RIGHT	U-TURN	TOTAL	LEFT	THRU	RIGHT	U-TURN	TOTAL		LEFT	THRU	RIGHT	U-TURN	TOTAL	LEFT	THRU	RIGHT	U-TURN	TOTAL		
7:00	14	268	9	0	291	8	107	8	1	124	415	9	0	3	3	15	2	0	4	0	6	21	436
7:15	10	331	14	0	355	14	146	9	1	170	525	11	0	2	2	15	3	0	0	0	3	18	543
7:30	17	364	17	0	398	9	147	7	5	168	566	10	0	1	0	11	5	0	9	0	14	25	591
7:45	10	414	33	0	457	10	147	9	6	172	629	9	0	3	3	15	2	0	1	0	3	18	647
Total	51	1,377	73	0	1,501	41	547	33	13	634	2,135	39	0	9	8	56	12	0	14	0	26	82	2,217
8:00	10	333	19	0	362	20	186	11	3	220	582	9	0	3	0	12	2	0	2	0	4	16	598
8:15	13	392	16	1	422	16	187	12	8	223	645	10	1	3	1	15	3	1	1	0	5	20	665
8:30	12	371	11	0	394	15	183	15	9	222	616	4	0	2	0	6	4	0	0	0	4	10	626
8:45	11	310	11	1	333	14	222	6	8	250	583	18	0	6	1	25	6	0	5	0	11	36	619
Total	46	1,406	57	2	1,511	65	778	44	28	915	2,426	41	1	14	2	58	15	1	8	0	24	82	2,508
9:00	9	312	10	1	332	14	195	11	2	222	554	4	2	3	0	9	6	1	3	1	11	20	574
9:15	6	261	8	1	276	9	183	9	1	202	478	12	1	3	0	16	9	0	7	0	16	32	510
9:30	7	279	8	2	296	16	159	11	4	190	486	10	1	3	0	14	6	0	7	0	13	27	513
9:45	6	294	9	0	309	12	230	7	0	249	558	11	0	1	3	15	4	0	3	0	7	22	580
Total	28	1,146	35	4	1,213	51	767	38	7	863	2,076	37	4	10	3	54	25	1	20	1	47	101	2,177
11:00	4	299	9	4	316	20	249	9	1	279	595	7	1	2	0	10	9	2	10	0	21	31	626
11:15	6	294	11	1	312	19	305	7	2	333	645	6	1	4	0	11	10	1	7	0	18	29	674
11:30	5	339	3	2	349	11	275	8	2	296	645	1	2	6	0	9	5	1	3	0	9	18	663
11:45	3	317	13	2	335	20	278	8	0	306	641	7	1	2	0	10	22	3	0	1	26	36	677
Total	18	1,249	36	9	1,312	70	1,107	32	5	1,214	2,526	21	5	14	0	40	46	7	20	1	74	114	2,640
12:00	11	296	10	0	317	25	319	16	3	363	680	7	0	7	1	15	20	0	11	0	31	46	726
12:15	6	300	20	0	326	27	318	15	5	365	691	11	0	3	2	16	14	0	5	0	19	35	726
12:30	5	350	12	0	367	21	303	13	6	343	710	13	0	3	0	16	16	0	7	0	23	39	749
12:45	7	314	17	0	338	26	263	12	6	307	645	12	0	0	4	16	11	0	9	0	20	36	681
Total	29	1,260	59	0	1,348	99	1,203	56	20	1,378	2,726	43	0	13	7	63	61	0	32	0	93	156	2,882
15:00	3	252	8	5	268	26	339	12	2	379	647	6	0	9	0	15	15	0	8	0	23	38	685
15:15	3	245	9	0	257	27	318	12	1	358	615	2	1	6	0	9	7	1	8	1	17	26	641
15:30	0	248	5	4	257	30	381	7	0	418	675	2	1	4	0	7	11	1	9	1	22	29	704
15:45	6	245	12	5	268	29	389	7	2	427	695	4	2	4	0	10	9	3	7	0	19	29	724
Total	12	990	34	14	1,050	112	1,427	38	5	1,582	2,632	14	4	23	0	41	42	5	32	2	81	122	2,754
16:00	9	213	5	5	232	29	412	3	3	447	679	7	0	3	0	10	21	2	7	0	30	40	719
16:15	1	239	2	0	242	35	366	7	3	411	653	5	0	4	3	12	12	0	8	1	21	33	686
16:30	3	214	3	0	220	17	394	8	1	420	640	1	0	5	1	7	23	4	14	0	41	48	688
16:45	3	246	4	2	255	25	355	8	5	393	648	4	0	3	3	10	17	1	15	0	33	43	691
Total	16	912	14	7	949	106	1,527	26	12	1,671	2,620	17	0	15	7	39	73	7	44	1	125	164	2,784
17:00	6	213	4	0	223	30	397	5	6	438	661	6	0	4	1	11	61	0	22	0	83	94	755
17:15	3	216	3	0	222	27	481	3	4	515	737	4	0	9	1	14	19	0	12	0	31	45	782
17:30	5	196	4	7	212	21	374	4	2	401	613	2	1	5	0	8	10	0	6	0	16	24	637
17:45	3	201	5	5	214	25	312	5	5	347	561	1	1	3	0	5	6	0	7	0	13	18	579
Total	17	826	16	12	871	103	1,564	17	17	1,701	2,572	13	2	21	2	38	96	0	47	0	143	181	2,753

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail

SUMMARY OF VEHICLE MOVEMENTS

SECTION: N/A CITY: Naples COUNTY: Collier
 INTR ROUTE: Espinal Blvd STATE ROUTE: US 41
 OBSERVER: Jason + Sierra DATE: 06/06/17 MILEPOST:
 WEATHER: Cloudy / Rain ROAD CONDITION: Good / Wet
 REMARKS:

FORM COMPLETED BY: TM DATE: 06/19/17



TIME	NORTHBOUND					SOUTHBOUND					TOTAL	EASTBOUND					WESTBOUND					TOT
	BEGIN/END	L	T	R	U	TOT	L	T	R	U		TOT	N/S	L	T	R	U	TOT	L	T	R	
7 - 8	51	1,377	73	0	1,501	41	547	33	13	634	2,135	39	0	9	8	56	12	0	14	0	26	
8 - 9	46	1,406	57	2	1,511	65	778	44	28	915	2,426	41	1	14	2	58	15	1	8	0	24	
9 - 10	28	1,146	35	4	1,213	51	767	38	7	863	2,076	37	4	10	3	54	25	1	20	1	47	
11 - 12	18	1,249	36	9	1,312	70	1,107	32	5	1,214	2,526	21	5	14	0	40	46	7	20	1	74	
12 - 1	29	1,260	59	0	1,348	99	1,203	56	20	1,378	2,726	43	0	13	7	63	61	0	32	0	93	
3 - 4	12	990	34	14	1,050	112	1,427	38	5	1,582	2,632	14	4	23	0	41	42	5	32	2	81	
4 - 5	16	912	14	7	949	106	1,527	26	12	1,671	2,620	17	0	15	7	39	73	7	44	1	125	
5 - 6	17	826	16	12	871	103	1,564	17	17	1,701	2,572	13	2	21	2	38	96	0	47	0	143	
TOTAL	217	9,166	324	48	9,755	647	8,920	284	107	9,958	19,713	225	16	119	29	389	370	21	217	5	613	1.

Attachment: Draft Arterial Safety Analysis Study (4984 - Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to

FLORIDA DEPARTMENT OF TRANSPORTATION

PEDESTRIAN MOVEMENT SUMMARY

SECTION: N/A CITY: Naples COUNTY: Collier
 INTER. ROUTE: Espinal Blvd STATE ROUTE: US 41
 OBSERVER: Jason + Sierra DATE: 06/06/17

REMARKS: _____

FORM COMPLETED BY: TM

DATE: 06/19/17

US 41



	7-8	8-9	9-1	11-12	12-1	3-4	4-5	5-6	Total
	0	3	2	0	2	3	1	0	11
	0	1	1	2	2	0	0	0	6
	2	1	1	2	5	0	2	1	14
	0	1	1	4	2	1	0	1	10
Total	2	6	5	8	11	4	3	2	41

	7-8	8-9	9-10	11-12	12-1	3-4	4-5	5-6	Total
	1	0	2	0	3				
	0	1	0	2	3				
	4	2	0	1	7				
	0	2	0	3	5				
	0	1	4	4	9				
	3	3	2	2	10				
	3	1	2	2	8				
	2	1	0	1	4				
Total	13	11	10	15	49				

Espinal Blvd / Shopping Center

	7-8	8-9	9-10	11-12	12-1	3-4	4-5	5-6	Total
	4	0	3	2	9				
	1	4	0	1	6				
	3	2	0	4	9				
	1	4	0	2	7				
	0	2	1	2	5				
	5	5	0	5	15				
	3	1	0	2	6				
	2	3	4	2	11				
Total	19	21	8	20	68				

	7-8	8-9	9-1	11-12	12-1	3-4	4-5	5-6	Total
	2	0	0	3	0	3	2	1	11
	0	1	0	1	0	1	2	1	6
	0	0	0	2	0	0	0	1	3
	0	0	0	2	1	2	0	1	6
Total	2	1	0	8	1	6	4	4	26

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to

HNTB

201 Franklin St
Suite #1200
Tampa FL 33602

Counter:TDC ULTRA
Counted By: Travis S
Weather: Rain
Day of the Week:Wednesday

File Name : US 41 @ Palm Dr TMC tra
Site Code : 00000000
Start Date : 6/7/2017
Page No : 1

Groups Printed- CARS - TRUCKS

Start Time	US 41 Southbound					PALM DRIVE Westbound					US 41 Northbound					PALM DRIVE Eastbound					Int. Tc
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
07:00 AM	0	136	3	5	144	5	0	3	0	8	9	289	0	1	299	1	0	0	0	1	4
07:15 AM	0	157	4	5	166	5	0	3	0	8	5	358	1	0	364	0	0	0	0	0	5
07:30 AM	0	203	8	5	216	6	1	7	0	14	6	403	0	0	409	0	0	0	0	0	6
07:45 AM	0	187	8	11	206	10	0	4	0	14	6	460	1	0	467	0	0	0	0	0	6
Total	0	683	23	26	732	26	1	17	0	44	26	1510	2	1	1539	1	0	0	0	1	23
08:00 AM	0	172	6	2	180	9	0	4	0	13	5	368	0	1	374	2	0	0	0	2	5
08:15 AM	0	184	8	2	194	7	1	9	0	17	6	421	0	1	428	1	0	0	0	1	6
08:30 AM	1	188	9	4	202	10	0	12	0	22	10	399	0	1	410	0	0	1	0	1	6
08:45 AM	0	213	10	9	232	11	0	10	0	21	5	337	0	1	343	0	0	0	0	0	5
Total	1	757	33	17	808	37	1	35	0	73	26	1525	0	4	1555	3	0	1	0	4	24
09:00 AM	0	194	5	3	202	7	0	11	0	18	6	332	0	1	339	1	0	1	0	2	5
09:15 AM	0	191	11	3	205	6	0	17	0	23	9	277	0	0	286	0	0	0	0	0	5
09:30 AM	0	235	16	3	254	15	0	18	0	33	13	300	1	1	315	0	1	0	0	1	6
09:45 AM	0	238	19	3	260	19	0	12	0	31	11	315	0	0	326	2	0	1	0	3	6
Total	0	858	51	12	921	47	0	58	0	105	39	1224	1	2	1266	3	1	2	0	6	22
11:00 AM	0	291	22	2	315	9	0	21	0	30	13	314	1	0	328	1	0	0	0	1	6
11:15 AM	0	287	23	4	314	9	0	22	0	31	11	318	0	1	330	2	0	0	0	2	6
11:30 AM	0	296	31	4	331	11	0	17	0	28	12	349	1	4	366	1	0	0	0	1	7
11:45 AM	1	321	22	9	353	14	0	26	0	40	17	339	1	3	360	2	0	0	0	2	7
Total	1	1195	98	19	1313	43	0	86	0	129	53	1320	3	8	1384	6	0	0	0	6	28
12:00 PM	2	371	28	6	407	17	0	20	0	37	12	319	0	1	332	0	0	0	0	0	7
12:15 PM	0	340	23	4	367	18	0	27	0	45	14	328	2	3	347	1	2	0	0	3	7
12:30 PM	0	318	29	8	355	17	0	15	0	32	15	366	0	0	381	0	0	0	0	0	7
12:45 PM	0	334	26	2	362	15	0	46	0	61	18	342	0	0	360	0	0	1	0	1	7
Total	2	1363	106	20	1491	67	0	108	0	175	59	1355	2	4	1420	1	2	1	0	4	30
03:00 PM	0	433	10	0	443	6	0	18	0	24	13	266	0	0	279	0	0	0	0	0	7
03:15 PM	0	430	18	3	451	11	0	20	0	31	10	249	0	1	260	2	0	0	0	2	7
03:30 PM	0	419	9	2	430	10	0	21	0	31	7	261	0	5	273	0	0	0	0	0	7
03:45 PM	0	368	17	3	388	12	1	17	0	30	6	272	0	0	278	1	0	0	0	1	6
Total	0	1650	54	8	1712	39	1	76	0	116	36	1048	0	6	1090	3	0	0	0	3	29
04:00 PM	0	407	16	4	427	9	0	21	1	31	7	230	0	0	237	0	0	0	0	0	6
04:15 PM	0	370	22	5	397	7	0	19	0	26	13	245	0	2	260	0	0	0	0	0	6
04:30 PM	0	349	29	4	382	6	0	15	0	21	6	222	0	1	229	0	0	0	0	0	6
04:45 PM	0	349	20	1	370	9	0	11	0	20	16	257	0	0	273	1	0	0	0	1	6
Total	0	1475	87	14	1576	31	0	66	1	98	42	954	0	3	999	1	0	0	0	1	26
05:00 PM	0	447	8	5	460	6	0	14	0	20	12	224	0	1	237	1	0	0	0	1	7
05:15 PM	0	433	17	1	451	11	0	11	0	22	16	224	1	4	245	0	0	0	0	0	7
05:30 PM	0	332	21	4	357	6	0	10	0	16	7	212	0	0	219	0	0	0	0	0	5
05:45 PM	0	292	16	4	312	8	0	24	0	32	7	218	0	0	225	0	0	0	0	0	5
Total	0	1504	62	14	1580	31	0	59	0	90	42	878	1	5	926	1	0	0	0	1	25
Grand Total	4	9485	514	130	10133	321	3	505	1	830	323	9814	9	33	10179	19	3	4	0	26	211
Apprch %	0	93.6	5.1	1.3		38.7	0.4	60.8	0.1		3.2	96.4	0.1	0.3		73.1	11.5	15.4	0		
Total %	0	44.8	2.4	0.6	47.9	1.5	0	2.4	0	3.9	1.5	46.4	0	0.2	48.1	0.1	0	0	0	0.1	
CARS	4	9357	504	127	9992	313	2	494	1	810	319	9669	9	33	10030	17	3	4	0	24	208
% CARS	100	98.7	98.1	97.7	98.6	97.5	66.7	97.8	100	97.6	98.8	98.5	100	100	98.5	89.5	100	100	0	92.3	98
TRUCKS	0	128	10	3	141	8	1	11	0	20	4	145	0	0	149	2	0	0	0	2	3
% TRUCKS	0	1.3	1.9	2.3	1.4	2.5	33.3	2.2	0	2.4	1.2	1.5	0	0	1.5	10.5	0	0	0	7.7	1

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to

HNTB

201 Franklin St
Suite #1200
Tampa FL 33602

Counter:TDC ULTRA
Counted By: Travis S
Weather: Rain
Day of the Week:Wednesday

File Name : US 41 @ Palm Dr TMC tra
Site Code : 00000000
Start Date : 6/7/2017
Page No : 2

Start Time	US 41 Southbound					PALM DRIVE Westbound					US 41 Northbound					PALM DRIVE Eastbound					Int. Tc
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
Peak Hour Analysis From 07:00 AM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	03:00 PM					12:00 PM					07:45 AM					09:00 AM					
+0 mins.	0	433	10	0	443	17	0	20	0	37	6	460	1	0	467	1	0	1	0	2	
+15 mins.	0	430	18	3	451	18	0	27	0	45	5	368	0	1	374	0	0	0	0	0	
+30 mins.	0	419	9	2	430	17	0	15	0	32	6	421	0	1	428	0	1	0	0	1	
+45 mins.	0	368	17	3	388	15	0	46	0	61	10	399	0	1	410	2	0	1	0	3	
Total Volume	0	1650	54	8	1712	67	0	108	0	175	27	1648	1	3	1679	3	1	2	0	6	
% App. Total	0	96.4	3.2	0.5		38.3	0	61.7	0		1.6	98.2	0.1	0.2		50	16.7	33.3	0		
PHF	.000	.953	.750	.667	.949	.931	.000	.587	.000	.717	.675	.896	.250	.750	.899	.375	.250	.500	.000	.500	

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to

Street Name	SB (US 41)				WB (Palm Dr)				NB (US 41)				EB (Palm Dr)				
	Start Time	Left	Thru	Right	U Turn	Left	Thru	Right	U Turn	Left	Thru	Right	U Turn	Left	Thru	Right	U Tu
7:00	3	131	0	4	3	0	5	0	0	285	8	1	0	0	0	1	
7:15	4	147	0	5	3	0	4	0	1	353	5	0	0	0	0	0	
7:30	8	196	0	5	7	1	6	0	0	397	5	0	0	0	0	0	
7:45	8	183	0	11	4	0	10	0	1	456	6	0	0	0	0	0	
8:00	6	170	0	2	4	0	9	0	0	361	5	1	0	0	0	2	
8:15	6	181	0	2	9	1	7	0	0	416	6	1	0	0	0	1	
8:30	8	182	1	4	11	0	9	0	0	393	10	1	1	0	0	0	
8:45	10	207	0	8	10	0	11	0	0	330	5	1	0	0	0	0	
9:00	5	190	0	3	11	0	6	0	0	326	6	1	1	0	0	1	
9:15	11	186	0	3	17	0	6	0	0	272	9	0	0	0	0	0	
9:30	15	227	0	3	18	0	15	0	1	291	13	1	0	1	0	0	
9:45	19	233	0	2	10	0	17	0	0	308	11	0	1	0	0	1	
11:00	22	285	0	2	20	0	8	0	1	310	13	0	0	0	0	1	
11:15	22	285	0	4	22	0	9	0	0	310	11	1	0	0	0	2	
11:30	30	290	0	4	17	0	10	0	1	345	12	4	0	0	0	1	
11:45	21	318	1	9	25	0	14	0	1	333	17	3	0	0	0	2	
12:00	28	368	2	6	19	0	16	0	0	316	12	1	0	0	0	0	
12:15	23	334	0	4	27	0	18	0	2	325	13	3	0	2	1	1	
12:30	28	312	0	8	15	0	17	0	0	364	15	0	0	0	0	0	
12:45	25	331	0	2	45	0	15	0	0	336	18	0	1	0	0	0	
15:00	10	428	0	0	18	0	6	0	0	263	13	0	0	0	0	0	
15:15	17	427	0	3	19	0	11	0	0	248	10	1	0	0	0	2	
15:30	9	412	0	2	21	0	10	0	0	255	7	5	0	0	0	0	
15:45	17	365	0	3	16	0	12	0	0	266	6	0	0	0	0	0	
16:00	16	405	0	4	20	0	9	1	0	229	7	0	0	0	0	0	
16:15	22	370	0	5	19	0	7	0	0	240	13	2	0	0	0	0	
16:30	29	347	0	4	15	0	6	0	0	219	6	1	0	0	0	0	
16:45	20	348	0	1	10	0	9	0	0	254	16	0	0	0	0	1	
17:00	8	447	0	5	14	0	6	0	0	222	11	1	0	0	0	1	
17:15	17	431	0	1	11	0	11	0	1	222	16	4	0	0	0	0	
17:30	21	329	0	4	10	0	6	0	0	211	7	0	0	0	0	0	
17:45	16	292	0	4	24	0	8	0	0	213	7	0	0	0	0	0	

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to

Trucks

Street Name	SB (US 41)				WB (Palm Dr)				NB (US 41)				EB (Palm Dr)				
	Start Time	Left	Thru	Right	U Turn	Left	Thru	Right	U Turn	Left	Thru	Right	U Turn	Left	Thru	Right	U Tu
7:00	0	5	0	1	0	0	0	0	0	0	4	1	0	0	0	0	0
7:15	0	10	0	0	0	0	1	0	0	0	5	0	0	0	0	0	0
7:30	0	7	0	0	0	0	0	0	0	0	6	1	0	0	0	0	0
7:45	0	4	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0
8:00	0	2	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0
8:15	2	3	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0
8:30	1	6	0	0	1	0	1	0	0	0	6	0	0	0	0	0	0
8:45	0	6	0	1	0	0	0	0	0	0	7	0	0	0	0	0	0
9:00	0	4	0	0	0	0	1	0	0	0	6	0	0	0	0	0	0
9:15	0	5	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0
9:30	1	8	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0
9:45	0	5	0	1	2	0	2	0	0	0	7	0	0	0	0	0	1
11:00	0	6	0	0	1	0	1	0	0	0	4	0	0	0	0	0	0
11:15	1	2	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0
11:30	1	6	0	0	0	0	1	0	0	0	4	0	0	0	0	0	0
11:45	1	3	0	0	1	0	0	0	0	0	6	0	0	0	0	0	0
12:00	0	3	0	0	1	0	1	0	0	0	3	0	0	0	0	0	0
12:15	0	6	0	0	0	0	0	0	0	0	3	1	0	0	0	0	0
12:30	1	6	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
12:45	1	3	0	0	1	0	0	0	0	0	6	0	0	0	0	0	0
15:00	0	5	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0
15:15	1	3	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0
15:30	0	7	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0
15:45	0	3	0	0	1	1	0	0	0	0	6	0	0	0	0	0	1
16:00	0	2	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0
16:30	0	2	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0
16:45	0	1	0	0	1	0	0	0	0	0	3	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0	0
17:15	0	2	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
17:30	0	3	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to

TURNING MOVEMENT COUNT: US 41 @ Palm Dr
 EAST/WEST ST:Palm Dr

TIME: 7am-6pm
 NORTH/SOUTH ST:US 41
 COUNTED BY: Travis

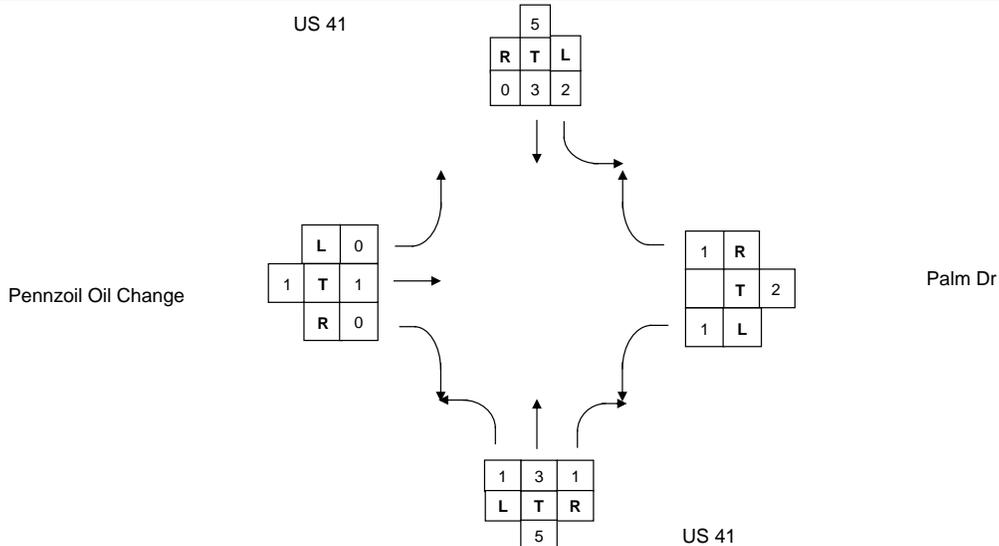
ALL VEHICLES

START TIME	NORTHBOUND					SOUTHBOUND					NS TOTAL	EASTBOUND					WESTBOUND					EW TOTAL	GRAND TOTAL
	LEFT	THRU	RIGHT	U-TURN	TOTAL	LEFT	THRU	RIGHT	U-TURN	TOTAL		LEFT	THRU	RIGHT	U-TURN	TOTAL	LEFT	THRU	RIGHT	U-TURN	TOTAL		
7:00	0	289	9	1	299	3	136	0	5	144	443	0	0	1	0	1	3	0	5	0	8	9	452
7:15	1	358	5	0	364	4	157	0	5	166	530	0	0	0	0	0	3	0	5	0	8	8	538
7:30	0	403	6	0	409	8	203	0	5	216	625	0	0	0	0	0	7	1	6	0	14	14	639
7:45	1	460	6	0	467	8	187	0	11	206	673	0	0	0	0	0	4	0	10	0	14	14	687
Total	2	1,510	26	1	1,539	23	683	0	26	732	2,271	0	0	1	0	1	17	1	26	0	44	45	2,316
8:00	0	368	5	1	374	6	172	0	2	180	554	0	0	2	0	2	4	0	9	0	13	15	569
8:15	0	421	6	1	428	8	184	0	2	194	622	0	0	1	0	1	9	1	7	0	17	18	640
8:30	0	399	10	1	410	9	188	1	4	202	612	1	0	0	0	1	12	0	10	0	22	23	635
8:45	0	337	5	1	343	10	213	0	9	232	575	0	0	0	0	0	10	0	11	0	21	21	596
Total	0	1,525	26	4	1,555	33	757	1	17	808	2,363	1	0	3	0	4	35	1	37	0	73	77	2,440
9:00	0	332	6	1	339	5	194	0	3	202	541	1	0	1	0	2	11	0	7	0	18	20	561
9:15	0	277	9	0	286	11	191	0	3	205	491	0	0	0	0	0	17	0	6	0	23	23	514
9:30	1	300	13	1	315	16	235	0	3	254	569	0	1	0	0	1	18	0	15	0	33	34	603
9:45	0	315	11	0	326	19	238	0	3	260	586	1	0	2	0	3	12	0	19	0	31	34	620
Total	1	1,224	39	2	1,266	51	858	0	12	921	2,187	2	1	3	0	6	58	0	47	0	105	111	2,298
11:00	1	314	13	0	328	22	291	0	2	315	643	0	0	1	0	1	21	0	9	0	30	31	674
11:15	0	318	11	1	330	23	287	0	4	314	644	0	0	2	0	2	22	0	9	0	31	33	677
11:30	1	349	12	4	366	31	296	0	4	331	697	0	0	1	0	1	17	0	11	0	28	29	726
11:45	1	339	17	3	360	22	321	1	9	353	713	0	0	2	0	2	26	0	14	0	40	42	755
Total	3	1,320	53	8	1,384	98	1,195	1	19	1,313	2,697	0	0	6	0	6	86	0	43	0	129	135	2,832
12:00	0	319	12	1	332	28	371	2	6	407	739	0	0	0	0	0	20	0	17	0	37	37	776
12:15	2	328	14	3	347	23	340	0	4	367	714	0	2	1	0	3	27	0	18	0	45	48	762
12:30	0	366	15	0	381	29	318	0	8	355	736	0	0	0	0	0	15	0	17	0	32	32	768
12:45	0	342	18	0	360	26	334	0	2	362	722	1	0	0	0	1	46	0	15	0	61	62	784
Total	2	1,355	59	4	1,420	106	1,363	2	20	1,491	2,911	1	2	1	0	4	108	0	67	0	175	179	3,090
15:00	0	266	13	0	279	10	433	0	0	443	722	0	0	0	0	0	18	0	6	0	24	24	746
15:15	0	249	10	1	260	18	430	0	3	451	711	0	0	2	0	2	20	0	11	0	31	33	744
15:30	0	261	7	5	273	9	419	0	2	430	703	0	0	0	0	0	21	0	10	0	31	31	734
15:45	0	272	6	0	278	17	368	0	3	388	666	0	0	1	0	1	17	1	12	0	30	31	697
Total	0	1,048	36	6	1,090	54	1,650	0	8	1,712	2,802	0	0	3	0	3	76	1	39	0	116	119	2,921
16:00	0	230	7	0	237	16	407	0	4	427	664	0	0	0	0	0	21	0	9	1	31	31	695
16:15	0	245	13	2	260	22	370	0	5	397	657	0	0	0	0	0	19	0	7	0	26	26	683
16:30	0	222	6	1	229	29	349	0	4	382	611	0	0	0	0	0	15	0	6	0	21	21	632
16:45	0	257	16	0	273	20	349	0	1	370	643	0	0	1	0	1	11	0	9	0	20	21	664
Total	0	954	42	3	999	87	1,475	0	14	1,576	2,575	0	0	1	0	1	66	0	31	1	98	99	2,674
17:00	0	224	12	1	237	8	447	0	5	460	697	0	0	1	0	1	14	0	6	0	20	21	718
17:15	1	224	16	4	245	17	433	0	1	451	696	0	0	0	0	0	11	0	11	0	22	22	718
17:30	0	212	7	0	219	21	332	0	4	357	576	0	0	0	0	0	10	0	6	0	16	16	592
17:45	0	218	7	0	225	16	292	0	4	312	537	0	0	0	0	0	24	0	8	0	32	32	569
Total	1	878	42	5	926	62	1,504	0	14	1,580	2,506	0	0	1	0	1	59	0	31	0	90	91	2,597

SUMMARY OF VEHICLE MOVEMENTS

SECTION: N/A CITY: Naples COUNTY: Collier
 INTR ROUTE: Palm Dr STATE ROUTE: US 41
 OBSERVER: Travis DATE: 06/07/17 MILEPOST:
 WEATHER: Rain ROAD CONDITION: Wet
 REMARKS:

FORM COMPLETED BY: TM Date 06/23/17



TIME BEGIN/END	NORTHBOUND					SOUTHBOUND					TOTAL N/S	EASTBOUND					WESTBOUND					TOT E/
	L	T	R	U	TOT	L	T	R	U	TOT		L	T	R	U	TOT	L	T	R	U	TOT	
7 - 8	2	1,510	26	1	1,539	23	683	0	26	732	2,271	0	0	1	0	1	17	1	26	0	44	
8 - 9	0	1,525	26	4	1,555	33	757	1	17	808	2,363	1	0	3	0	4	35	1	37	0	73	
9 - 10	1	1,224	39	2	1,266	51	858	0	12	921	2,187	2	1	3	0	6	58	0	47	0	105	
11 - 12	3	1,320	53	8	1,384	98	1,195	1	19	1,313	2,697	0	0	6	0	6	86	0	43	0	129	
12 - 1	2	1,355	59	4	1,420	106	1,363	2	20	1,491	2,911	1	2	1	0	4	108	0	67	0	175	
3 - 4	0	1,048	36	6	1,090	54	1,650	0	8	1,712	2,802	0	0	3	0	3	76	1	39	0	116	
4 - 5	0	954	42	3	999	87	1,475	0	14	1,576	2,575	0	0	1	0	1	66	0	31	1	98	
5 - 6	1	878	42	5	926	62	1,504	0	14	1,580	2,506	0	0	1	0	1	59	0	31	0	90	
TOTAL	9	9,814	323	33	10,179	514	9,485	4	130	10,133	20,312	4	3	19	0	26	505	3	321	1	830	

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to

FLORIDA DEPARTMENT OF TRANSPORTATION

PEDESTRIAN MOVEMENT SUMMARY

SECTION: N/A CITY: Naples COUNTY: Collier
 INTER. ROUTE: Palm Dr STATE ROUTE: US 41
 OBSERVER: Travis DATE: 06/07/17

REMARKS: _____

FORM COMPLETED BY: TM

DATE: 06/23/17

US 41



	7-8	8-9	9-1	11-12	12-1	3-4	4-5	5-6	Total
	0	0	0	0	0	0	0	0	0
	1	0	0	0	1	0	0	0	2
	0	0	0	0	0	0	0	0	0
	0	1	0	0	2	0	1	0	4
Total	1	1	0	0	3	0	1	0	6

	7-8	8-9	9-10	11-12	12-1
	0	1	3	1	0
	3	0	1	3	1
Total	2	12	1	11	26

Pennzoil Oil change / Palm Dr

	7-8	8-9	9-10	11-12	12-1
	1	3	0	1	1
	5	3	3	5	0
Total	6	21	7	23	57

	7-8	8-9	9-1	11-12	12-1	3-4	4-5	5-6	Total
	0	0	0	0	0	0	0	0	0
	0	0	1	0	0	0	0	0	1
	0	0	0	0	0	0	0	0	0
	0	0	0	1	1	0	0	0	2
Total	0	0	1	1	1	0	0	0	3

US 41

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to

HNTB

201 Franklin St
Suite #1200
Tampa FL 33602

Counter:TDC ULTRA
Counted By:Travis S
Weather:Cloudy
Day of the Week:Tuesday

File Name : US 41 @ Guilford Rd TMC tra
Site Code : 00000000
Start Date : 6/6/2017
Page No : 1

Groups Printed- CARS - TRUCKS

Start Time	US 41 Southbound					Shopping Plaza Westbound					US 41 Northbound					GUILFORD ROAD Eastbound					Int. Tc
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
07:00 AM	2	99	1	3	105	0	0	1	0	1	7	314	0	0	321	2	0	5	0	7	45
07:15 AM	1	161	1	4	167	0	0	0	0	0	4	427	3	1	435	1	0	4	0	5	60
07:30 AM	0	177	4	2	183	1	0	3	0	4	8	494	2	0	504	0	0	6	0	6	65
07:45 AM	0	175	4	2	181	2	0	3	0	5	8	568	2	4	582	2	0	7	0	9	71
Total	3	612	10	11	636	3	0	7	0	10	27	1803	7	5	1842	5	0	22	0	27	251
08:00 AM	1	198	2	3	204	3	0	2	0	5	6	462	1	3	472	3	0	7	0	10	65
08:15 AM	1	210	2	1	214	2	0	5	0	7	5	512	3	0	520	2	0	3	0	5	74
08:30 AM	2	206	2	1	211	1	1	6	0	8	7	502	5	0	514	3	0	5	0	8	74
08:45 AM	3	221	7	9	240	1	0	8	0	9	8	437	11	2	458	5	0	7	0	12	71
Total	7	835	13	14	869	7	1	21	0	29	26	1913	20	5	1964	13	0	22	0	35	285
09:00 AM	5	235	10	4	254	4	1	5	0	10	6	423	4	1	434	7	1	2	0	10	70
09:15 AM	9	174	12	8	203	3	0	8	0	11	9	398	6	2	415	5	0	6	0	11	64
09:30 AM	5	213	8	5	231	6	0	16	0	22	8	417	9	1	435	1	0	5	0	6	65
09:45 AM	4	221	6	4	235	0	0	6	0	6	4	377	7	1	389	8	0	5	0	13	64
Total	23	843	36	21	923	13	1	35	0	49	27	1615	26	5	1673	21	1	18	0	40	265
11:00 AM	4	271	12	5	292	2	0	16	0	18	14	417	3	0	434	2	0	4	0	6	75
11:15 AM	5	305	14	7	331	1	0	19	0	20	15	419	2	3	439	2	1	6	0	9	75
11:30 AM	3	295	12	15	325	4	0	15	0	19	13	372	3	0	388	3	0	5	0	8	74
11:45 AM	2	315	18	10	345	3	1	30	0	34	14	386	2	1	403	3	0	5	0	8	75
Total	14	1186	56	37	1293	10	1	80	0	91	56	1594	10	4	1664	10	1	20	0	31	307
12:00 PM	7	338	9	14	368	3	0	27	0	30	16	360	2	0	378	3	1	4	0	8	78
12:15 PM	1	349	17	11	378	2	0	24	0	26	11	410	2	2	425	4	0	6	0	10	80
12:30 PM	7	312	16	16	351	3	0	23	0	26	13	407	3	1	424	2	0	1	0	3	80
12:45 PM	3	288	17	13	321	2	0	19	0	21	15	388	3	0	406	1	0	4	0	5	75
Total	18	1287	59	54	1418	10	0	93	0	103	55	1565	10	3	1633	10	1	15	0	26	318
03:00 PM	3	330	8	6	347	5	0	35	0	40	10	432	2	0	444	3	0	2	0	5	85
03:15 PM	2	375	14	4	395	3	0	34	0	37	8	483	2	2	495	0	1	1	0	2	92
03:30 PM	1	411	8	8	428	6	0	34	1	41	14	416	1	4	435	2	0	4	0	6	91
03:45 PM	5	416	13	10	444	5	0	24	0	29	17	425	3	0	445	3	0	2	0	5	92
Total	11	1532	43	28	1614	19	0	127	1	147	49	1756	8	6	1819	8	1	9	0	18	355
04:00 PM	0	417	12	7	436	3	0	31	0	34	11	398	3	2	414	2	0	4	0	6	85
04:15 PM	4	426	15	6	451	5	0	30	0	35	7	384	3	0	394	1	2	3	0	6	88
04:30 PM	0	383	14	5	402	1	0	30	0	31	12	382	2	1	397	3	0	5	0	8	80
04:45 PM	6	370	9	11	396	3	0	31	0	34	13	399	2	4	418	0	1	4	0	5	85
Total	10	1596	50	29	1685	12	0	122	0	134	43	1563	10	7	1623	6	3	16	0	25	345
05:00 PM	5	431	5	6	447	1	0	25	0	26	8	375	3	0	386	1	0	3	0	4	85
05:15 PM	5	515	11	12	543	3	1	23	0	27	12	396	4	0	412	5	0	2	0	7	98
05:30 PM	2	391	8	9	410	1	0	24	0	25	10	358	6	2	376	3	0	2	0	5	81
05:45 PM	4	308	8	4	324	1	1	32	0	34	14	352	2	0	368	0	3	3	0	6	75
Total	16	1645	32	31	1724	6	2	104	0	112	44	1481	15	2	1542	9	3	10	0	22	340
Grand Total	102	9536	299	225	10162	80	5	589	1	675	327	13290	106	37	13760	82	10	132	0	224	2485
Apprch %	1	93.8	2.9	2.2		11.9	0.7	87.3	0.1		2.4	96.6	0.8	0.3		36.6	4.5	58.9	0		
Total %	0.4	38.4	1.2	0.9	40.9	0.3	0	2.4	0	2.7	1.3	53.5	0.4	0.1	55.4	0.3	0	0.5	0	0.9	
CARS	101	9399	288	216	10004	75	5	584	1	665	319	13154	105	37	13615	81	10	132	0	223	2450
% CARS	99	98.6	96.3	96	98.4	93.8	100	99.2	100	98.5	97.6	99	99.1	100	98.9	98.8	100	100	0	99.6	98
TRUCKS	1	137	11	9	158	5	0	5	0	10	8	136	1	0	145	1	0	0	0	1	31
% TRUCKS	1	1.4	3.7	4	1.6	6.2	0	0.8	0	1.5	2.4	1	0.9	0	1.1	1.2	0	0	0	0.4	1

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to

HNTB

201 Franklin St
Suite #1200
Tampa FL 33602

Counter:TDC ULTRA
Counted By:Travis S
Weather:Cloudy
Day of the Week:Tuesday

File Name : US 41 @ Guilford Rd TMC tra
Site Code : 00000000
Start Date : 6/6/2017
Page No : 2

Start Time	US 41 Southbound					Shopping Plaza Westbound					US 41 Northbound					GUILFORD ROAD Eastbound					Int. Tc
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
Peak Hour Analysis From 07:00 AM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	04:45 PM					03:00 PM					07:45 AM					08:30 AM					
+0 mins.	6	370	9	11	396	5	0	35	0	40	8	568	2	4	582	3	0	5	0	8	
+15 mins.	5	431	5	6	447	3	0	34	0	37	6	462	1	3	472	5	0	7	0	12	
+30 mins.	5	515	11	12	543	6	0	34	1	41	5	512	3	0	520	7	1	2	0	10	
+45 mins.	2	391	8	9	410	5	0	24	0	29	7	502	5	0	514	5	0	6	0	11	
Total Volume	18	1707	33	38	1796	19	0	127	1	147	26	2044	11	7	2088	20	1	20	0	41	
% App. Total	1	95	1.8	2.1		12.9	0	86.4	0.7		1.2	97.9	0.5	0.3		48.8	2.4	48.8	0		
PHF	.750	.829	.750	.792	.827	.792	.000	.907	.250	.896	.813	.900	.550	.438	.897	.714	.250	.714	.000	.854	

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to

Street Name	SB (US 41)				WB (Shopping Plaza)				NB (US 41)				EB (Guilford Rd)			
	Start Time	Left	Thru	Right	U Turn	Left	Thru	Right	U Turn	Left	Thru	Right	U Turn	Left	Thru	Right
7:00	1	99	2	3	1	0	0	0	0	314	7	0	5	0	2	
7:15	1	156	1	3	0	0	0	0	3	421	4	1	4	0	1	
7:30	3	170	0	2	2	0	1	0	2	492	8	0	6	0	0	
7:45	4	172	0	2	3	0	2	0	2	560	8	4	7	0	2	
8:00	2	190	1	2	2	0	2	0	1	458	5	3	7	0	3	
8:15	2	206	1	1	5	0	2	0	3	503	5	0	3	0	2	
8:30	2	200	2	1	5	1	1	0	5	496	6	0	5	0	3	
8:45	7	214	3	9	8	0	1	0	11	432	8	2	7	0	5	
9:00	9	230	5	4	5	1	4	0	4	418	6	1	2	1	7	
9:15	12	171	9	6	8	0	2	0	6	392	9	2	6	0	5	
9:30	8	200	4	5	16	0	5	0	9	409	8	1	5	0	1	
9:45	3	216	4	4	5	0	0	0	7	372	4	1	5	0	7	
11:00	11	268	4	4	16	0	2	0	3	407	14	0	4	0	2	
11:15	12	300	5	7	19	0	1	0	2	417	13	3	6	1	2	
11:30	12	287	3	14	15	0	3	0	2	370	13	0	5	0	3	
11:45	18	310	2	10	30	1	3	0	2	382	14	1	5	0	3	
12:00	9	333	7	13	27	0	3	0	2	357	15	0	4	1	3	
12:15	17	340	1	11	24	0	2	0	2	407	11	2	6	0	4	
12:30	14	306	7	15	23	0	3	0	3	403	11	1	1	0	2	
12:45	16	285	3	13	19	0	2	0	3	380	15	0	4	0	1	
15:00	8	327	3	6	35	0	5	0	2	430	10	0	2	0	3	
15:15	14	374	2	4	32	0	3	0	2	471	8	2	1	1	0	
15:30	8	405	1	8	34	0	5	1	1	415	13	4	4	0	2	
15:45	13	416	5	10	24	0	5	0	3	422	17	0	2	0	3	
16:00	12	415	0	6	31	0	3	0	3	396	11	2	4	0	2	
16:15	15	425	4	6	30	0	5	0	3	382	7	0	3	2	1	
16:30	14	380	0	5	30	0	1	0	2	380	12	1	5	0	3	
16:45	9	368	6	11	31	0	3	0	2	395	13	4	4	1	0	
17:00	5	427	5	6	25	0	1	0	3	374	8	0	3	0	1	
17:15	11	513	5	12	23	1	3	0	4	393	12	0	2	0	5	
17:30	8	389	2	9	24	0	1	0	6	357	10	2	2	0	3	
17:45	8	307	4	4	32	1	1	0	2	349	14	0	3	3	0	

Trucks

Street Name	SB (US 41)				WB (Shopping Plaza)				NB (US 41)				EB (Guilford Rd)				
	Start Time	Left	Thru	Right	U Turn	Left	Thru	Right	U Turn	Left	Thru	Right	U Turn	Left	Thru	Right	U Tu
7:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15	0	5	0	1	0	0	0	0	0	0	6	0	0	0	0	0	0
7:30	1	7	0	0	1	0	0	0	0	0	2	0	0	0	0	0	0
7:45	0	3	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0
8:00	0	8	0	1	0	0	1	0	0	0	4	1	0	0	0	0	0
8:15	0	4	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0
8:30	0	6	0	0	1	0	0	0	0	0	6	1	0	0	0	0	0
8:45	0	7	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0
9:00	1	5	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0
9:15	0	3	0	2	0	0	1	0	0	0	6	0	0	0	0	0	0
9:30	0	13	1	0	0	0	1	0	0	0	8	0	0	0	0	0	0
9:45	3	5	0	0	1	0	0	0	0	0	5	0	0	0	0	0	1
11:00	1	3	0	1	0	0	0	0	0	0	10	0	0	0	0	0	0
11:15	2	5	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0
11:30	0	8	0	1	0	0	1	0	0	1	2	0	0	0	0	0	0
11:45	0	5	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0
12:00	0	5	0	1	0	0	0	0	0	0	3	1	0	0	0	0	0
12:15	0	9	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0
12:30	2	6	0	1	0	0	0	0	0	0	4	2	0	0	0	0	0
12:45	1	3	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0
15:00	0	3	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
15:15	0	1	0	0	2	0	0	0	0	0	12	0	0	0	0	0	0
15:30	0	6	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0
15:45	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0
16:00	0	2	0	1	0	0	0	0	0	0	2	0	0	0	0	0	0
16:15	0	1	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
16:30	0	3	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
16:45	0	2	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0
17:00	0	4	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
17:15	0	2	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0
17:30	0	2	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
17:45	0	1	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to

TURNING MOVEMENT COUNT:US 41 @ Guilford Rd
EAST/WEST ST:Guilford Rd

TIME: 7am-6pm
NORTH/SOUTH ST:US 41
COUNTED BY: Travis S

ALL VEHICLES

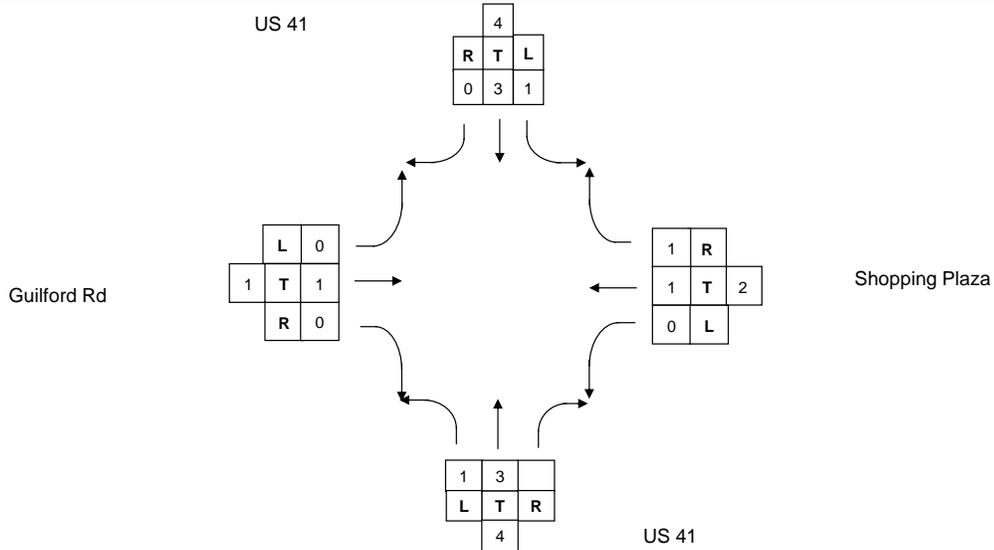
START TIME	NORTHBOUND					SOUTHBOUND					NS TOTAL	EASTBOUND					WESTBOUND					EW TOTAL	GRAND TOTAL
	LEFT	THRU	RIGHT	U-TURN	TOTAL	LEFT	THRU	RIGHT	U-TURN	TOTAL		LEFT	THRU	RIGHT	U-TURN	TOTAL	LEFT	THRU	RIGHT	U-TURN	TOTAL		
7:00	0	314	7	0	321	1	99	2	3	105	426	5	0	2	0	7	1	0	0	0	1	8	434
7:15	3	427	4	1	435	1	161	1	4	167	602	4	0	1	0	5	0	0	0	0	0	5	607
7:30	2	494	8	0	504	4	177	0	2	183	687	6	0	0	0	6	3	0	1	0	4	10	697
7:45	2	568	8	4	582	4	175	0	2	181	763	7	0	2	0	9	3	0	2	0	5	14	777
Total	7	1,803	27	5	1,842	10	612	3	11	636	2,478	22	0	5	0	27	7	0	3	0	10	37	2,515
8:00	1	462	6	3	472	2	198	1	3	204	676	7	0	3	0	10	2	0	3	0	5	15	691
8:15	3	512	5	0	520	2	210	1	1	214	734	3	0	2	0	5	5	0	2	0	7	12	746
8:30	5	502	7	0	514	2	206	2	1	211	725	5	0	3	0	8	6	1	1	0	8	16	741
8:45	11	437	8	2	458	7	221	3	9	240	698	7	0	5	0	12	8	0	1	0	9	21	719
Total	20	1,913	26	5	1,964	13	835	7	14	869	2,833	22	0	13	0	35	21	1	7	0	29	64	2,897
9:00	4	423	6	1	434	10	235	5	4	254	688	2	1	7	0	10	5	1	4	0	10	20	708
9:15	6	398	9	2	415	12	174	9	8	203	618	6	0	5	0	11	8	0	3	0	11	22	640
9:30	9	417	8	1	435	8	213	5	5	231	666	5	0	1	0	6	16	0	6	0	22	28	694
9:45	7	377	4	1	389	6	221	4	4	235	624	5	0	8	0	13	6	0	0	0	6	19	643
Total	26	1,615	27	5	1,673	36	843	23	21	923	2,596	18	1	21	0	40	35	1	13	0	49	89	2,685
11:00	3	417	14	0	434	12	271	4	5	292	726	4	0	2	0	6	16	0	2	0	18	24	750
11:15	2	419	15	3	439	14	305	5	7	331	770	6	1	2	0	9	19	0	1	0	20	29	799
11:30	3	372	13	0	388	12	295	3	15	325	713	5	0	3	0	8	15	0	4	0	19	27	740
11:45	2	386	14	1	403	18	315	2	10	345	748	5	0	3	0	8	30	1	3	0	34	42	790
Total	10	1,594	56	4	1,664	56	1,186	14	37	1,293	2,957	20	1	10	0	31	80	1	10	0	91	122	3,079
12:00	2	360	16	0	378	9	338	7	14	368	746	4	1	3	0	8	27	0	3	0	30	38	784
12:15	2	410	11	2	425	17	349	1	11	378	803	6	0	4	0	10	24	0	2	0	26	36	839
12:30	3	407	13	1	424	16	312	7	16	351	775	1	0	2	0	3	23	0	3	0	26	29	804
12:45	3	388	15	0	406	17	288	3	13	321	727	4	0	1	0	5	19	0	2	0	21	26	753
Total	10	1,565	55	3	1,633	59	1,287	18	54	1,418	3,051	15	1	10	0	26	93	0	10	0	103	129	3,180
15:00	2	432	10	0	444	8	330	3	6	347	791	2	0	3	0	5	35	0	5	0	40	45	836
15:15	2	483	8	2	495	14	375	2	4	395	890	1	1	0	0	2	34	0	3	0	37	39	929
15:30	1	416	14	4	435	8	411	1	8	428	863	4	0	2	0	6	34	0	6	1	41	47	910
15:45	3	425	17	0	445	13	416	5	10	444	889	2	0	3	0	5	24	0	5	0	29	34	923
Total	8	1,756	49	6	1,819	43	1,532	11	28	1,614	3,433	9	1	8	0	18	127	0	19	1	147	165	3,598
16:00	3	398	11	2	414	12	417	0	7	436	850	4	0	2	0	6	31	0	3	0	34	40	890
16:15	3	384	7	0	394	15	426	4	6	451	845	3	2	1	0	6	30	0	5	0	35	41	886
16:30	2	382	12	1	397	14	383	0	5	402	799	5	0	3	0	8	30	0	1	0	31	39	838
16:45	2	399	13	4	418	9	370	6	11	396	814	4	1	0	0	5	31	0	3	0	34	39	853
Total	10	1,563	43	7	1,623	50	1,596	10	29	1,685	3,308	16	3	6	0	25	122	0	12	0	134	159	3,467
17:00	3	375	8	0	386	5	431	5	6	447	833	3	0	1	0	4	25	0	1	0	26	30	863
17:15	4	396	12	0	412	11	515	5	12	543	955	2	0	5	0	7	23	1	3	0	27	34	989
17:30	6	358	10	2	376	8	391	2	9	410	786	2	0	3	0	5	24	0	1	0	25	30	816
17:45	2	352	14	0	368	8	308	4	4	324	692	3	3	0	0	6	32	1	1	0	34	40	732
Total	15	1,481	44	2	1,542	32	1,645	16	31	1,724	3,266	10	3	9	0	22	104	2	6	0	112	134	3,400

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail

SUMMARY OF VEHICLE MOVEMENTS

SECTION: N/A CITY: Naples COUNTY: Collier
 INTR ROUTE: Guilford Rd STATE ROUTE: US 41
 OBSERVER: Travis S. DATE: 06/06/17 MILEPOST:
 WEATHER: Cloudy ROAD CONDITION: Good / Wet
 REMARKS:

FORM COMPLETED BY: TM DATE: 06/19/17



TIME	NORTHBOUND					SOUTHBOUND					TOTAL	EASTBOUND					WESTBOUND					TOT
	BEGIN/END	L	T	R	U	TOT	L	T	R	U		TOT	N/S	L	T	R	U	TOT	L	T	R	
7 - 8	7	1,803	27	5	1,842	10	612	3	11	636	2,478	22	0	5	0	27	7	0	3	0	10	
8 - 9	20	1,913	26	5	1,964	13	835	7	14	869	2,833	22	0	13	0	35	21	1	7	0	29	
9 - 10	26	1,615	27	5	1,673	36	843	23	21	923	2,596	18	1	21	0	40	35	1	13	0	49	
11 - 12	10	1,594	56	4	1,664	56	1,186	14	37	1,293	2,957	20	1	10	0	31	80	1	10	0	91	
12 - 1	10	1,565	55	3	1,633	59	1,287	18	54	1,418	3,051	15	1	10	0	26	93	0	10	0	103	
3 - 4	8	1,756	49	6	1,819	43	1,532	11	28	1,614	3,433	9	1	8	0	18	127	0	19	1	147	
4 - 5	10	1,563	43	7	1,623	50	1,596	10	29	1,685	3,308	16	3	6	0	25	122	0	12	0	134	
5 - 6	15	1,481	44	2	1,542	32	1,645	16	31	1,724	3,266	10	3	9	0	22	104	2	6	0	112	
TOTAL	106	13,290	327	37	13,760	299	9,536	102	225	10,162	23,922	132	10	82	0	224	589	5	80	1	675	

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to

FLORIDA DEPARTMENT OF TRANSPORTATION

PEDESTRIAN MOVEMENT SUMMARY

SECTION: N/A CITY: Naples COUNTY: Collier
 INTER. ROUTE: Guilford Rd STATE ROUTE: US 41
 OBSERVER: Travis S. DATE: 06/06/17

REMARKS: _____

FORM COMPLETED BY: TM DATE: 06/19/17

US 41



	7-8	8-9	9-1	11-12	12-1	3-4	4-5	5-6	Total
	0	0	0	0	1	0	0	0	1
	1	0	0	0	1	2	1	0	5
	0	0	0	0	1	3	0	0	4
	0	0	0	0	0	0	0	0	0
Total	1	0	0	0	3	5	1	0	10

	7-8	8-9	9-10	11-12	12-1	3-4	4-5	5-6	Total
	1	0	0	0	1				
	0	2	0	1	3				
	2	2	0	1	5				
	1	1	0	3	5				
	1	2	0	2	5				
	1	1	0	5	7				
	1	2	1	3	7				
	1	0	2	0	3				
Total	8	10	3	15	36				

Guilford Rd / Shopping Plaza

	7-8	8-9	9-10	11-12	12-1	3-4	4-5	5-6	Total
	0	0	0	1	1				
	1	3	0	2	6				
	1	2	0	1	4				
	0	2	0	0	2				
	1	0	0	1	2				
	0	4	1	5	10				
	2	3	0	4	9				
	2	2	1	2	7				
Total	7	16	2	16	41				

	7-8	8-9	9-1	11-12	12-1	3-4	4-5	5-6	Total
	0	0	0	0	1	0	0	0	1
	1	0	0	0	0	0	1	3	5
	1	0	1	1	0	0	1	0	4
	0	0	0	0	0	0	0	0	0
Total	2	0	1	1	1	0	2	3	10

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to



APPENDIX C

PEDESTRIAN/BICYCLIST SAFETY AUDIT

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to



APPENDIX D

CRASH DATA

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to

COLLISION SUMMARY

Section: 03010000
 Location: From Commercial Dr to Guilford Rd
 Study Period: 1/1/2011 to 12/31/2011
 No. of Years: 1

State Route: 90
 M.P.: 13.158 - 15.024
 County: Collier

Engineer: HNTB

No.	Date	Day	Time	Type	Fatal	Injury	Prop. Damage	Day/Night	Wet/Dry	Contributing Cause	Comments
1	1/6/2011	Thu.	14:40	Rear End			x	Day	Wet	Careless Driving	
2	1/8/2011	Sat.	22:24	Collision w/ Pole			x	Night	Dry	DUI	
3	1/16/2011	Sun.	0:02	Collision w/ Pole		x		Night	Dry	Careless Driving	
4	2/1/2011	Tue.	23:20	Rear End			x	Night	Dry	DUI	
5	2/3/2011	Thu.	8:55	Rear End		x		Day	Dry	Careless Driving	
6	2/11/2011	Fri.	10:35	Collision w/ Tree		x		Day	Dry	Other	Swerved or avoided right turning vehicle
7	2/28/2011	Mon.	13:05	Rear End		x		Day	Dry	Careless Driving	
8	3/3/2011	Thu.	11:20	Collision w/ Bike		x		Day	Dry	FTYRW	
9	3/7/2011	Mon.	11:59	Rear End		x		Day	Dry	Careless Driving	Stopped for pedestrian crossing
10	3/9/2011	Wed.	15:43	Rear End		x		Day	Dry	Careless Driving	
11	4/5/2011	Tue.	17:22	Rear End		x		Day	Dry	Careless Driving	
12	4/6/2011	Wed.	12:00	Rear End			x	Day	Dry	Careless Driving	
13	4/10/2011	Sun.	12:03	Angle		x		Day	Dry	FTYRW	
14	4/12/2011	Tue.	10:25	Collision w/ Bike		x		Day	Dry	Other	Fled scene
15	4/30/2011	Sat.	16:59	Angle		x		Day	Wet	Exceeded Speed Limit	
16	5/3/2011	Tue.	15:03	Rear End			x	Day	Dry	Other	Fled scene
17	6/15/2011	Wed.	9:56	Collision w/ Bike		x		Day	Dry	Careless Driving	
18	8/10/2011	Wed.	17:55	Rear End			x	Day	Wet	Followed Too Closely	
19	8/16/2011	Tue.	15:49	Collision w/ Bike		x		Day	Dry	FTYRW	
20	8/17/2011	Wed.	14:43	Rear End			x	Day	Dry	Careless Driving	
21	8/27/2011	Sat.	19:38	Collision w/ Bike		x		Night	Dry	FTYRW	
22	8/31/2011	Wed.	10:09	Rear End			x	Day	Wet	Careless Driving	
23	9/16/2011	Fri.	17:45	Rear End		x		Day	Dry	No Improper Driving	
24	9/19/2011	Mon.	19:21	Left Turn			x	Night	Wet	FTYRW	Attempted to make a u-turn
25	10/4/2011	Tue.	14:10	Right Turn		x		Day	Dry	Careless Driving	
26	10/7/2011	Fri.	20:00	Left Turn		x		Night	Dry	FTYRW	Attempted to make a u-turn
27	10/9/2011	Sun.	20:10	Rear End		x		Night	Dry	Other	
28	10/11/2011	Tue.	14:50	Rear End			x	Day	Dry	Careless Driving	
29	10/23/2011	Sun.	20:35	Rear End			x	Night	Dry	Followed Too Closely	
30	10/27/2011	Thu.	21:06	Head On		x		Night	Dry	Other	Failed to keep in proper lane
31	10/31/2011	Mon.	11:29	Rear End		x		Day	Dry	Exceeded Speed Limit	
32	11/3/2011	Thu.	14:30	Collision w/ Bike			x	Day	Dry	No Improper Driving	
33	11/3/2011	Thu.	13:42	Rear End		x		Day	Dry	Careless Driving	
34	11/3/2011	Thu.	19:44	Collision w/ Ped		x		Night	Dry	Other	
35	11/5/2011	Sat.	15:32	Angle		x		Day	Dry	Other	Fled scene
36	11/7/2011	Mon.	16:10	Collision w/ Bike		x		Day	Dry	FTYRW	
37	11/14/2011	Mon.	17:30	Collision w/ Bike		x		Night	Dry	No Improper Driving	Non motorist charged with DUI
38	11/16/2011	Wed.	21:45	Collision w/ Bike			x	Night	Dry	Other	Fled scene
39	11/19/2011	Sat.	18:40	Collision w/ Ped		x		Night	Dry	FTYRW	
40	11/21/2011	Mon.	10:15	Collision w/ Bike		x		Day	Dry	Other	Fled scene
41	11/22/2011	Tue.	12:00	Rear End		x		Day	Dry	Careless Driving	
42	11/25/2011	Fri.	9:03	Collision w/ Bike		x		Day	Dry	Careless Driving	
43	11/29/2011	Tue.	23:10	Collision w/ Tree		x		Night	Dry	DUI	
44	12/2/2011	Fri.	11:05	Rear End		x		Day	Dry	Followed Too Closely	
45	12/5/2011	Mon.	15:55	Rear End			x	Day	Dry	Followed Too Closely	
46	12/18/2011	Sun.	17:07	Rear End		x		Day	Dry	DUI	

COLLISION SUMMARY

Section: 03010000
 Location: From Commercial Dr to Guilford Rd
 Study Period: 1/1/2011 to 12/31/2011
 No. of Years: 1

State Route: 90
 M.P.: 13.158 - 15.024
 County: Collier
 Engineer: HNTB

No.	Date	Day	Time	Type	Fatal	Injury	Prop. Damage	Day/Night	Wet/Dry	Contributing Cause	Comments
47	12/23/2011	Fri.	18:15	Rear End			x	Night	Dry	Careless Driving	

Total No.	Fatal	Injury	Property Damage	Angle	Left Turn	Head On	Ran Into Ditch	Rear End	Side Swipe	Collision w/ Tree	Overtaken	Collision w/ Pole	Right Turn	Run Off Road	Other
47	0	32	15	3	2	1	0	23	0	2	0	2	1	0	0
%	0	68	32	6	4	2	0	49	0	4	0	4	2	0	0
One Vehicle	Ped/Bike	Day	Night	Dry	Wet	Careless Driving	FTYRW	Improper Turn	DUI	Improper Lane Change	Followed Too Closely	Exceeded Speed Limit	Improper Load	No Improper Driving	Other
4	13	32	15	42	5	17	8	0	4	0	4	2	0	3	9
9	28	68	32	89	11	36	17	0	9	0	9	4	0	6	19

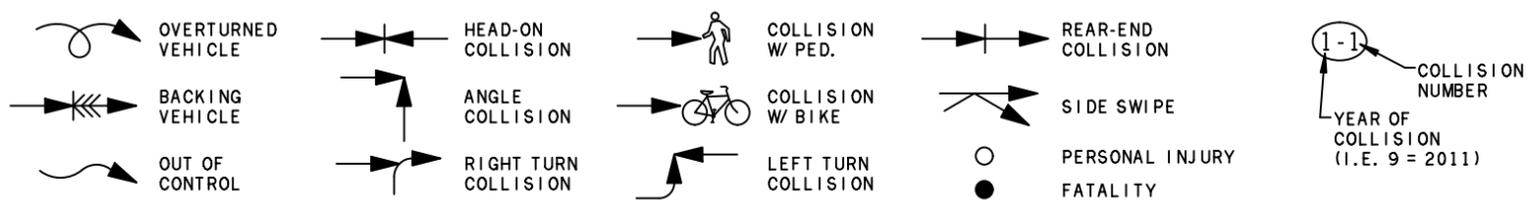
COLLISION DIAGRAM

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2011 TO 12/31/2011 PREPARED BY HNTB



MATCHLINE - SEE SHEET 2

SYMBOLS



CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	9	23	0	32
NIGHTTIME	6	9	0	15
TOTAL	15	32	0	47

COLLISION DIAGRAM

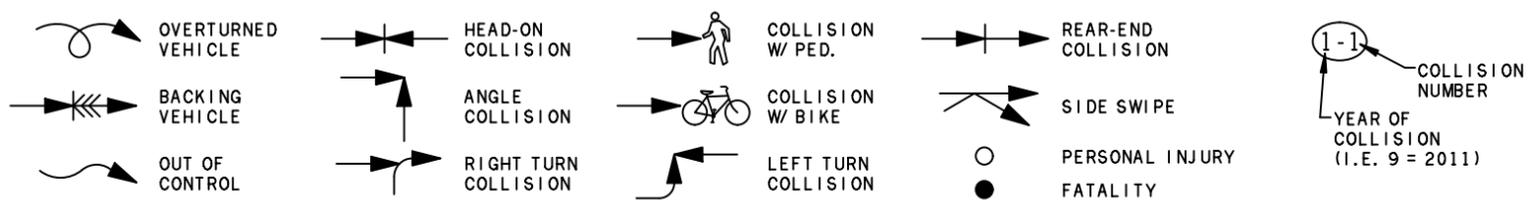
LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2011 TO 12/31/2011 PREPARED BY HNTB



MATCHLINE - SEE SHEET 1

MATCHLINE - SEE SHEET 3

SYMBOLS



CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	9	23	0	32
NIGHTTIME	6	9	0	15
TOTAL	15	32	0	47

COLLISION DIAGRAM

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2011 TO 12/31/2011 PREPARED BY HNTB



MATCHLINE - SEE SHEET 2

MATCHLINE - SEE SHEET 4

SYMBOLS

 OVERTURNED VEHICLE	 BACKING VEHICLE	 OUT OF CONTROL	 HEAD-ON COLLISION	 ANGLE COLLISION	 RIGHT TURN COLLISION	 COLLISION W/ PED.	 COLLISION W/ BIKE	 LEFT TURN COLLISION	 REAR-END COLLISION	 SIDE SWIPE	 PERSONAL INJURY	 FATALITY	 COLLISION NUMBER  YEAR OF COLLISION (I.E. 9 = 2011)
--	---	--	---	---	--	---	---	---	--	--	---	--	--

CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	9	23	0	32
NIGHTTIME	6	9	0	15
TOTAL	15	32	0	47

COLLISION DIAGRAM

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2011 TO 12/31/2011 PREPARED BY HNTB



MATCHLINE - SEE SHEET 3

MATCHLINE - SEE SHEET 5

SYMBOLS

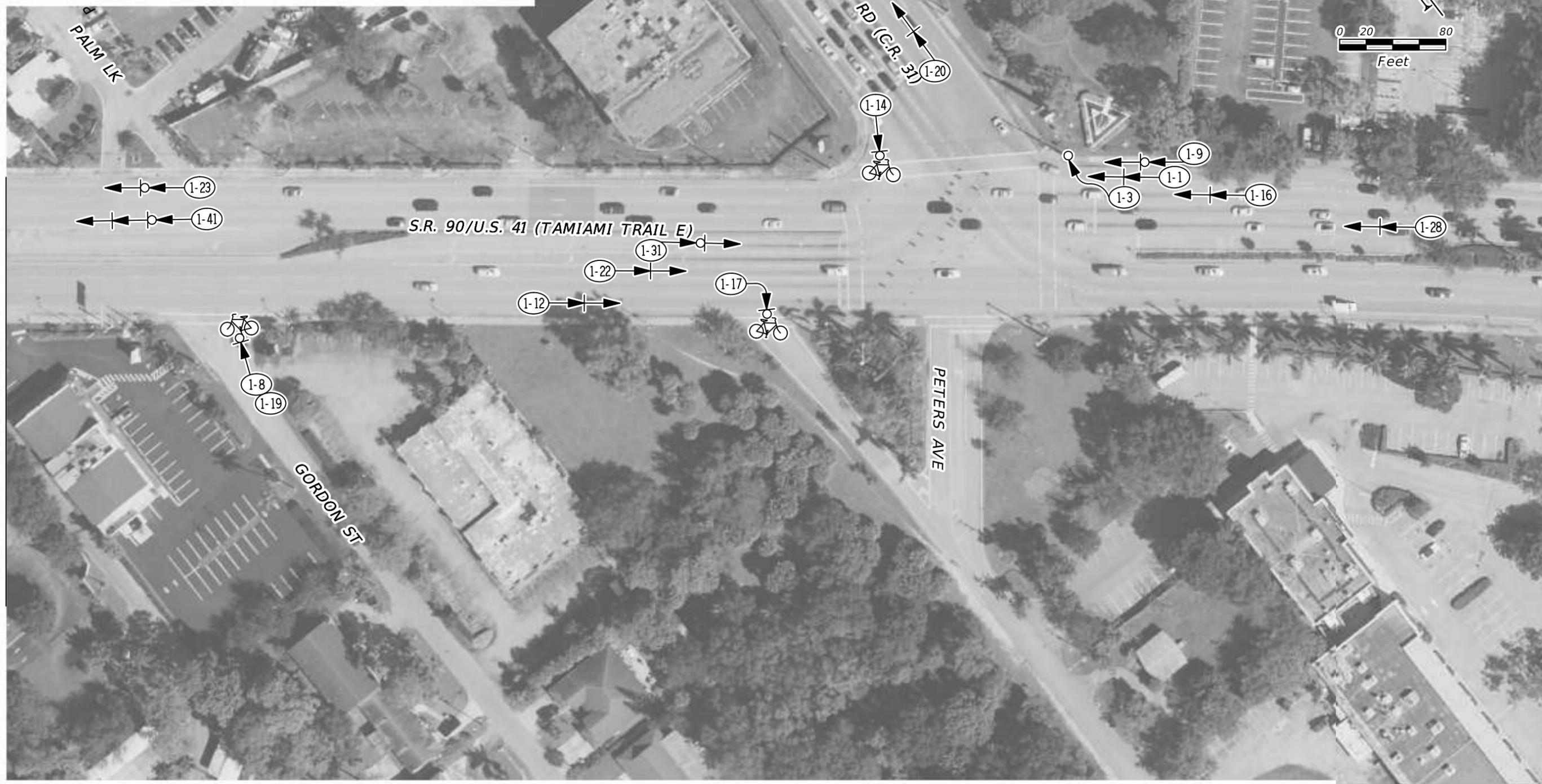
-  OVERTURNED VEHICLE
-  BACKING VEHICLE
-  OUT OF CONTROL
-  HEAD-ON COLLISION
-  ANGLE COLLISION
-  RIGHT TURN COLLISION
-  COLLISION W/ PED.
-  COLLISION W/ BIKE
-  LEFT TURN COLLISION
-  REAR-END COLLISION
-  SIDE SWIPE
-  PERSONAL INJURY
-  FATALITY
-  COLLISION NUMBER
 (I.E. 9 = 2011)

CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	9	23	0	32
NIGHTTIME	6	9	0	15
TOTAL	15	32	0	47

COLLISION DIAGRAM

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2011 TO 12/31/2011 PREPARED BY HNTB



MATCHLINE - SEE SHEET 4

MATCHLINE - SEE SHEET 6

SYMBOLS

OVERTURNED VEHICLE	BACKING VEHICLE	OUT OF CONTROL	HEAD-ON COLLISION	ANGLE COLLISION	RIGHT TURN COLLISION	COLLISION W/ PED.	COLLISION W/ BIKE	LEFT TURN COLLISION	REAR-END COLLISION	SIDE SWIPE	PERSONAL INJURY	FATALITY	COLLISION NUMBER YEAR OF COLLISION (I.E. 9 = 2011)

CRASH SUMMARY

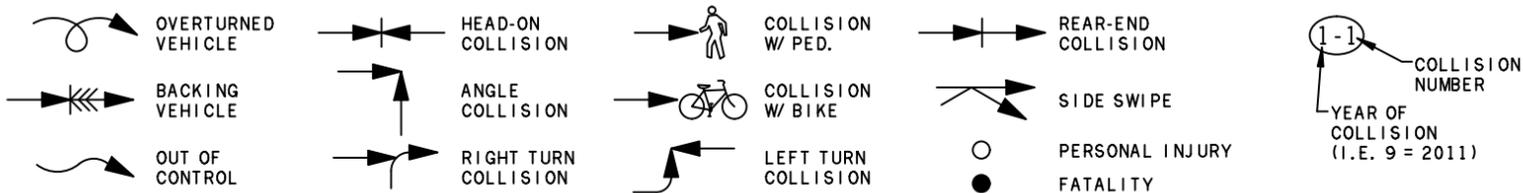
	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	9	23	0	32
NIGHTTIME	6	9	0	15
TOTAL	15	32	0	47

COLLISION DIAGRAM

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2011 TO 12/31/2011 PREPARED BY HNTB



SYMBOLS



CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	9	23	0	32
NIGHTTIME	6	9	0	15
TOTAL	15	32	0	47

MATCHLINE - SEE SHEET 7

COLLISION DIAGRAM

11.C.1

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2011 TO 12/31/2011 PREPARED BY HNTB



MATCHLINE - SEE SHEET 6

MATCHLINE - SEE SHEET 8

SHEET
7

SYMBOLS

 OVERTURNED VEHICLE	 BACKING VEHICLE	 OUT OF CONTROL	 HEAD-ON COLLISION	 ANGLE COLLISION	 RIGHT TURN COLLISION	 COLLISION W/ PED.	 COLLISION W/ BIKE	 LEFT TURN COLLISION	 REAR-END COLLISION	 SIDE SWIPE	 PERSONAL INJURY	 FATALITY	 COLLISION NUMBER YEAR OF COLLISION (I.E. 9 = 2011)
------------------------	---------------------	--------------------	-----------------------	---------------------	--------------------------	-----------------------	-----------------------	-------------------------	------------------------	----------------	---------------------	--------------	--

CRASH SUMMARY

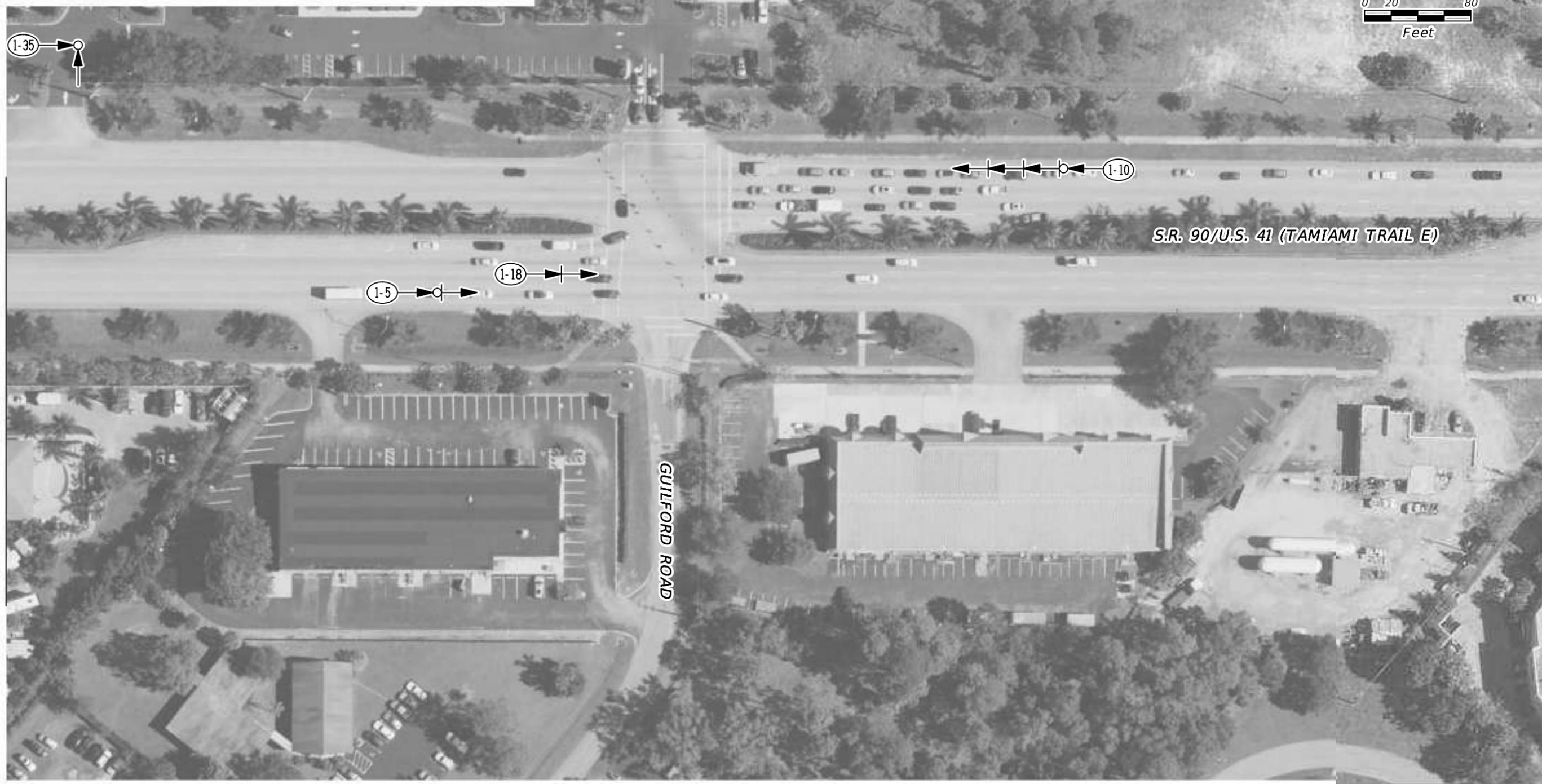
	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	9	23	0	32
NIGHTTIME	6	9	0	15
TOTAL	15	32	0	47

Packet Pg. 303

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm

COLLISION DIAGRAM

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2011 TO 12/31/2011 PREPARED BY HNTB



MATCHLINE - SEE SHEET 8

SYMBOLS

- | | | | | | | | |
|--|--------------------|--|----------------------|--|---------------------|--|-------------------------------------|
| | OVERTURNED VEHICLE | | HEAD-ON COLLISION | | COLLISION W/ PED. | | REAR-END COLLISION |
| | BACKING VEHICLE | | ANGLE COLLISION | | COLLISION W/ BIKE | | SIDE SWIPE |
| | OUT OF CONTROL | | RIGHT TURN COLLISION | | LEFT TURN COLLISION | | PERSONAL INJURY |
| | | | | | FATALITY | | COLLISION NUMBER
(I.E. 9 = 2011) |

CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	9	23	0	32
NIGHTTIME	6	9	0	15
TOTAL	15	32	0	47

COLLISION SUMMARY

Section: 03010000
 Location: From Commercial Dr to Guilford Rd
 Study Period: 1/1/2012 to 12/31/2012
 No. of Years: 1

State Route: 90
 M.P.: 13.158 - 15.024
 County: Collier

Engineer: HNTB

No.	Date	Day	Time	Type	Fatal	Injury	Prop. Damage	Day/ Night	Wet/ Dry	Contributing Cause	Comments
1	1/7/2012	Sat.	14:54	Rear End		x		Day	Dry	Careless Driving	
2	1/10/2012	Tue.	12:38	Collision w/ Bike		x		Day	Dry	No Improper Driving	
3	1/13/2012	Fri.	19:54	Other			x	Night	Dry	Improper Turn	
4	1/22/2012	Sun.	11:35	Fell From Vehicle		x		Day	Dry	Other	
5	1/27/2012	Fri.	15:36	Collision w/ Bike		x		Day	Wet	Careless Driving	
6	2/8/2012	Wed.	23:48	Collision w/ Tree			x	Night	Dry	DUI	
7	2/18/2012	Sat.	11:50	Collision w/ Bike		x		Day	Dry	No Improper Driving	
8	2/20/2012	Mon.	16:20	Rear End		x		Day	Dry	Careless Driving	
9	2/23/2012	Thu.	17:08	Collision w/ Bike		x		Day	Dry	FTYRW	
10	2/27/2012	Mon.	22:20	Rear End		x		Night	Wet	Careless Driving	
11	2/28/2012	Tue.	14:03	Collision w/ Bike		x		Day	Dry	FTYRW	
12	3/6/2012	Tue.	11:01	Rear End			x	Day	Dry	Followed Too Closely	
13	3/26/2012	Mon.	23:18	Collision w/ Bike		x		Night	Dry	DUI	
14	4/11/2012	Wed.	6:34	Rear End			x	Night	Dry	Other	Fled scene
15	5/4/2012	Fri.	21:52	Rear End		x		Night	Dry	Careless Driving	
16	5/14/2012	Mon.	17:33	Angle		x		Day	Dry	Other	
17	5/15/2012	Tue.	6:15	Rear End			x	Night	Dry	Followed Too Closely	
18	5/17/2012	Thu.	14:54	Rear End		x		Day	Dry	Careless Driving	
19	5/22/2012	Tue.	8:25	Rear End		x		Day	Dry	Followed Too Closely	
20	5/27/2012	Sun.	22:20	Right Turn		x		Night	Dry	DUI	
21	6/7/2012	Thu.	12:12	Rear End		x		Day	Dry	Careless Driving	
22	6/11/2012	Mon.	16:45	Rear End			x	Day	Dry	FTYRW	
23	6/26/2012	Tue.	7:25	Angle		x		Day	Wet	Other	Conflicting statements
24	6/30/2012	Sat.	17:28	Collision w/ Bike		x		Day	Dry	No Improper Driving	Non-motorist charged with DUI
25	7/6/2012	Fri.	10:54	Sideswipe		x		Day	Dry	Careless Driving	
26	7/22/2012	Sun.	17:25	Rear End		x		Day	Dry	Followed Too Closely	
27	8/3/2012	Fri.	12:30	Rear End		x		Day	Dry	Careless Driving	
28	8/5/2012	Sun.	13:20	Collision w/ Bike		x		Day	Dry	FTYRW	
29	8/9/2012	Thu.	17:17	Other		x		Day	Wet	Careless Driving	
30	8/9/2012	Thu.	18:15	Rear End		x		Day	Wet	Careless Driving	
31	8/28/2012	Tue.	22:53	Rear End			x	Night	Dry	Followed Too Closely	
32	9/10/2012	Mon.	8:12	Rear End			x	Day	Wet	Careless Driving	
33	9/12/2012	Wed.	3:58	Rear End			x	Day	Dry	Careless Driving	
34	9/15/2012	Sat.	9:40	Angle			x	Day	Dry	Disregarded Traffic Signal	
35	9/18/2012	Tue.	10:10	Rear End			x	Day	Dry	Other	Failure to maintain speed to avoid striking vehicle
36	9/22/2012	Sat.	22:16	Sideswipe			x	Night	Dry	FTYRW	
37	9/24/2012	Mon.	16:30	Rear End			x	Day	Dry	Careless Driving	
38	9/29/2012	Sat.	17:25	Rear End			x	Day	Dry	Followed Too Closely	
39	10/6/2012	Sat.	11:06	Sideswipe			x	Day	Dry	Careless Driving	
40	10/10/2012	Wed.	16:01	Rear End			x	Day	Dry	Followed Too Closely	
41	10/15/2012	Mon.	15:10	Rear End		x		Day	Dry	Careless Driving	
42	10/16/2012	Tue.	16:00	Rear End			x	Day	Dry	Careless Driving	
43	10/16/2012	Tue.	16:00	Rear End		x		Day	Dry	Careless Driving	
44	10/25/2012	Thu.	17:45	Rear End			x	Night	Wet	Followed Too Closely	
45	10/25/2012	Thu.	15:14	Rear End			x	Day	Wet	Followed Too Closely	
46	10/27/2012	Sat.	9:01	Angle		x		Day	Dry	Disregarded Traffic Signal	

COLLISION SUMMARY

Section: 03010000
 Location: From Commercial Dr to Guilford Rd
 Study Period: 1/1/2012 to 12/31/2012
 No. of Years: 1

State Route: 90
 M.P.: 13.158 - 15.024
 County: Collier

Engineer: HNTB

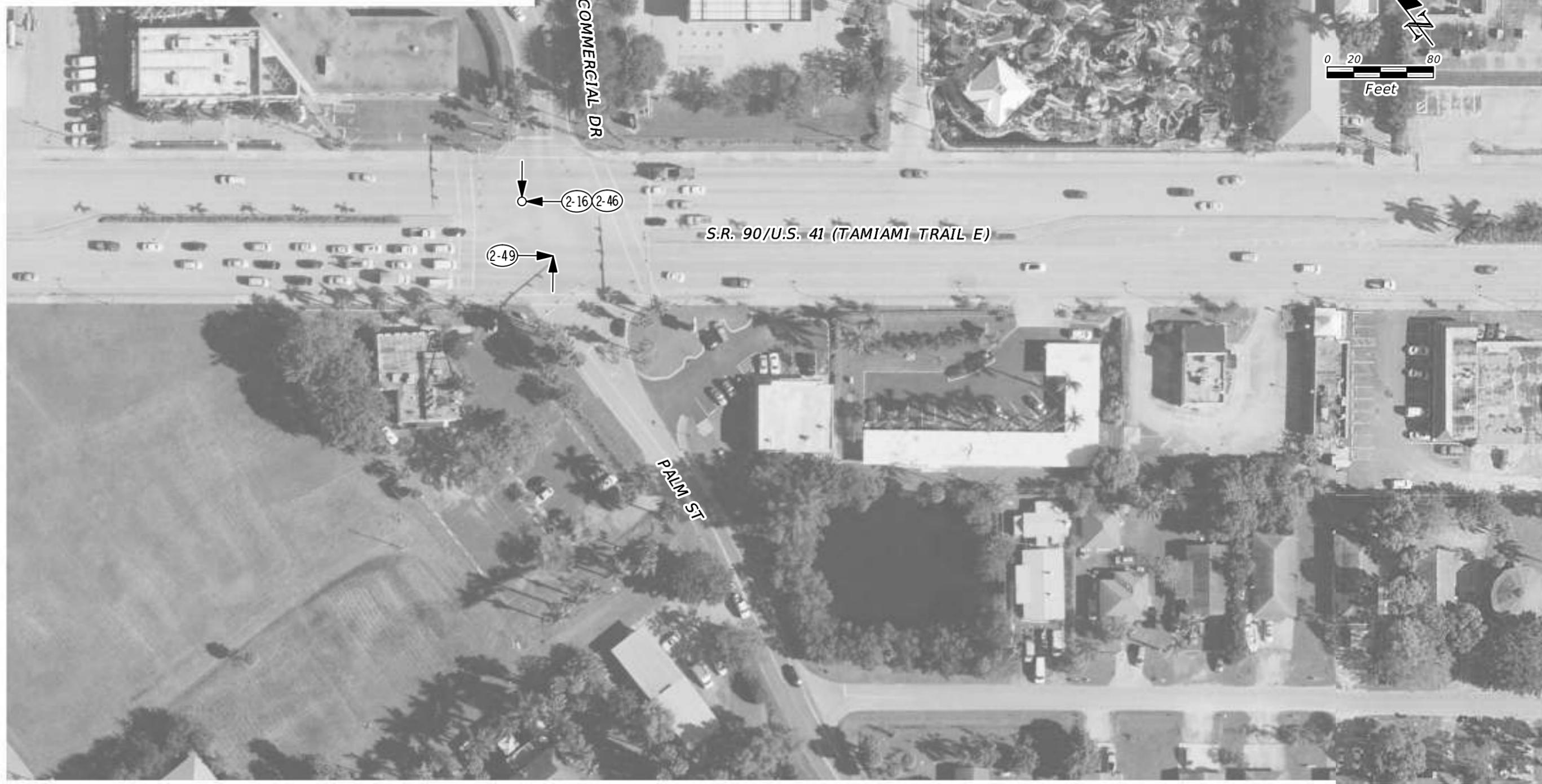
No.	Date	Day	Time	Type	Fatal	Injury	Prop. Damage	Day/Night	Wet/Dry	Contributing Cause	Comments
47	10/28/2012	Sun.	7:08	Sideswipe			x	Night	Dry	Careless Driving	Driver operated vehicle without headlights illuminated
48	11/5/2012	Mon.	12:50	Rear End			x	Day	Dry	Followed Too Closely	
49	11/5/2012	Mon.	10:10	Angle			x	Day	Dry	Disregarded Traffic Signal	
50	11/6/2012	Tue.	14:09	Rear End			x	Day	Dry	Careless Driving	
51	11/10/2012	Sat.	4:00	Rear End			x	Day	Dry	Careless Driving	
52	11/12/2012	Mon.	18:00	Rear End		x		Night	Dry	Careless Driving	
53	11/13/2012	Tue.	14:30	Rear End			x	Day	Dry	Careless Driving	
54	11/15/2012	Thu.	0:30	Rear End			x	Day	Dry	Followed Too Closely	
55	11/27/2012	Tue.	11:05	Sideswipe			x	Day	Dry	Careless Driving	
56	11/28/2012	Wed.	12:35	Sideswipe			x	Day	Dry	Other	Failure to paintain proper lane
57	11/29/2012	Thu.	15:42	Collision w/ Bike		x		Day	Dry	No Improper Driving	
58	11/29/2012	Thu.	14:32	Collision w/ Bike		x		Day	Dry	No Improper Driving	
59	12/3/2012	Mon.	12:19	Rear End			x	Day	Dry	Careless Driving	
60	12/5/2012	Wed.	14:34	Median Crossover			x	Day	Dry	Careless Driving	Attempted to make a u-turn and completed 360° circle
61	12/6/2012	Thu.	14:14	Right Turn			x	Day	Dry	Careless Driving	
62	12/8/2012	Sat.	14:10	Rear End			x	Day	Wet	Followed Too Closely	
63	12/12/2012	Wed.	19:08	Sideswipe			x	Night	Dry	Improper Lane Change	
64	12/12/2012	Wed.	15:05	Rear End			x	Day	Dry	Followed Too Closely	
65	12/17/2012	Mon.	12:41	Rear End			x	Day	Dry	Other	
66	12/18/2012	Tue.	12:37	Collision w/ Bike		x		Day	Dry	No Improper Driving	
67	12/23/2012	Sun.	1:23	Rear End			x	Night	Dry	DUI	
68	12/29/2012	Sat.	9:50	Rear End			x	Day	Dry	Followed Too Closely	
69	12/29/2012	Sat.	19:20	Rear End			x	Night	Dry	Careless Driving	
70	12/29/2012	Sat.	21:57	Rear End			x	Night	Dry	Followed Too Closely	

Total No.	Fatal	Injury	Property Damage	Angle	Left Turn	Head On	Ran Into Ditch	Rear End	Side Swipe	Collision w/ Tree	Fell From Vehicle	Collision w/ Pole	Right Turn	Median Crossover	Other
70	0	31	39	5	0	0	0	40	7	1	1	0	2	1	2
%	0	44	56	7	0	0	0	57	10	1	1	0	3	1	3
One Vehicle	Ped/ Bike	Day	Night	Dry	Wet	Careless Driving	FTYRW	Improper Turn	DUI	Improper Lane Change	Disregarded Traffic Signal	Followed Too Closely	Improper Load	No Improper Driving	Other
2	11	53	17	61	9	28	5	1	4	1	3	15	0	6	7
3	16	76	24	87	13	40	7	1	6	1	4	21	0	9	10

COLLISION DIAGRAM

11.C.1

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2012 TO 12/31/2012 PREPARED BY HNTB



MATCHLINE - SEE SHEET 2

SHEET
1

SYMBOLS

 OVERTURNED VEHICLE	 BACKING VEHICLE	 OUT OF CONTROL	 HEAD-ON COLLISION	 ANGLE COLLISION	 RIGHT TURN COLLISION	 COLLISION W/ PED.	 COLLISION W/ BIKE	 LEFT TURN COLLISION	 REAR-END COLLISION	 SIDE SWIPE	 PERSONAL INJURY	 FATALITY	 COLLISION NUMBER (I.E. 9 = 2011)
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CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	27	26	0	53
NIGHTTIME	12	5	0	17
TOTAL	39	51	0	90

Packet Pg. 308

COLLISION DIAGRAM

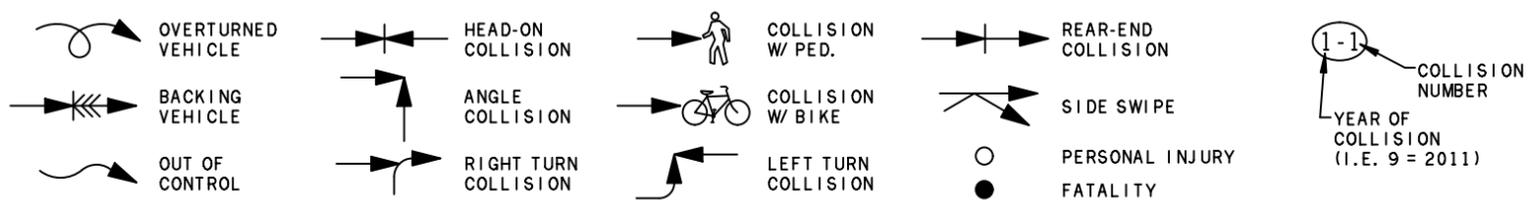
LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2012 TO 12/31/2012 PREPARED BY HNTB



MATCHLINE - SEE SHEET 1

MATCHLINE - SEE SHEET 3

SYMBOLS



CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	27	26	0	53
NIGHTTIME	12	5	0	17
TOTAL	39	51	0	90

COLLISION DIAGRAM

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2012 TO 12/31/2012 PREPARED BY HNTB



MATCHLINE - SEE SHEET 2

MATCHLINE - SEE SHEET 4

SYMBOLS

 OVERTURNED VEHICLE	 BACKING VEHICLE	 OUT OF CONTROL	 HEAD-ON COLLISION	 ANGLE COLLISION	 RIGHT TURN COLLISION	 COLLISION W/ PED.	 COLLISION W/ BIKE	 LEFT TURN COLLISION	 REAR-END COLLISION	 SIDE SWIPE	 PERSONAL INJURY	 FATALITY	 COLLISION NUMBER YEAR OF COLLISION (I.E. 9 = 2011)
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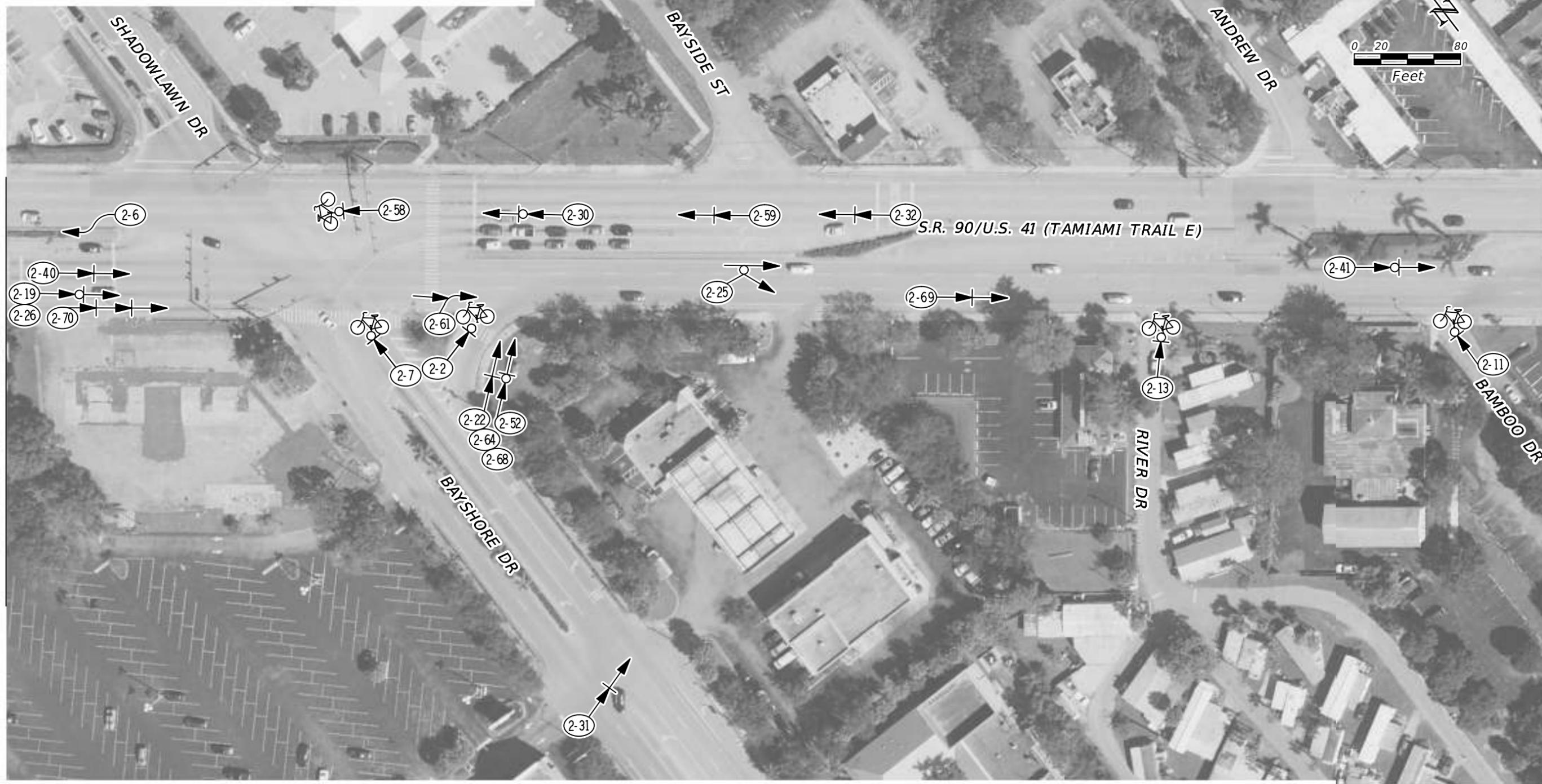
CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	27	26	0	53
NIGHTTIME	12	5	0	17
TOTAL	39	51	0	90

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COLLISION DIAGRAM

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2012 TO 12/31/2012 PREPARED BY HNTB



MATCHLINE - SEE SHEET 3

MATCHLINE - SEE SHEET 5

SYMBOLS

-
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CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	27	26	0	53
NIGHTTIME	12	5	0	17
TOTAL	39	51	0	90

COLLISION DIAGRAM

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2012 TO 12/31/2012 PREPARED BY HNTB



MATCHLINE - SEE SHEET 4

MATCHLINE - SEE SHEET 6

SYMBOLS

				 COLLISION NUMBER YEAR OF COLLISION (I.E. 9 = 2011)
			 PERSONAL INJURY FATALITY	

CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	27	26	0	53
NIGHTTIME	12	5	0	17
TOTAL	39	51	0	90

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COLLISION DIAGRAM

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2012 TO 12/31/2012 PREPARED BY HNTB



MATCHLINE - SEE SHEET 7

SYMBOLS

- | | | | | | | | | |
|--|--------------------|--|----------------------|--|---------------------|--|--------------------|--|
| | OVERTURNED VEHICLE | | HEAD-ON COLLISION | | COLLISION W/ PED. | | REAR-END COLLISION |
COLLISION NUMBER
YEAR OF COLLISION
(I.E. 9 = 2011) |
| | BACKING VEHICLE | | ANGLE COLLISION | | COLLISION W/ BIKE | | SIDE SWIPE | |
| | OUT OF CONTROL | | RIGHT TURN COLLISION | | LEFT TURN COLLISION | | PERSONAL INJURY | |
| | | | | | FATALITY | | | |

CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	27	26	0	53
NIGHTTIME	12	5	0	17
TOTAL	39	51	0	90

COLLISION DIAGRAM

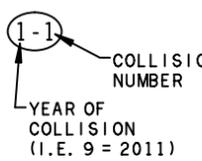
LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2012 TO 12/31/2012 PREPARED BY HNTB



MATCHLINE - SEE SHEET 6

MATCHLINE - SEE SHEET 8

SYMBOLS

-  OVERTURNED VEHICLE
-  BACKING VEHICLE
-  OUT OF CONTROL
-  HEAD-ON COLLISION
-  ANGLE COLLISION
-  RIGHT TURN COLLISION
-  COLLISION W/ PED.
-  COLLISION W/ BIKE
-  LEFT TURN COLLISION
-  REAR-END COLLISION
-  SIDE SWIPE
-  PERSONAL INJURY
FATALITY
-  COLLISION NUMBER
YEAR OF COLLISION
(I.E. 9 = 2011)

CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	27	26	0	53
NIGHTTIME	12	5	0	17
TOTAL	39	51	0	90

COLLISION DIAGRAM

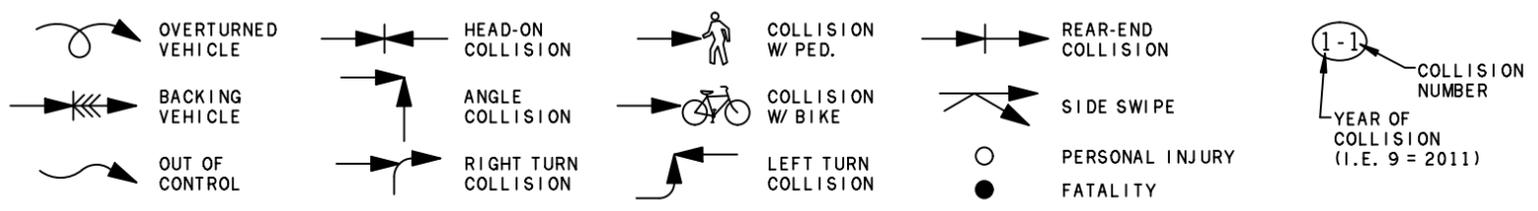
LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2012 TO 12/31/2012 PREPARED BY HNTB



MATCHLINE - SEE SHEET 7

MATCHLINE - SEE SHEET 9

SYMBOLS



CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	27	26	0	53
NIGHTTIME	12	5	0	17
TOTAL	39	51	0	90

COLLISION DIAGRAM

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2012 TO 12/31/2012 PREPARED BY HNTB



MATCHLINE - SEE SHEET 8

SYMBOLS

OVERTURNED VEHICLE	BACKING VEHICLE	OUT OF CONTROL	HEAD-ON COLLISION	ANGLE COLLISION	RIGHT TURN COLLISION	COLLISION W/ PED.	COLLISION W/ BIKE	LEFT TURN COLLISION	REAR-END COLLISION	SIDE SWIPE	PERSONAL INJURY	FATALITY	COLLISION NUMBER (I.E. 9 = 2011)

CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	27	26	0	53
NIGHTTIME	12	5	0	17
TOTAL	39	51	0	90

COLLISION SUMMARY

Section: 03010000
 Location: From Commercial Dr to Guilford Rd
 Study Period: 1/1/2013 to 12/31/2013
 No. of Years: 1

State Route: 90
 M.P.: 13.158 - 15.024
 County: Collier

Engineer: HNTB

No.	Date	Day	Time	Type	Fatal	Injury	Prop. Damage	Day/Night	Wet/Dry	Contributing Cause	Comments
1	1/2/2013	Wed.	15:09	Sideswipe			x	Day	Dry	Careless Driving	
2	1/4/2013	Fri.	0:20	Left Turn			x	Night	Dry	FTYRW	
3	1/10/2013	Thu.	13:38	Rear End			x	Day	Dry	Careless Driving	
4	1/14/2013	Mon.	16:40	Rear End			x	Day	Dry	Followed Too Closely	
5	1/15/2013	Tue.	9:15	Sideswipe			x	Day	Dry	Careless Driving	
6	1/19/2013	Sat.	15:36	Collision w/ Bike		x		Day	Dry	FTYRW	
7	1/23/2013	Wed.	8:35	Rear End			x	Day	Dry	Followed Too Closely	
8	1/24/2013	Thu.	12:30	Rear End			x	Day	Dry	Followed Too Closely	
9	1/27/2013	Sun.	13:31	Rear End		x		Day	Dry	Careless Driving	
10	1/28/2013	Mon.	2:15	Rear End		x		Night	Dry	DUI	
11	1/28/2013	Mon.	15:10	Sideswipe			x	Day	Dry	Other	
12	1/29/2013	Tue.	9:10	Rear End			x	Day	Dry	Followed Too Closely	
13	1/31/2013	Thu.	13:21	Rear End			x	Day	Dry	Careless Driving	
14	1/31/2013	Thu.	10:52	Sideswipe			x	Day	Dry	Careless Driving	
15	2/1/2013	Fri.	12:10	Sideswipe			x	Day	Dry	Followed Too Closely	
16	2/1/2013	Fri.	9:00	Rear End			x	Day	Dry	Followed Too Closely	
17	2/1/2013	Fri.	16:15	Rear End			x	Day	Dry	Followed Too Closely	
18	2/5/2013	Tue.	10:50	Right Turn			x	Day	Dry	FTYRW	
19	2/6/2013	Wed.	13:40	Rear End			x	Day	Dry	Followed Too Closely	
20	2/8/2013	Fri.	14:15	Left Turn			x	Day	Dry	Disregarded Traffic Signal	
21	2/10/2013	Sun.	21:54	Angle			x	Night	Dry	Disregarded Traffic Signal	
22	2/11/2013	Mon.	11:22	Rear End		x		Day	Dry	Followed Too Closely	
23	2/14/2013	Thu.	13:10	Rear End		x		Day	Dry	Followed Too Closely	
24	2/15/2013	Fri.	8:55	Rear End			x	Day	Wet	Careless Driving	
25	2/15/2013	Fri.	18:00	Collision w/ Bike		x		Day	Dry	FTYRW	
26	2/16/2013	Sat.	11:40	Rear End		x		Day	Dry	Careless Driving	
27	2/16/2013	Sat.	16:06	Rear End			x	Day	Dry	Careless Driving	
28	2/18/2013	Mon.	20:46	Rear End			x	Night	Dry	Careless Driving	
29	2/19/2013	Tue.	18:46	Rear End			x	Night	Dry	Followed Too Closely	
30	2/20/2013	Wed.	15:57	Rear End		x		Day	Dry	Careless Driving	
31	2/20/2013	Wed.	12:54	Rear End			x	Day	Dry	Careless Driving	
32	2/23/2013	Sat.	10:20	Right Turn			x	Day	Dry	Other	Conflicting statements
33	2/24/2013	Sun.	18:50	Collision w/ Bike			x	Night	Dry	FTYRW	
34	2/25/2013	Mon.	18:00	Rear End			x	Day	Dry	Careless Driving	
35	2/26/2013	Tue.	8:07	Rear End			x	Day	Dry	Careless Driving	
36	2/27/2013	Wed.	15:07	Rear End			x	Day	Wet	Followed Too Closely	
37	2/27/2013	Wed.	14:42	Rear End			x	Day	Wet	Followed Too Closely	
38	2/28/2013	Thu.	14:40	Collision w/ Tree		x		Day	Dry	Careless Driving	
39	3/1/2013	Fri.	16:46	Rear End		x		Day	Dry	Careless Driving	
40	3/2/2013	Sat.	10:35	Rear End		x		Day	Dry	Other	
41	3/4/2013	Mon.	11:55	Rear End		x		Day	Dry	Careless Driving	
42	3/6/2013	Wed.	15:50	Rear End		x		Day	Dry	Careless Driving	
43	3/6/2013	Wed.	16:26	Rear End			x	Day	Dry	Careless Driving	
44	3/7/2013	Thu.	1:50	Rear End		x		Night	Dry	Careless Driving	
45	3/10/2013	Sun.	15:43	Collision w/ Bike		x		Day	Dry	No Improper Driving	Non-motorist failed to yield right of way
46	3/19/2013	Tue.	13:05	Rear End		x		Day	Dry	Followed Too Closely	

COLLISION SUMMARY

Section: 03010000
 Location: From Commercial Dr to Guilford Rd
 Study Period: 1/1/2013 to 12/31/2013
 No. of Years: 1

State Route: 90
 M.P.: 13.158 - 15.024
 County: Collier

Engineer: HNTB

No.	Date	Day	Time	Type	Fatal	Injury	Prop. Damage	Day/ Night	Wet/ Dry	Contributing Cause	Comments
47	3/21/2013	Thu.	1:37	Collision w/ Tree			x	Night	Wet	Careless Driving	
48	3/21/2013	Thu.	9:00	Overtuned			x	Day	Dry	Careless Driving	
49	3/24/2013	Sun.	19:40	Sideswipe			x	Night	Wet	Improper Lane Change	
50	3/26/2013	Tue.	13:15	Rear End			x	Day	Dry	Careless Driving	
51	3/28/2013	Thu.	16:15	Rear End		x		Day	Dry	Careless Driving	
52	3/30/2013	Sat.	12:35	Sideswipe			x	Day	Dry	Improper Lane Change	
53	3/30/2013	Sat.	17:49	Rear End		x		Day	Dry	Careless Driving	
54	4/1/2013	Mon.	13:30	Rear End			x	Day	Dry	Followed Too Closely	
55	4/3/2013	Wed.	12:45	Rear End			x	Day	Dry	Followed Too Closely	
56	4/3/2013	Wed.	11:24	Overtuned			x	Day	Dry	Improper Load	
57	4/3/2013	Wed.	16:53	Rear End			x	Day	Dry	Careless Driving	
58	4/3/2013	Wed.	17:25	Right Turn			x	Day	Dry	FTYRW	
59	4/5/2013	Fri.	7:45	Sideswipe			x	Day	Wet	Improper Lane Change	
60	4/16/2013	Tue.	13:30	Rear End			x	Day	Dry	Careless Driving	
61	4/17/2013	Wed.	21:07	Rear End			x	Night	Wet	Careless Driving	
62	5/2/2013	Thu.	20:25	Rear End			x	Night	Wet	Followed Too Closely	
63	5/10/2013	Fri.	10:22	Sideswipe			x	Day	Dry	Improper Lane Change	
64	5/13/2013	Mon.	17:20	Rear End		x		Day	Dry	Other	
65	5/17/2013	Fri.	17:15	Angle			x	Day	Dry	FTYRW	
66	5/19/2013	Sun.	20:10	Rear End			x	Night	Dry	Followed Too Closely	
67	5/24/2013	Fri.	11:47	Rear End			x	Day	Dry	Careless Driving	
68	5/28/2013	Tue.	13:06	Rear End			x	Day	Dry	Followed Too Closely	
69	5/31/2013	Fri.	9:56	Rear End			x	Day	Dry	Followed Too Closely	
70	6/4/2013	Tue.	14:15	Rear End			x	Day	Dry	Followed Too Closely	
71	6/5/2013	Wed.	13:09	Rear End			x	Day	Wet	Other	
72	6/6/2013	Thu.	19:09	Rear End			x	Day	Wet	Careless Driving	
73	6/11/2013	Tue.	9:25	Sideswipe			x	Day	Dry	Improper Lane Change	
74	6/20/2013	Thu.	18:31	Rear End			x	Day	Wet	Followed Too Closely	
75	6/24/2013	Mon.	14:07	Rear End		x		Day	Dry	Careless Driving	
76	6/24/2013	Mon.	17:08	Rear End			x	Day	Wet	Followed Too Closely	
77	6/28/2013	Fri.	20:17	Rear End			x	Day	Dry	Other	Fled scene
78	7/12/2013	Fri.	21:22	Rear End		x		Night	Dry	Careless Driving	
79	7/13/2013	Sat.	15:37	Collision w/ Bike		x		Day	Dry	Improper Turn	
80	7/21/2013	Sun.	16:38	Left Turn			x	Day	Dry	Careless Driving	
81	7/27/2013	Sat.	10:55	Sideswipe			x	Day	Dry	Careless Driving	
82	8/6/2013	Tue.	11:03	Rear End			x	Day	Dry	Other	Stopped in intersection for northbound vehicle
83	8/12/2013	Mon.	13:27	Sideswipe			x	Day	Dry	Improper Lane Change	
84	8/12/2013	Mon.	17:32	Left Turn		x		Day	Dry	FTYRW	
85	8/14/2013	Wed.	14:53	Rear End			x	Day	Dry	Followed Too Closely	Stopped at crosswalk for pedestrian
86	8/16/2013	Fri.	13:01	Rear End			x	Day	Dry	Careless Driving	
87	8/18/2013	Sun.	18:35	Rear End			x	Day	Wet	Other	Vehicle preformed u-turn and violated right of way of westbou
88	8/21/2013	Wed.	15:15	Rear End			x	Day	Dry	Followed Too Closely	
89	8/21/2013	Wed.	10:00	Rear End			x	Day	Dry	Followed Too Closely	
90	8/23/2013	Fri.	12:51	Sideswipe			x	Day	Dry	Improper Passing	
91	8/27/2013	Tue.	15:30	Rear End			x	Day	Wet	Followed Too Closely	
92	8/30/2013	Fri.	16:46	Rear End			x	Day	Dry	Followed Too Closely	

COLLISION SUMMARY

Section: 03010000
 Location: From Commercial Dr to Guilford Rd
 Study Period: 1/1/2013 to 12/31/2013
 No. of Years: 1

State Route: 90
 M.P.: 13.158 - 15.024
 County: Collier

Engineer: HNTB

No.	Date	Day	Time	Type	Fatal	Injury	Prop. Damage	Day/ Night	Wet/ Dry	Contributing Cause	Comments
93	9/3/2013	Tue.	14:36	Sideswipe			x	Day	Dry	Improper Lane Change	
94	9/4/2013	Wed.	12:06	Backed Into			x	Day	Dry	Careless Driving	
95	9/9/2013	Mon.	8:55	Sideswipe			x	Day	Dry	Careless Driving	
96	9/14/2013	Sat.	9:35	Collision w/ Bike	x			Day	Dry	No Improper Driving	
97	9/18/2013	Wed.	12:18	Collision w/ Bike		x		Day	Dry	No Improper Driving	
98	9/18/2013	Wed.	12:30	Angle		x		Day	Dry	Disregarded Traffic Signal	
99	9/21/2013	Sat.	18:18	Rear End			x	Day	Dry	Other	Collision with vehicle stopped waiting to turn left onto private
100	9/21/2013	Sat.	16:37	Rear End			x	Day	Dry	Careless Driving	
101	9/22/2013	Sun.	0:40	Collision w/ Tree			x	Night	Dry	Exceeded Speed Limit	
102	9/27/2013	Fri.	14:07	Rear End			x	Day	Dry	Careless Driving	
103	9/29/2013	Sun.	11:30	Collision w/ Bike		x		Day	Dry	FTYRW	
104	10/3/2013	Thu.	9:15	Rear End		x		Day	Dry	Careless Driving	
105	10/5/2013	Sat.	23:27	Collision w/ Ped		x		Night	Dry	No Improper Driving	Non-motorist had a BAC of .280
106	10/9/2013	Wed.	16:30	Sideswipe			x	Day	Dry	Other	Conflicting statements
107	10/9/2013	Wed.	18:15	Rear End			x	Day	Dry	Exceeded Speed Limit	
108	10/11/2013	Fri.	18:08	Off Road			x	Day	Dry	Other	In violation of learners permit restrictions
109	10/12/2013	Sat.	12:34	Rear End			x	Day	Dry	Careless Driving	
110	10/13/2013	Sun.	19:35	Rear End			x	Night	Dry	Followed Too Closely	
111	10/14/2013	Mon.	17:32	Rear End			x	Day	Dry	Other	
112	10/17/2013	Thu.	7:50	Sideswipe			x	Day	Dry	Other	Fled scene
113	10/24/2013	Thu.	14:20	Rear End			x	Day	Dry	Followed Too Closely	
114	10/28/2013	Mon.	7:01	Rear End			x	Night	Dry	Followed Too Closely	
115	11/1/2013	Fri.	16:25	Rear End			x	Day	Dry	Followed Too Closely	Vision obstructed by the glare of the sun
116	11/3/2013	Sun.	12:50	Rear End		x		Day	Dry	Careless Driving	
117	11/10/2013	Sun.	12:22	Rear End			x	Day	Dry	Followed Too Closely	
118	11/20/2013	Wed.	11:47	Sideswipe		x		Day	Dry	FTYRW	
119	11/25/2013	Mon.	2:14	Collision w/ Bike		x		Day	Dry	No Improper Driving	
120	11/27/2013	Wed.	13:45	Rear End			x	Day	Dry	Followed Too Closely	
121	11/30/2013	Sat.	17:25	Rear End			x	Day	Dry	Followed Too Closely	
122	12/3/2013	Tue.	7:00	Rear End			x	Day	Dry	Improper Lane Change	
123	12/5/2013	Thu.	15:04	Rear End			x	Day	Dry	Followed Too Closely	
124	12/6/2013	Fri.	16:57	Rear End			x	Day	Dry	Followed Too Closely	
125	12/6/2013	Fri.	17:38	Rear End		x		Night	Dry	Improper Turn	
126	12/10/2013	Tue.	11:25	Rear End		x		Day	Dry	Followed Too Closely	
127	12/10/2013	Tue.	16:11	Rear End		x		Day	Dry	Careless Driving	
128	12/11/2013	Wed.	17:38	Rear End		x		Night	Dry	Careless Driving	
129	12/16/2013	Mon.	16:45	Overtuned			x	Day	Dry	Other	Attempted to avoid collision with vehicle making a u-turn
130	12/19/2013	Thu.	9:25	Rear End		x		Day	Dry	Followed Too Closely	
131	12/20/2013	Fri.	1:33	Collision w/ Bike		x		Day	Dry	FTYRW	
132	12/25/2013	Wed.	13:54	Rear End		x		Day	Dry	Followed Too Closely	
133	12/26/2013	Thu.	14:12	Angle		x		Day	Dry	Disregarded Traffic Signal	
134	12/29/2013	Sun.	11:00	Rear End			x	Day	Wet	Other	
135	12/29/2013	Sun.	14:28	Rear End			x	Day	Dry	Careless Driving	
136	12/31/2013	Tue.	12:09	Rear End			x	Day	Dry	Careless Driving	
137	12/31/2013	Tue.	12:00	Left Turn			x	Day	Dry	Disregarded Traffic Signal	
138	12/31/2013	Tue.	16:10	Angle		x		Day	Dry	Other	

COLLISION SUMMARY

Section: 03010000
 Location: From Commercial Dr to Guilford Rd
 Study Period: 1/1/2013 to 12/31/2013
 No. of Years: 1

State Route: 90
 M.P.: 13.158 - 15.024
 County: Collier

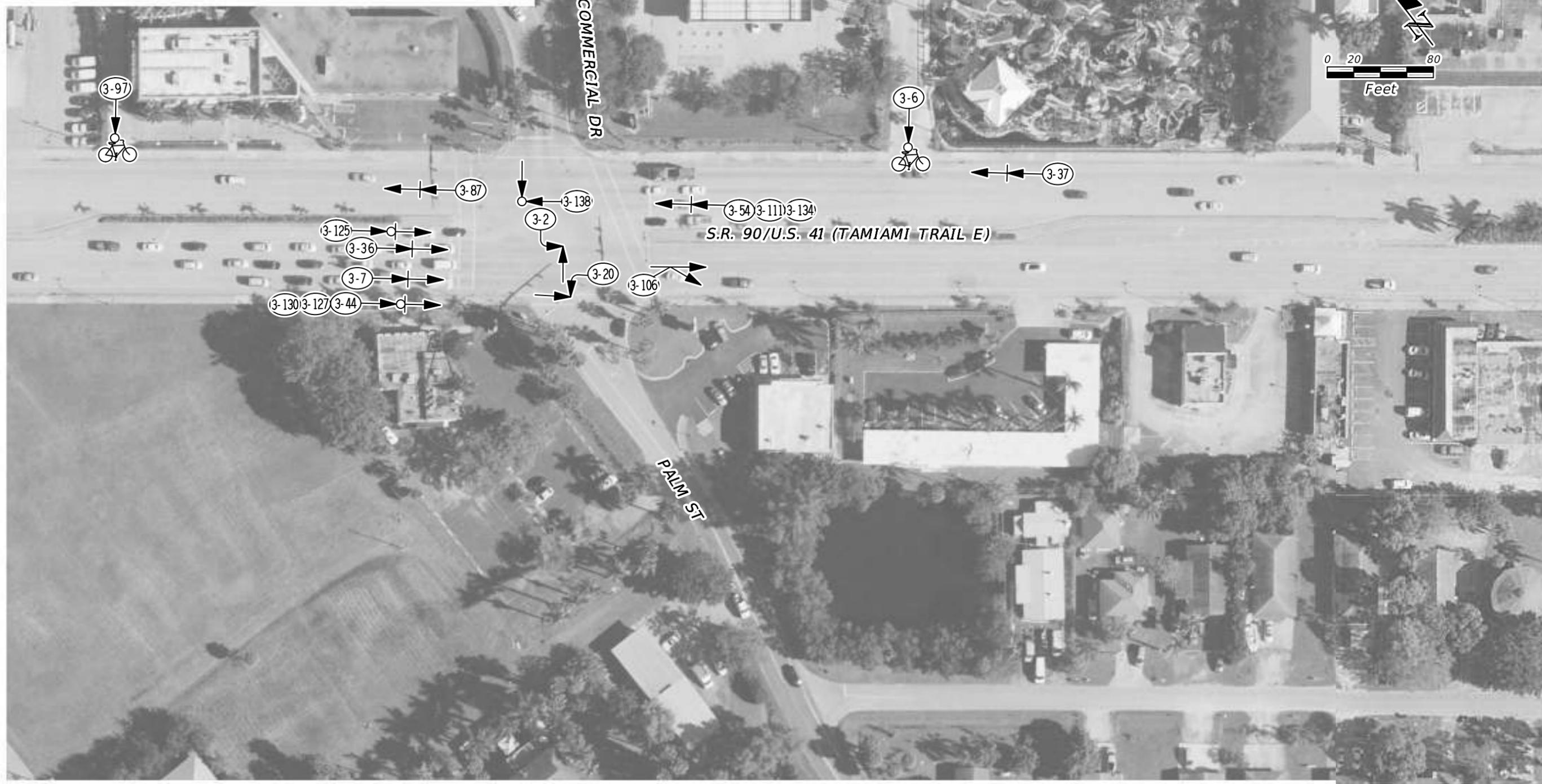
Engineer: HNTB

No.	Date	Day	Time	Type	Fatal	Injury	Prop. Damage	Day/ Night	Wet/ Dry	Contributing Cause	Comments
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Total No.	Fatal	Injury	Property Damage	Angle	Left Turn	Head On	Right Turn	Rear End	Side Swipe	Collision w/ Tree	Overtuned	Collision w/ Pole	Backed Into	Run Off Road	Other
138	1	40	97	5	5	0	3	88	18	3	3	0	1	1	0
%	1	29	70	4	4	0	2	64	13	2	2	0	1	1	0
One Vehicle	Ped/ Bike	Day	Night	Dry	Wet	Careless Driving	FTYRW	Improper Turn	DUI	Improper Lane Change	Disregarded Traffic Signal	Followed Too Closely	Improper Load	No Improper Driving	Other
6	11	119	19	123	15	46	11	2	1	8	5	40	1	5	16
4	8	86	14	89	11	33	8	1	1	6	4	29	1	4	12
Improper Passing	Exceeded Speed Limit														
1	2														
1	1														

COLLISION DIAGRAM

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2013 TO 12/31/2013 PREPARED BY HNTB



MATCHLINE - SEE SHEET 2

SYMBOLS

-  OVERTURNED VEHICLE
-  BACKING VEHICLE
-  OUT OF CONTROL
-  HEAD-ON COLLISION
-  ANGLE COLLISION
-  RIGHT TURN COLLISION
-  COLLISION W/ PED.
-  COLLISION W/ BIKE
-  LEFT TURN COLLISION
-  REAR-END COLLISION
-  SIDE SWIPE
-  PERSONAL INJURY
-  FATALITY
-  COLLISION NUMBER
 YEAR OF COLLISION
 (I.E. 9 = 2011)

CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	84	34	1	119
NIGHTTIME	13	6	0	19
TOTAL	97	40	1	138

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COLLISION DIAGRAM

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2013 TO 12/31/2013 PREPARED BY HNTB



MATCHLINE - SEE SHEET 1

MATCHLINE - SEE SHEET 3

SYMBOLS

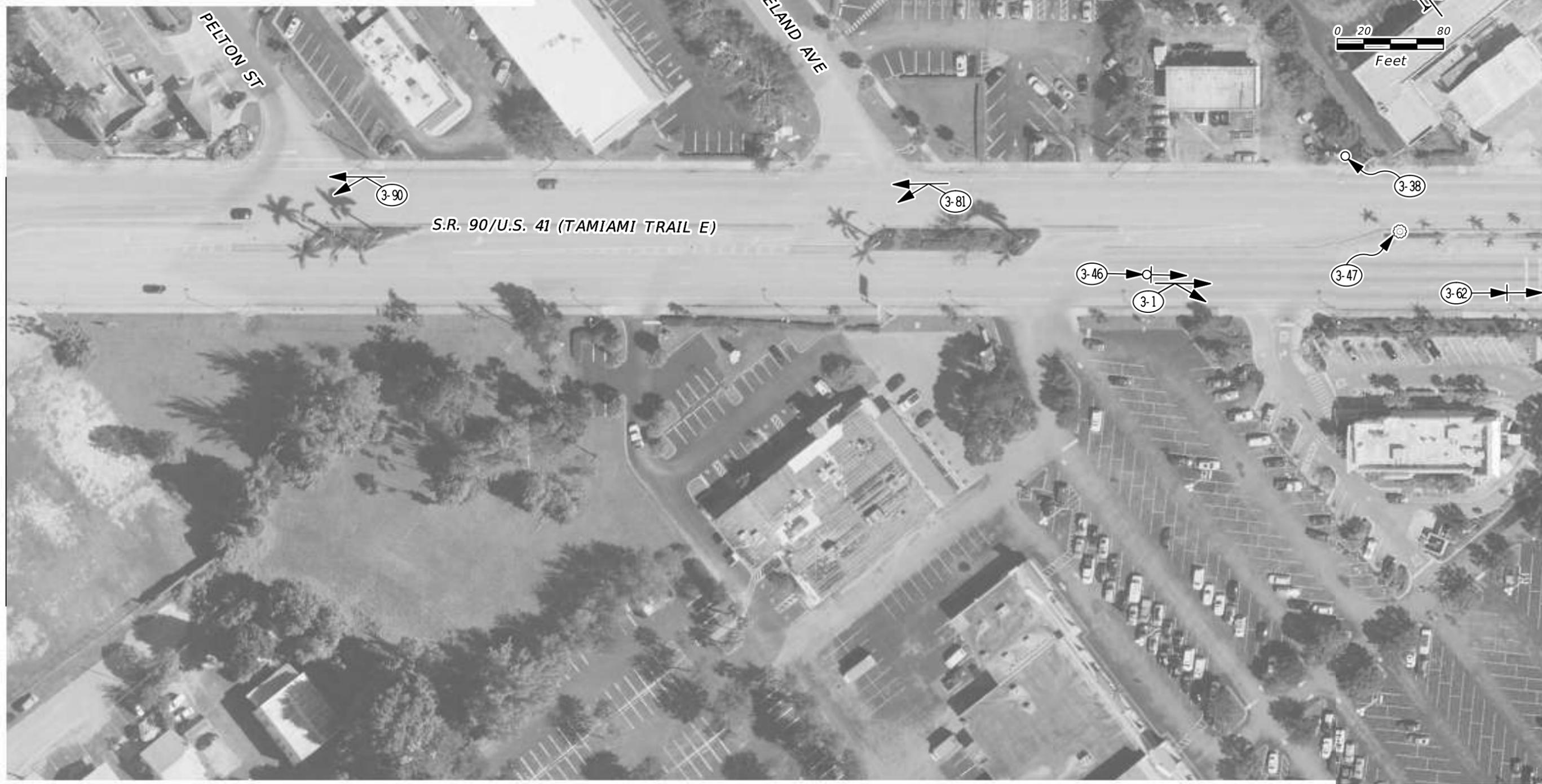
OVERTURNED VEHICLE	BACKING VEHICLE	OUT OF CONTROL	HEAD-ON COLLISION	ANGLE COLLISION	RIGHT TURN COLLISION	COLLISION W/ PED.	COLLISION W/ BIKE	LEFT TURN COLLISION	REAR-END COLLISION	SIDE SWIPE	PERSONAL INJURY	FATALITY	COLLISION NUMBER	YEAR OF COLLISION (I.E. 9 = 2011)

CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	84	34	1	119
NIGHTTIME	13	6	0	19
TOTAL	97	40	1	138

COLLISION DIAGRAM

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2013 TO 12/31/2013 PREPARED BY HNTB



MATCHLINE - SEE SHEET 2

MATCHLINE - SEE SHEET 4

SYMBOLS

-  OVERTURNED VEHICLE
-  BACKING VEHICLE
-  OUT OF CONTROL
-  HEAD-ON COLLISION
-  ANGLE COLLISION
-  RIGHT TURN COLLISION
-  COLLISION W/ PED.
-  COLLISION W/ BIKE
-  LEFT TURN COLLISION
-  REAR-END COLLISION
-  SIDE SWIPE
-  PERSONAL INJURY
-  FATALITY
-  COLLISION NUMBER
 (I.E. 9 = 2011)

CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	84	34	1	119
NIGHTTIME	13	6	0	19
TOTAL	97	40	1	138

COLLISION DIAGRAM

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2013 TO 12/31/2013 PREPARED BY HNTB



MATCHLINE - SEE SHEET 3

MATCHLINE - SEE SHEET 5

SYMBOLS

														
			HEAD-ON COLLISION			COLLISION W/ PED.			REAR-END COLLISION			COLLISION NUMBER		
			ANGLE COLLISION			COLLISION W/ BIKE			SIDE SWIPE			PERSONAL INJURY		
			RIGHT TURN COLLISION			LEFT TURN COLLISION			FATALITY			YEAR OF COLLISION (I.E. 9 = 2011)		

CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	84	34	1	119
NIGHTTIME	13	6	0	19
TOTAL	97	40	1	138

COLLISION DIAGRAM

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2013 TO 12/31/2013 PREPARED BY HNTB



MATCHLINE - SEE SHEET 4

MATCHLINE - SEE SHEET 6

SYMBOLS

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-
-

CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	84	34	1	119
NIGHTTIME	13	6	0	19
TOTAL	97	40	1	138

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COLLISION DIAGRAM

11.C.1

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2013 TO 12/31/2013 PREPARED BY HNTB



SYMBOLS

 OVERTURNED VEHICLE	 HEAD-ON COLLISION	 COLLISION W/ PED.	 REAR-END COLLISION	 COLLISION W/ BIKE	 SIDE SWIPE	 PERSONAL INJURY
 BACKING VEHICLE	 ANGLE COLLISION	 LEFT TURN COLLISION	 FATALITY	 COLLISION NUMBER (I.E. 9 = 2011)		
 OUT OF CONTROL	 RIGHT TURN COLLISION					

CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	84	34	1	119
NIGHTTIME	13	6	0	19
TOTAL	97	40	1	138

MATCHLINE - SEE SHEET 7

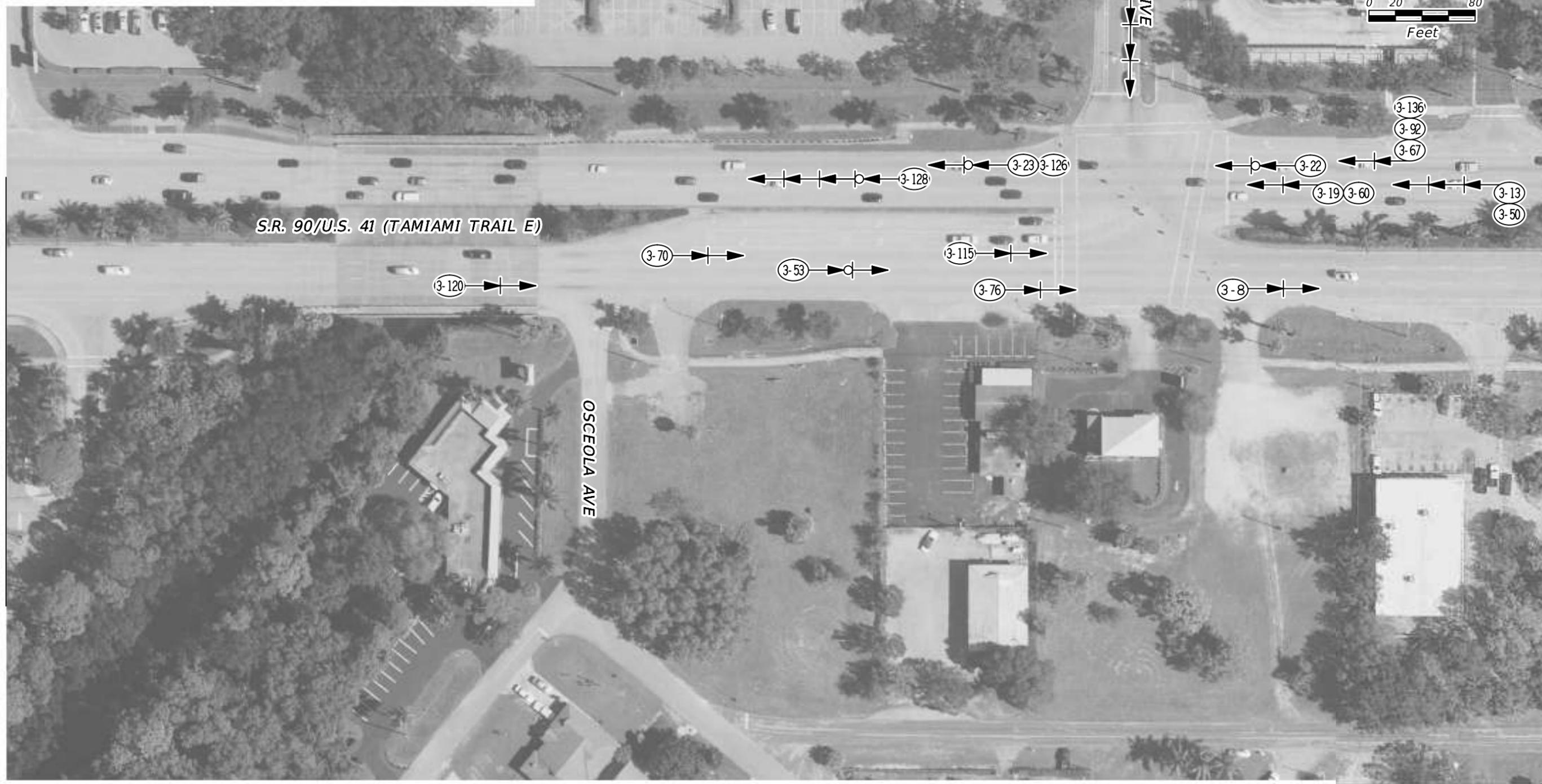
SHEET
6

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm

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COLLISION DIAGRAM

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2013 TO 12/31/2013 PREPARED BY HNTB



MATCHLINE - SEE SHEET 6

MATCHLINE - SEE SHEET 8

SYMBOLS

- | | | | | | | | | |
|--|--------------------|--|----------------------|--|---------------------|--|--------------------|--|
| | OVERTURNED VEHICLE | | HEAD-ON COLLISION | | COLLISION W/ PED. | | REAR-END COLLISION |
COLLISION NUMBER
YEAR OF COLLISION
(I.E. 9 = 2011) |
| | BACKING VEHICLE | | ANGLE COLLISION | | COLLISION W/ BIKE | | SIDE SWIPE | |
| | OUT OF CONTROL | | RIGHT TURN COLLISION | | LEFT TURN COLLISION | | PERSONAL INJURY | |
| | | | | | FATALITY | | | |

CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	84	34	1	119
NIGHTTIME	13	6	0	19
TOTAL	97	40	1	138

COLLISION DIAGRAM

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2013 TO 12/31/2013 PREPARED BY HNTB



MATCHLINE - SEE SHEET 7

MATCHLINE - SEE SHEET 9

SYMBOLS

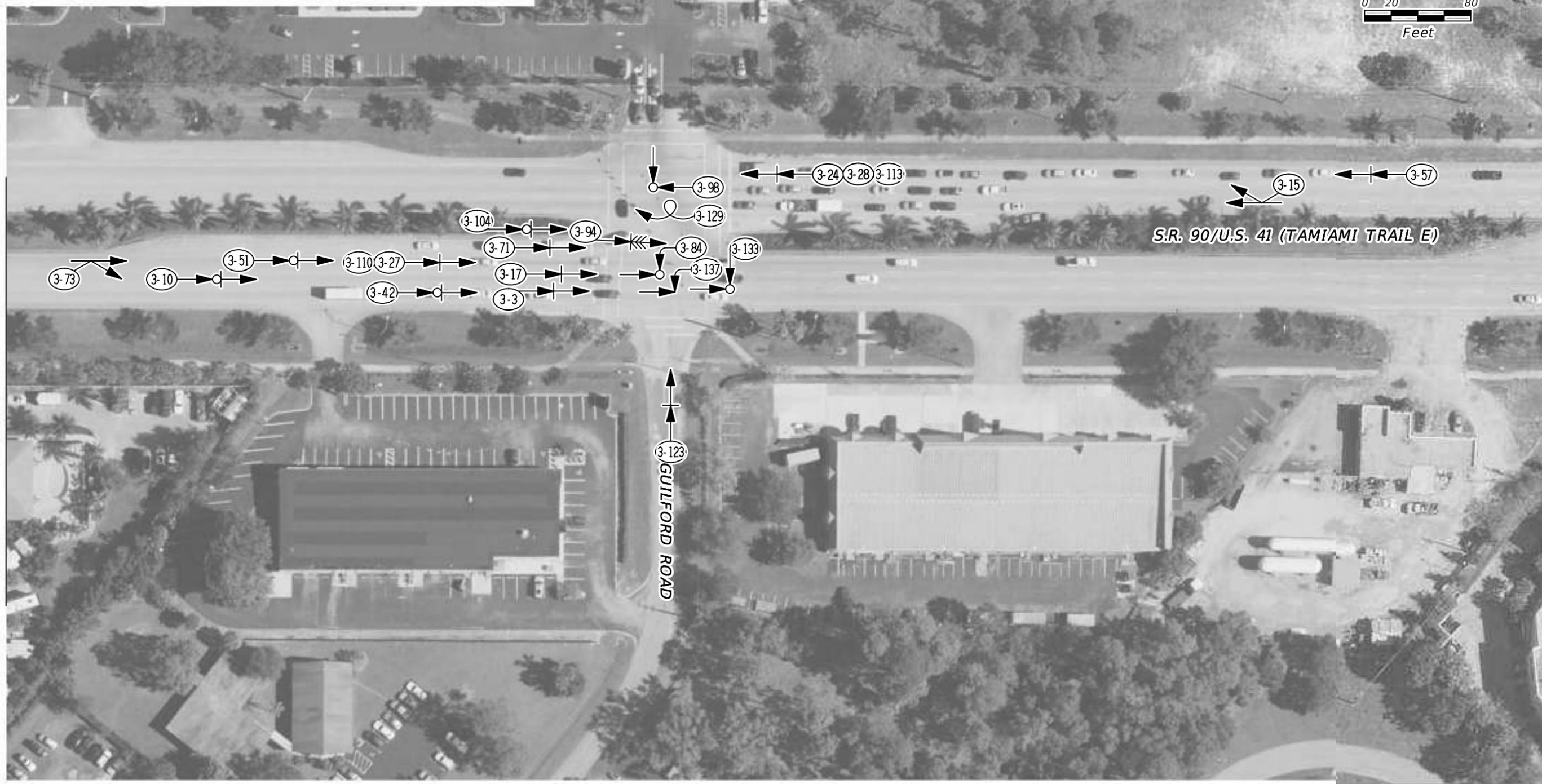
	OVERTURNED VEHICLE		HEAD-ON COLLISION		COLLISION W/ PED.		REAR-END COLLISION
	BACKING VEHICLE		ANGLE COLLISION		COLLISION W/ BIKE		SIDE SWIPE
	OUT OF CONTROL		RIGHT TURN COLLISION		LEFT TURN COLLISION		PERSONAL INJURY
					FATALITY		COLLISION NUMBER (I.E. 9 = 2011)

CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	84	34	1	119
NIGHTTIME	13	6	0	19
TOTAL	97	40	1	138

COLLISION DIAGRAM

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2013 TO 12/31/2013 PREPARED BY HNTB



MATCHLINE - SEE SHEET 8

SYMBOLS

- | | | | | |
|--------------------|----------------------|---------------------|-----------------------------|---|
| OVERTURNED VEHICLE | HEAD-ON COLLISION | COLLISION W/ PED. | REAR-END COLLISION | COLLISION NUMBER
YEAR OF COLLISION (I.E. 9 = 2011) |
| BACKING VEHICLE | ANGLE COLLISION | COLLISION W/ BIKE | SIDE SWIPE | |
| OUT OF CONTROL | RIGHT TURN COLLISION | LEFT TURN COLLISION | PERSONAL INJURY
FATALITY | |

CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	84	34	1	119
NIGHTTIME	13	6	0	19
TOTAL	97	40	1	138

COLLISION SUMMARY

Section: 03010000
 Location: From Commercial Dr to Guilford Rd
 Study Period: 1/1/2014 to 12/31/2014
 No. of Years: 1

State Route: 90
 M.P.: 13.158 - 15.024
 County: Collier

Engineer: HNTB

No.	Date	Day	Time	Type	Fatal	Injury	Prop. Damage	Day/Night	Wet/Dry	Contributing Cause	Comments
1	1/3/2014	Fri.	1:50	Rear End		x		Day	Dry	Careless Driving	
2	1/4/2014	Sat.	10:19	Sideswipe			x	Day	Wet	FTYRW	
3	1/5/2014	Sun.	12:18	Rear End			x	Day	Dry	Followed Too Closely	
4	1/7/2014	Tue.	13:22	Rear End			x	Day	Dry	Careless Driving	
5	1/7/2014	Tue.	15:05	Sideswipe		x		Day	Dry	Improper Lane Change	
6	1/14/2014	Tue.	17:15	Sideswipe			x	Day	Dry	Improper Lane Change	
7	1/16/2014	Thu.	12:18	Left Turn			x	Day	Dry	FTYRW	
8	1/21/2014	Tue.	3:55	Rear End			x	Day	Wet	Followed Too Closely	
9	1/24/2014	Fri.	13:32	Sideswipe			x	Day	Dry	FTYRW	
10	1/24/2014	Fri.	14:45	Rear End			x	Day	Dry	Followed Too Closely	
11	1/24/2014	Fri.	22:35	Left Turn			x	Night	Dry	No Improper Driving	
12	1/29/2014	Wed.	12:30	Rear End			x	Day	Wet	Followed Too Closely	
13	2/5/2014	Wed.	9:09	Collision w/ Bike		x		Day	Dry	FTYRW	
14	2/5/2014	Wed.	13:55	Left Turn			x	Day	Dry	FTYRW	
15	2/6/2014	Thu.	13:56	Rear End			x	Day	Dry	Careless Driving	
16	2/11/2014	Tue.	20:15	Rear End		x		Night	Dry	Other	
17	2/13/2014	Thu.	22:50	Rear End			x	Night	Dry	Followed Too Closely	
18	2/14/2014	Fri.	17:30	Rear End		x		Day	Dry	Careless Driving	
19	2/18/2014	Tue.	13:00	Sideswipe		x		Day	Dry	Improper Turn	
20	2/18/2014	Tue.	15:50	Rear End			x	Day	Dry	Careless Driving	
21	2/19/2014	Wed.	10:12	Rear End			x	Day	Dry	Careless Driving	
22	2/21/2014	Fri.	15:05	Rear End			x	Day	Dry	Followed Too Closely	
23	2/21/2014	Fri.	16:33	Angle			x	Day	Dry	No Improper Driving	
24	2/28/2014	Fri.	15:20	Rear End			x	Day	Dry	Careless Driving	
25	3/1/2014	Sat.	9:20	Rear End			x	Day	Dry	Careless Driving	
26	3/1/2014	Sat.	21:45	Rear End			x	Night	Dry	Careless Driving	
27	3/2/2014	Sun.	16:23	Sideswipe			x	Day	Dry	Improper Turn	
28	3/14/2014	Fri.	17:10	Left Turn		x		Day	Dry	FTYRW	
29	3/17/2014	Mon.	18:02	Rear End		x		Day	Dry	Other	Collision w/ Pole
30	3/17/2014	Mon.	13:49	Rear End			x	Day	Dry	Careless Driving	
31	3/17/2014	Mon.	9:00	Rear End			x	Day	Dry	Followed Too Closely	
32	3/23/2014	Sun.	20:13	Angle		x		Night	Dry	FTYRW	
33	3/26/2014	Wed.	12:10	Rear End			x	Day	Dry	Careless Driving	
34	3/26/2014	Wed.	11:13	Rear End			x	Day	Dry	Other	
35	3/28/2014	Fri.	13:48	Rear End		x		Day	Dry	Other	
36	3/31/2014	Mon.	21:44	Collision w/ Ped		x		Night	Dry	FTYRW	
37	3/31/2014	Mon.	13:35	Rear End			x	Day	Dry	Followed Too Closely	
38	4/2/2014	Wed.	20:25	Collision w/ Bike		x		Night	Dry	Other	
39	4/5/2014	Sat.	16:30	Rear End			x	Day	Dry	Followed Too Closely	
40	4/8/2014	Tue.	15:05	Rear End			x	Day	Wet	Careless Driving	
41	4/13/2014	Sun.	14:41	Rear End			x	Day	Dry	Careless Driving	
42	4/19/2014	Sat.	18:51	Sideswipe			x	Day	Dry	Improper Lane Change	
43	4/19/2014	Sat.	14:50	Rear End			x	Day	Dry	Followed Too Closely	
44	4/22/2014	Tue.	12:58	Rear End			x	Day	Dry	Other	
45	4/24/2014	Thu.	12:34	Angle			x	Day	Dry	FTYRW	
46	4/24/2014	Thu.	13:05	Rear End			x	Day	Dry	Followed Too Closely	

COLLISION SUMMARY

Section: 03010000
 Location: From Commercial Dr to Guilford Rd
 Study Period: 1/1/2014 to 12/31/2014
 No. of Years: 1

State Route: 90
 M.P.: 13.158 - 15.024
 County: Collier

Engineer: HNTB

No.	Date	Day	Time	Type	Fatal	Injury	Prop. Damage	Day/Night	Wet/Dry	Contributing Cause	Comments
47	4/24/2014	Thu.	17:10	Left Turn			x	Day	Dry	Careless Driving	
48	4/28/2014	Mon.	22:24	Rear End			x	Night	Dry	Other	
49	4/30/2014	Wed.	13:57	Rear End		x		Day	Dry	Careless Driving	
50	5/7/2014	Wed.	10:11	Rear End			x	Day	Dry	Careless Driving	
51	5/8/2014	Thu.	17:01	Other			x	Day	Dry	Other	
52	5/9/2014	Fri.	17:50	Rear End			x	Day	Dry	Exceeded Speed Limit	
53	5/13/2014	Tue.	17:05	Rear End			x	Day	Dry	Careless Driving	
54	5/18/2014	Sun.	12:46	Rear End			x	Day	Dry	Careless Driving	
55	5/24/2014	Sat.	12:46	Left Turn		x		Day	Dry	Disregarded Traffic Signal	
56	5/27/2014	Tue.	12:44	Rear End			x	Day	Dry	Other	
57	5/31/2014	Sat.	1:58	Rear End		x		Night	Dry	DUI	Collision w/ Object
58	6/6/2014	Fri.	16:15	Left Turn		x		Day	Dry	Disregarded Traffic Signal	
59	6/7/2014	Sat.	2:13	Collision w/ Ped		x		Night	Dry	Other	
60	6/10/2014	Tue.	8:21	Rear End			x	Day	Dry	Followed Too Closely	
61	6/13/2014	Fri.	13:34	Rear End			x	Day	Dry	Followed Too Closely	
62	6/16/2014	Mon.	14:43	Collision w/ Ped		x		Day	Dry	Other	
63	6/20/2014	Fri.	19:20	Rear End			x	Day	Dry	Improper Lane Change	
64	6/23/2014	Mon.	12:00	Sideswipe			x	Day	Dry	DUI	
65	6/25/2014	Wed.	13:16	Rear End		x		Day	Dry	Careless Driving	
66	6/29/2014	Sun.	11:28	Sideswipe			x	Day	Dry	FTYRW	
67	6/29/2014	Sun.	19:33	Rear End			x	Day	Dry	Followed Too Closely	
68	6/30/2014	Mon.	7:05	Rear End		x		Day	Dry	Followed Too Closely	
69	7/3/2014	Thu.	21:26	Rear End			x	Night	Dry	Followed Too Closely	
70	7/4/2014	Fri.	13:37	Right Turn			x	Day	Dry	FTYRW	
71	7/5/2014	Sat.	8:53	Off Road		x		Day	Dry	No Improper Driving	
72	7/12/2014	Sat.	15:30	Rear End			x	Day	Wet	Careless Driving	
73	7/12/2014	Sat.	18:50	Rear End			x	Day	Wet	No Improper Driving	
74	7/15/2014	Tue.	11:50	Rear End			x	Day	Wet	Careless Driving	
75	7/16/2014	Wed.	16:20	Rear End			x	Day	Wet	Careless Driving	
76	7/16/2014	Wed.	15:52	Rear End		x		Day	Dry	Other	
77	7/18/2014	Fri.	14:40	Rear End		x		Day	Dry	Careless Driving	
78	7/20/2014	Sun.	10:25	Rear End		x		Day	Dry	Followed Too Closely	
79	7/31/2014	Thu.	13:37	Rear End			x	Day	Dry	Followed Too Closely	
80	8/1/2014	Fri.	17:52	Sideswipe			x	Day	Dry	Careless Driving	
81	8/2/2014	Sat.	1:35	Collision w/ Object			x	Night	Wet	Failed To Maintain Vehicle	
82	8/6/2014	Wed.	12:01	Sideswipe			x	Day	Dry	Improper Lane Change	
83	8/12/2014	Tue.	8:35	Sideswipe			x	Day	Dry	FTYRW	
84	8/14/2014	Thu.	17:45	Left Turn		x		Day	Dry	FTYRW	
85	8/18/2014	Mon.	11:55	Rear End			x	Day	Dry	Careless Driving	
86	8/19/2014	Tue.	12:37	Collision w/ Bike		x		Day	Dry	Driving Wrong Side/Way	
87	8/19/2014	Tue.	16:05	Rear End			x	Day	Dry	Careless Driving	
88	8/21/2014	Thu.	9:55	Collision w/ Object		x		Day	Dry	Failed To Maintain Vehicle	
89	8/27/2014	Wed.	8:26	Sideswipe			x	Day	Dry	FTYRW	
90	8/30/2014	Sat.	12:13	Sideswipe			x	Day	Dry	FTYRW	
91	8/30/2014	Sat.	13:00	Sideswipe			x	Day	Dry	Other	
92	8/31/2014	Sun.	11:24	Sideswipe			x	Day	Dry	Other	

COLLISION SUMMARY

Section: 03010000
 Location: From Commercial Dr to Guilford Rd
 Study Period: 1/1/2014 to 12/31/2014
 No. of Years: 1

State Route: 90
 M.P.: 13.158 - 15.024
 County: Collier

Engineer: HNTB

No.	Date	Day	Time	Type	Fatal	Injury	Prop. Damage	Day/ Night	Wet/ Dry	Contributing Cause	Comments
93	9/2/2014	Tue.	14:01	Rear End			x	Day	Wet	Careless Driving	
94	9/2/2014	Tue.	14:08	Other		x		Day	Wet	Improper Backing	
95	9/5/2014	Fri.	15:48	Rear End			x	Day	Dry	Followed Too Closely	
96	9/6/2014	Sat.	17:38	Collision w/ Bike		x		Day	Dry	Driving Wrong Side/Way	
97	9/10/2014	Wed.	16:00	Collision w/ Bike		x		Day	Dry	Driving Wrong Side/Way	
98	9/17/2014	Wed.	6:49	Rear End		x		Night	Dry	Exceeded Speed Limit	
99	9/19/2014	Fri.	9:28	Rear End			x	Day	Wet	Followed Too Closely	
100	9/20/2014	Sat.	10:40	Angle		x		Day	Dry	FTYRW	
101	9/25/2014	Thu.	10:34	Rear End		x		Day	Dry	Careless Driving	
102	9/25/2014	Thu.	13:00	Rear End			x	Day	Dry	Followed Too Closely	
103	9/26/2014	Fri.	16:15	Rear End			x	Day	Wet	Followed Too Closely	
104	9/26/2014	Fri.	12:38	Sideswipe			x	Day	Wet	Improper Lane Change	
105	10/8/2014	Wed.	13:15	Rear End			x	Day	Dry	Careless Driving	
106	10/14/2014	Tue.	12:20	Rear End			x	Day	Dry	Followed Too Closely	
107	10/14/2014	Tue.	13:33	Rear End			x	Day	Dry	Followed Too Closely	
108	10/14/2014	Tue.	16:27	Rear End			x	Day	Wet	Exceeded Speed Limit	
109	10/17/2014	Fri.	17:23	Rear End			x	Day	Dry	Improper Turn	
110	10/19/2014	Sun.	19:46	Overtuned			x	Night	Dry	Failed To Maintain Vehicle	
111	10/24/2014	Fri.	17:32	Angle		x		Day	Dry	Improper Turn	
112	10/24/2014	Fri.	15:45	Rear End			x	Day	Dry	Followed Too Closely	
113	10/25/2014	Sat.	9:07	Sideswipe			x	Day	Dry	FTYRW	
114	10/27/2014	Mon.	17:57	Rear End			x	Day	Dry	No Improper Driving	
115	10/29/2014	Wed.	15:59	Rear End			x	Day	Dry	Followed Too Closely	
116	10/30/2014	Thu.	8:50	Collision w/ Ped		x		Day	Dry	Disregarded Traffic Signal	
117	11/5/2014	Wed.	17:12	Rear End		x		Night	Dry	Careless Driving	
118	11/5/2014	Wed.	18:12	Rear End			x	Night	Dry	Careless Driving	
119	11/7/2014	Fri.	15:55	Collision w/ Bike		x		Day	Dry	FTYRW	
120	11/9/2014	Sun.	17:25	Rear End		x		Night	Wet	Careless Driving	
121	11/12/2014	Wed.	9:15	Sideswipe			x	Day	Dry	Improper Lane Change	
122	11/12/2014	Wed.	10:20	Sideswipe			x	Day	Dry	Other	
123	11/17/2014	Mon.	13:40	Rear End		x		Day	Dry	Careless Driving	
124	11/18/2014	Tue.	15:30	Left Turn			x	Day	Wet	FTYRW	
125	11/20/2014	Thu.	11:30	Rear End			x	Day	Dry	Followed Too Closely	
126	11/21/2014	Fri.	11:52	Right Turn			x	Day	Dry	FTYRW	
127	11/21/2014	Fri.	11:19	Sideswipe			x	Day	Dry	Improper Lane Change	
128	11/23/2014	Sun.	14:12	Rear End		x		Day	Dry	Followed Too Closely	
129	11/24/2014	Mon.	13:21	Rear End		x		Day	Dry	Followed Too Closely	
130	11/25/2014	Tue.	9:00	Rear End		x		Day	Dry	Careless Driving	
131	11/27/2014	Thu.	5:52	Angle		x		Night	Dry	FTYRW	
132	11/28/2014	Fri.	15:05	Rear End			x	Day	Dry	Careless Driving	
133	12/1/2014	Mon.	9:32	Rear End			x	Day	Dry	Followed Too Closely	
134	12/2/2014	Tue.	11:47	Rear End			x	Day	Dry	Followed Too Closely	
135	12/3/2014	Wed.	17:05	Left Turn			x	Day	Dry	Disregarded Traffic Signal	
136	12/6/2014	Sat.	13:40	Sideswipe			x	Day	Dry	Improper Lane Change	
137	12/12/2014	Fri.	11:50	Rear End			x	Day	Dry	Careless Driving	
138	12/17/2014	Wed.	6:54	Rear End		x		Day	Dry	Followed Too Closely	

COLLISION SUMMARY

Section: 03010000
 Location: From Commercial Dr to Guilford Rd
 Study Period: 1/1/2014 to 12/31/2014
 No. of Years: 1

State Route: 90
 M.P.: 13.158 - 15.024
 County: Collier

Engineer: HNTB

No.	Date	Day	Time	Type	Fatal	Injury	Prop. Damage	Day/ Night	Wet/ Dry	Contributing Cause	Comments
139	12/17/2014	Wed.	13:45	Rear End			x	Day	Dry	Followed Too Closely	
140	12/22/2014	Mon.	13:46	Rear End			x	Day	Dry	Followed Too Closely	
141	12/28/2014	Sun.	12:20	Rear End		x		Day	Dry	Followed Too Closely	
142	12/31/2014	Wed.	23:14	Rear End			x	Night	Dry	Careless Driving	

Total No.	Fatal	Injury	Property Damage	Angle	Left Turn	Head On	Ran Into Ditch	Rear End	Side Swipe	Collision w/ Sign	Overtaken	Collision w/ Object	Right Turn	Run Off Road	Other
142	0	45	97	6	10	0	0	86	22	0	1	2	2	1	2
%	0	32	68	4	7	0	0	61	15	0	1	1	1	1	1
One Vehicle	Ped/ Bike	Day	Night	Dry	Wet	Careless Driving	FTYRW	Improper Turn	DUI	Improper Lane Change	Disregarded Traffic Signal	Failed to Maintain Vehicle	Improper Load	No Improper Driving	Other
3	10	123	19	125	17	37	21	4	2	9	4	3	0	5	15
2	7	87	13	88	12	26	15	3	1	6	3	2	0	4	11
Driving Wrong Side / Way	Followed Too Closely	Improper Backing	Exceeded Speed Limit												
3	35	1	3												
2	25	1	2												

COLLISION DIAGRAM

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2014 TO 12/31/2014 PREPARED BY HNTB



MATCHLINE - SEE SHEET 2

SYMBOLS

OVERTURNED VEHICLE	BACKING VEHICLE	OUT OF CONTROL	HEAD-ON COLLISION	ANGLE COLLISION	RIGHT TURN COLLISION	COLLISION W/ PED.	COLLISION W/ BIKE	LEFT TURN COLLISION	REAR-END COLLISION	SIDE SWIPE	PERSONAL INJURY	FATALITY	COLLISION NUMBER (I.E. 9 = 2011)

CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	88	35	0	123
NIGHTTIME	9	10	0	19
TOTAL	97	45	0	142

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COLLISION DIAGRAM

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2014 TO 12/31/2014 PREPARED BY HNTB



MATCHLINE - SEE SHEET 1

MATCHLINE - SEE SHEET 3

SYMBOLS

													 COLLISION NUMBER (I.E. 9 = 2011)
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CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	88	35	0	123
NIGHTTIME	9	10	0	19
TOTAL	97	45	0	142

COLLISION DIAGRAM

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2014 TO 12/31/2014 PREPARED BY HNTB



MATCHLINE - SEE SHEET 2

MATCHLINE - SEE SHEET 4

SYMBOLS

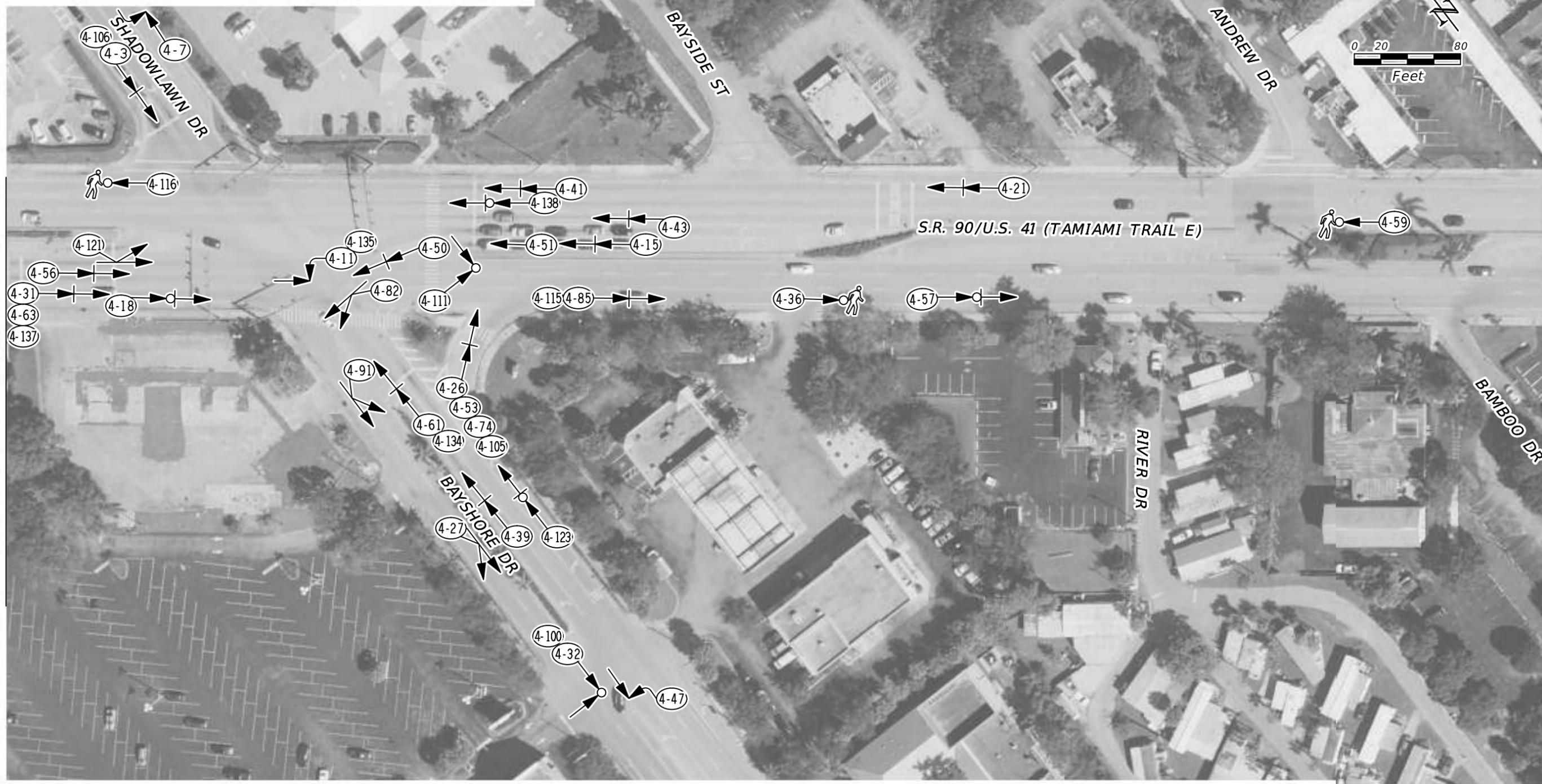
- | | | | | | | | | |
|--|--------------------|--|----------------------|--|---------------------|--|--------------------|--|
| | OVERTURNED VEHICLE | | HEAD-ON COLLISION | | COLLISION W/ PED. | | REAR-END COLLISION |
COLLISION NUMBER
YEAR OF COLLISION
(I.E. 9 = 2011) |
| | BACKING VEHICLE | | ANGLE COLLISION | | COLLISION W/ BIKE | | SIDE SWIPE | |
| | OUT OF CONTROL | | RIGHT TURN COLLISION | | LEFT TURN COLLISION | | PERSONAL INJURY | |
| | | | | | FATALITY | | | |

CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	88	35	0	123
NIGHTTIME	9	10	0	19
TOTAL	97	45	0	142

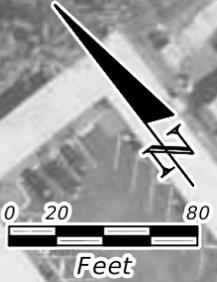
COLLISION DIAGRAM

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2014 TO 12/31/2014 PREPARED BY HNTB



MATCHLINE - SEE SHEET 3

MATCHLINE - SEE SHEET 5



SYMBOLS

- | | | | | | | | |
|--|--------------------|--|----------------------|--|---------------------|--|-------------------------------------|
| | OVERTURNED VEHICLE | | HEAD-ON COLLISION | | COLLISION W/ PED. | | REAR-END COLLISION |
| | BACKING VEHICLE | | ANGLE COLLISION | | COLLISION W/ BIKE | | SIDE SWIPE |
| | OUT OF CONTROL | | RIGHT TURN COLLISION | | LEFT TURN COLLISION | | PERSONAL INJURY |
| | | | | | FATALITY | | COLLISION NUMBER
(I.E. 9 = 2011) |

CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	88	35	0	123
NIGHTTIME	9	10	0	19
TOTAL	97	45	0	142

COLLISION DIAGRAM

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2014 TO 12/31/2014 PREPARED BY HNTB



MATCHLINE - SEE SHEET 4

MATCHLINE - SEE SHEET 6

SYMBOLS

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CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	88	35	0	123
NIGHTTIME	9	10	0	19
TOTAL	97	45	0	142

COLLISION DIAGRAM

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2014 TO 12/31/2014 PREPARED BY HNTB



MATCHLINE - SEE SHEET 5

MATCHLINE - SEE SHEET 7

SYMBOLS

-  OVERTURNED VEHICLE
-  BACKING VEHICLE
-  OUT OF CONTROL
-  HEAD-ON COLLISION
-  ANGLE COLLISION
-  RIGHT TURN COLLISION
-  COLLISION W/ PED.
-  COLLISION W/ BIKE
-  LEFT TURN COLLISION
-  REAR-END COLLISION
-  SIDE SWIPE
-  PERSONAL INJURY
-  FATALITY
-  COLLISION NUMBER
 (I.E. 9 = 2011)

CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	88	35	0	123
NIGHTTIME	9	10	0	19
TOTAL	97	45	0	142

COLLISION DIAGRAM

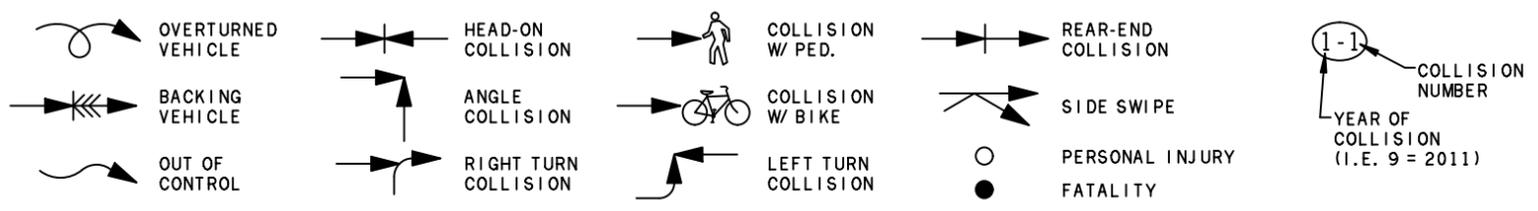
LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2014 TO 12/31/2014 PREPARED BY HNTB



MATCHLINE - SEE SHEET 6

MATCHLINE - SEE SHEET 8

SYMBOLS



CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	88	35	0	123
NIGHTTIME	9	10	0	19
TOTAL	97	45	0	142

COLLISION DIAGRAM

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2014 TO 12/31/2014 PREPARED BY HNTB



MATCHLINE - SEE SHEET 7

MATCHLINE - SEE SHEET 9

SYMBOLS

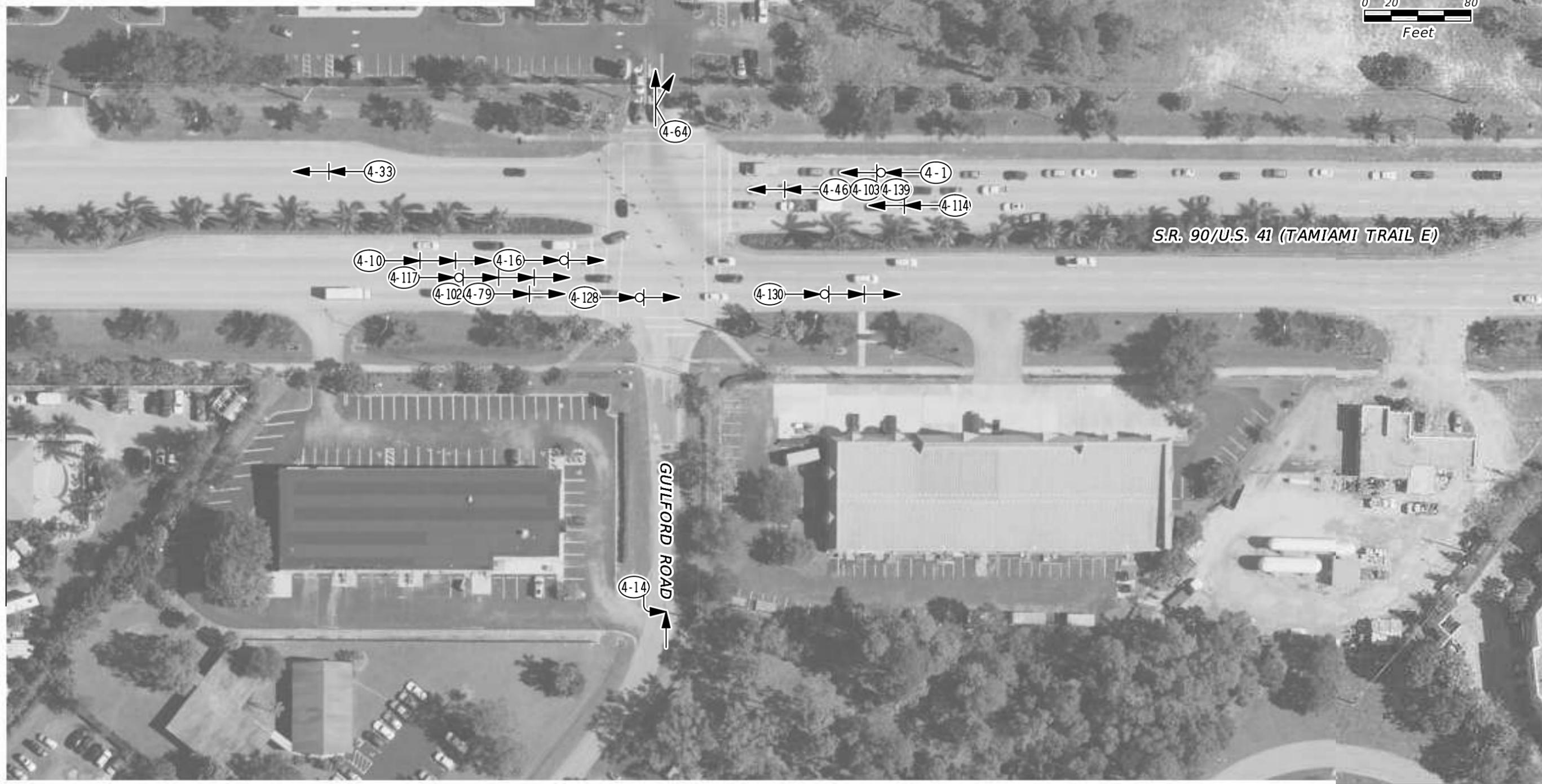
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CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	88	35	0	123
NIGHTTIME	9	10	0	19
TOTAL	97	45	0	142

COLLISION DIAGRAM

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2014 TO 12/31/2014 PREPARED BY HNTB



MATCHLINE - SEE SHEET 8

S.R. 90/U.S. 41 (TAMIAMI TRAIL E)

GUILFORD ROAD

SYMBOLS

														
			HEAD-ON COLLISION			COLLISION W/ PED.			REAR-END COLLISION			COLLISION NUMBER		
			ANGLE COLLISION			COLLISION W/ BIKE			SIDE SWIPE			PERSONAL INJURY		
			RIGHT TURN COLLISION			LEFT TURN COLLISION			FATALITY			YEAR OF COLLISION (I.E. 9 = 2011)		

CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	88	35	0	123
NIGHTTIME	9	10	0	19
TOTAL	97	45	0	142

COLLISION SUMMARY

Section: 03010000
 Location: From Commercial Dr to Guilford Rd
 Study Period: 1/1/2015 to 12/31/2015
 No. of Years: 1

State Route: 90
 M.P.: 13.158 - 15.024
 County: Collier

Engineer: HNTB

No.	Date	Day	Time	Type	Fatal	Injury	Prop. Damage	Day/Night	Wet/Dry	Contributing Cause	Comments
1	1/2/2015	Fri.	12:20	Rear End			x	Day	Dry	Followed Too Closely	
2	1/2/2015	Fri.	16:13	Left Turn			x	Day	Dry	FTYRW	
3	1/5/2015	Mon.	15:05	Rear End		x		Day	Dry	Careless Driving	
4	1/6/2015	Tue.	10:09	Rear End		x		Day	Dry	Careless Driving	
5	1/7/2015	Wed.	15:58	Rear End		x		Day	Dry	Careless Driving	
6	1/8/2015	Thu.	18:16	Left Turn		x		Night	Dry	Improper Turn	
7	1/14/2015	Wed.	19:33	Other			x	Night	Dry	Improper Backing	
8	1/18/2015	Sun.	12:17	Rear End		x		Day	Dry	Followed Too Closely	
9	1/19/2015	Mon.	10:15	Rear End			x	Day	Dry	Careless Driving	
10	1/21/2015	Wed.	9:37	Collision w/ Bike		x		Day	Dry	FTYRW	
11	1/21/2015	Wed.	18:45	Sideswipe			x	Night	Dry	Improper Lane Change	
12	1/27/2015	Tue.	10:52	Angle			x	Day	Dry	FTYRW	
13	1/28/2015	Wed.	12:10	Rear End			x	Day	Dry	Careless Driving	
14	1/28/2015	Wed.	20:45	Rear End			x	Night	Dry	Followed Too Closely	
15	1/30/2015	Fri.	21:27	Sideswipe			x	Night	Dry	Other	
16	2/1/2015	Sun.	14:55	Rear End		x		Day	Dry	Followed Too Closely	
17	2/2/2015	Mon.	10:20	Off Road			x	Day	Dry	Careless Driving	
18	2/3/2015	Tue.	14:05	Rear End			x	Day	Dry	Careless Driving	
19	2/3/2015	Tue.	20:30	Rear End			x	Night	Dry	Followed Too Closely	
20	2/4/2015	Wed.	19:20	Left Turn			x	Night	Dry	FTYRW	
21	2/5/2015	Thu.	15:32	Rear End			x	Day	Wet	Careless Driving	
22	2/6/2015	Fri.	12:07	Rear End			x	Day	Dry	FTYRW	
23	2/6/2015	Fri.	15:02	Rear End			x	Day	Dry	Followed Too Closely	
24	2/9/2015	Mon.	15:42	Rear End			x	Day	Wet	Careless Driving	
25	2/10/2015	Tue.	11:38	Collision w/ Bike		x		Day	Dry	FTYRW	
26	2/10/2015	Tue.	13:54	Rear End			x	Day	Dry	Careless Driving	
27	2/10/2015	Tue.	8:00	Collision w/ Bike			x	Day	Dry	No Improper Driving	
28	2/15/2015	Sun.	11:56	Angle		x		Day	Dry	Disregarded Traffic Signal	
29	2/18/2015	Wed.	9:52	Rear End			x	Day	Dry	Careless Driving	
30	2/20/2015	Fri.	14:14	Rear End			x	Day	Dry	Careless Driving	
31	2/23/2015	Mon.	16:37	Rear End		x		Day	Dry	Careless Driving	
32	3/1/2015	Sun.	16:10	Collision w/ Bike		x		Day	Dry	DUI	
33	3/1/2015	Sun.	17:54	Rear End			x	Day	Wet	Followed Too Closely	
34	3/2/2015	Mon.	11:47	Rear End		x		Day	Dry	Careless Driving	
35	3/2/2015	Mon.	11:50	Rear End		x		Day	Dry	Careless Driving	
36	3/3/2015	Tue.	10:00	Angle			x	Day	Dry	Careless Driving	
37	3/4/2015	Wed.	15:25	Rear End			x	Day	Dry	Followed Too Closely	
38	3/6/2015	Fri.	10:53	Sideswipe			x	Day	Dry	Improper Lane Change	
39	3/6/2015	Fri.	13:28	Other			x	Day	Dry	Improper Backing	
40	3/7/2015	Sat.	17:30	Left Turn		x		Day	Dry	Disregarded Traffic Signal	
41	3/11/2015	Wed.	15:52	Angle			x	Day	Wet	Careless Driving	
42	3/12/2015	Thu.	4:55	Collision w/ Ped		x		Night	Dry	FTYRW	
43	3/13/2015	Fri.	23:00	Left Turn			x	Night	Dry	No Improper Driving	
44	3/16/2015	Mon.	12:45	Sideswipe			x	Day	Dry	FTYRW	
45	3/17/2015	Tue.	15:01	Rear End			x	Day	Dry	Followed Too Closely	
46	3/17/2015	Tue.	17:15	Sideswipe		x		Day	Dry	FTYRW	

COLLISION SUMMARY

Section: 03010000
 Location: From Commercial Dr to Guilford Rd
 Study Period: 1/1/2015 to 12/31/2015
 No. of Years: 1

State Route: 90
 M.P.: 13.158 - 15.024
 County: Collier

Engineer: HNTB

No.	Date	Day	Time	Type	Fatal	Injury	Prop. Damage	Day/ Night	Wet/ Dry	Contributing Cause	Comments
47	3/18/2015	Wed.	6:48	Rear End			x	Night	Dry	Other	
48	3/19/2015	Thu.	12:07	Rear End		x		Day	Dry	Careless Driving	
49	3/21/2015	Sat.	11:45	Rear End			x	Day	Dry	Followed Too Closely	
50	3/22/2015	Sun.	2:52	Collision w/ Bike		x		Night	Dry	FTYRW	
51	3/22/2015	Sun.	13:08	Rear End			x	Day	Dry	Careless Driving	
52	3/28/2015	Sat.	17:50	Angle		x		Day	Dry	FTYRW	
53	3/30/2015	Mon.	14:33	Rear End			x	Day	Dry	Followed Too Closely	
54	4/1/2015	Wed.	11:26	Rear End		x		Day	Dry	Other	
55	4/3/2015	Fri.	17:00	Rear End			x	Day	Dry	No Improper Driving	
56	4/8/2015	Wed.	10:04	Rear End			x	Day	Dry	Followed Too Closely	
57	4/13/2015	Mon.	13:13	Rear End			x	Day	Dry	Followed Too Closely	
58	4/21/2015	Tue.	19:15	Collision w/ Bike		x		Day	Dry	Other	
59	4/23/2015	Thu.	17:05	Rear End		x		Day	Dry	Followed Too Closely	
60	4/26/2015	Sun.	11:13	Rear End			x	Day	Dry	Careless Driving	
61	4/26/2015	Sun.	13:26	Sideswipe			x	Day	Dry	FTYRW	
62	4/28/2015	Tue.	16:50	Sideswipe			x	Day	Dry	Improper Passing	
63	4/29/2015	Wed.	12:10	Right Turn			x	Day	Dry	No Improper Driving	
64	4/29/2015	Wed.	14:53	Sideswipe			x	Day	Wet	Other	
65	5/3/2015	Sun.	13:30	Rear End			x	Day	Dry	DUI	
66	5/5/2015	Tue.	19:35	Angle			x	Day	Dry	FTYRW	
67	5/6/2015	Wed.	16:58	Rear End		x		Day	Dry	No Improper Driving	
68	5/8/2015	Fri.	17:57	Angle		x		Day	Dry	Disregarded Traffic Signal	
69	5/9/2015	Sat.	18:29	Sideswipe			x	Day	Dry	No Improper Driving	
70	5/11/2015	Mon.	8:50	Rear End			x	Day	Dry	Careless Driving	
71	5/11/2015	Mon.	13:51	Angle			x	Day	Dry	Careless Driving	
72	5/15/2015	Fri.	15:21	Sideswipe			x	Day	Dry	Improper Lane Change	
73	5/15/2015	Fri.	20:42	Head On			x	Night	Wet	Careless Driving	
74	5/15/2015	Fri.	14:45	Other			x	Day	Dry	Improper Backing	
75	5/15/2015	Fri.	17:30	Rear End		x		Day	Dry	Disregarded Traffic Signal	
76	5/17/2015	Sun.	15:30	Rear End			x	Day	Wet	Followed Too Closely	
77	5/20/2015	Wed.	8:30	Sideswipe			x	Day	Dry	Careless Driving	
78	5/23/2015	Sat.	10:15	Rear End		x		Day	Dry	Careless Driving	
79	5/23/2015	Sat.	22:58	Rear End		x		Night	Dry	No Improper Driving	
80	6/2/2015	Tue.	18:50	Collision w/ Ped		x		Day	Wet	Disregarded Traffic Signal	
81	6/5/2015	Fri.	15:30	Rear End			x	Night	Wet	Followed Too Closely	
82	6/9/2015	Tue.	21:17	Left Turn		x		Night	Dry	FTYRW	
83	6/12/2015	Fri.	14:45	Rear End			x	Day	Wet	Followed Too Closely	
84	6/23/2015	Tue.	14:55	Rear End			x	Day	Dry	Careless Driving	
85	6/23/2015	Tue.	17:20	Rear End			x	Day	Dry	Careless Driving	
86	6/30/2015	Tue.	9:55	Angle			x	Day	Dry	FTYRW	
87	7/1/2015	Wed.	16:45	Rear End			x	Day	Dry	Other	
88	7/8/2015	Wed.	12:11	Rear End			x	Day	Dry	No Improper Driving	
89	7/11/2015	Sat.	15:25	Sideswipe			x	Day	Dry	No Improper Driving	
90	7/13/2015	Mon.	15:15	Collision w/ Sign			x	Day	Dry	Vehicle Modified	
91	7/15/2015	Wed.	14:45	Sideswipe			x	Day	Dry	Improper Passing	
92	7/18/2015	Sat.	19:14	Rear End			x	Day	Dry	Careless Driving	

COLLISION SUMMARY

Section: 03010000
 Location: From Commercial Dr to Guilford Rd
 Study Period: 1/1/2015 to 12/31/2015
 No. of Years: 1

State Route: 90
 M.P.: 13.158 - 15.024
 County: Collier

Engineer: HNTB

No.	Date	Day	Time	Type	Fatal	Injury	Prop. Damage	Day/Night	Wet/Dry	Contributing Cause	Comments
93	7/19/2015	Sun.	11:00	Rear End			x	Day	Dry	Followed Too Closely	
94	7/21/2015	Tue.	19:34	Angle			x	Night	Dry	Other	
95	7/22/2015	Wed.	11:26	Collision w/ Bike		x		Day	Dry	Driving Wrong Side/Way	
96	7/27/2015	Mon.	14:05	Rear End			x	Day	Wet	Followed Too Closely	
97	7/29/2015	Wed.	17:05	Collision w/ Bike		x		Day	Dry	FTYRW	
98	7/30/2015	Thu.	21:01	Rear End		x		Night	Dry	Followed Too Closely	
99	7/31/2015	Fri.	17:27	Other			x	Day	Dry	Improper Backing	
100	8/2/2015	Sun.	10:27	Other			x	Day	Dry	Improper Backing	
101	8/7/2015	Fri.	19:17	Rear End			x	Day	Dry	Followed Too Closely	
102	8/17/2015	Mon.	12:24	Rear End			x	Day	Dry	Careless Driving	
103	8/17/2015	Mon.	14:58	Rear End			x	Day	Wet	Careless Driving	
104	8/22/2015	Sat.	16:45	Rear End			x	Day	Dry	Followed Too Closely	
105	8/22/2015	Sat.	19:37	Rear End		x		Night	Dry	Other	
106	8/24/2015	Mon.	11:45	Rear End			x	Day	Dry	Other	
107	8/24/2015	Mon.	21:15	Sideswipe			x	Night	Dry	Improper Turn	
108	8/26/2015	Wed.	13:18	Rear End			x	Day	Dry	Followed Too Closely	
109	9/4/2015	Fri.	21:00	Left Turn			x	Night	Dry	Careless Driving	
110	9/4/2015	Fri.	23:37	Left Turn			x	Night	Dry	FTYRW	
111	9/5/2015	Sat.	16:59	Sideswipe			x	Day	Dry	FTYRW	
112	9/7/2015	Mon.	11:51	Rear End			x	Day	Dry	Careless Driving	
113	9/10/2015	Thu.	15:12	Left Turn			x	Day	Dry	Careless Driving	
114	9/12/2015	Sat.	9:32	Rear End			x	Day	Wet	Followed Too Closely	
115	9/17/2015	Thu.	15:35	Rear End			x	Day	Dry	Followed Too Closely	
116	9/24/2015	Thu.	9:18	Rear End		x		Day	Dry	Followed Too Closely	
117	9/26/2015	Sat.	15:35	Rear End			x	Day	Dry	Followed Too Closely	
118	9/28/2015	Mon.	15:20	Rear End		x		Day	Dry	Careless Driving	
119	9/28/2015	Mon.	10:48	Rear End			x	Day	Dry	Followed Too Closely	
120	9/29/2015	Tue.	16:15	Rear End		x		Day	Dry	Careless Driving	
121	10/2/2015	Fri.	18:00	Rear End	x			Day	Dry	Other	
122	10/3/2015	Sat.	20:53	Left Turn	x			Night	Dry	FTYRW	
123	10/3/2015	Sat.	15:37	Rear End			x	Day	Dry	Disregarded Traffic Signal	
124	10/4/2015	Sun.	10:36	Rear End			x	Day	Dry	Careless Driving	
125	10/10/2015	Sat.	9:44	Sideswipe			x	Day	Dry	Improper Lane Change	
126	10/10/2015	Sat.	18:33	Rear End			x	Day	Dry	Careless Driving	
127	10/14/2015	Wed.	6:45	Sideswipe			x	Night	Dry	FTYRW	
128	10/14/2015	Wed.	14:38	Left Turn		x		Day	Dry	Careless Driving	
129	10/15/2015	Thu.	14:15	Rear End			x	Day	Dry	Followed Too Closely	
130	10/23/2015	Fri.	15:36	Sideswipe			x	Day	Dry	Improper Lane Change	
131	10/28/2015	Wed.	14:00	Rear End			x	Day	Wet	Followed Too Closely	
132	11/2/2015	Mon.	13:36	Sideswipe			x	Day	Dry	FTYRW	
133	11/3/2015	Tue.	16:15	Rear End		x		Day	Dry	Followed Too Closely	
134	11/3/2015	Tue.	15:00	Rear End			x	Day	Dry	Followed Too Closely	
135	11/4/2015	Wed.	14:02	Other			x	Day	Dry	Improper Backing	
136	11/5/2015	Thu.	21:30	Rear End			x	Night	Dry	Followed Too Closely	
137	11/6/2015	Fri.	12:49	Rear End			x	Day	Dry	Followed Too Closely	
138	11/12/2015	Thu.	11:56	Sideswipe			x	Day	Dry	Other	

COLLISION SUMMARY

Section: 03010000
 Location: From Commercial Dr to Guilford Rd
 Study Period: 1/1/2015 to 12/31/2015
 No. of Years: 1

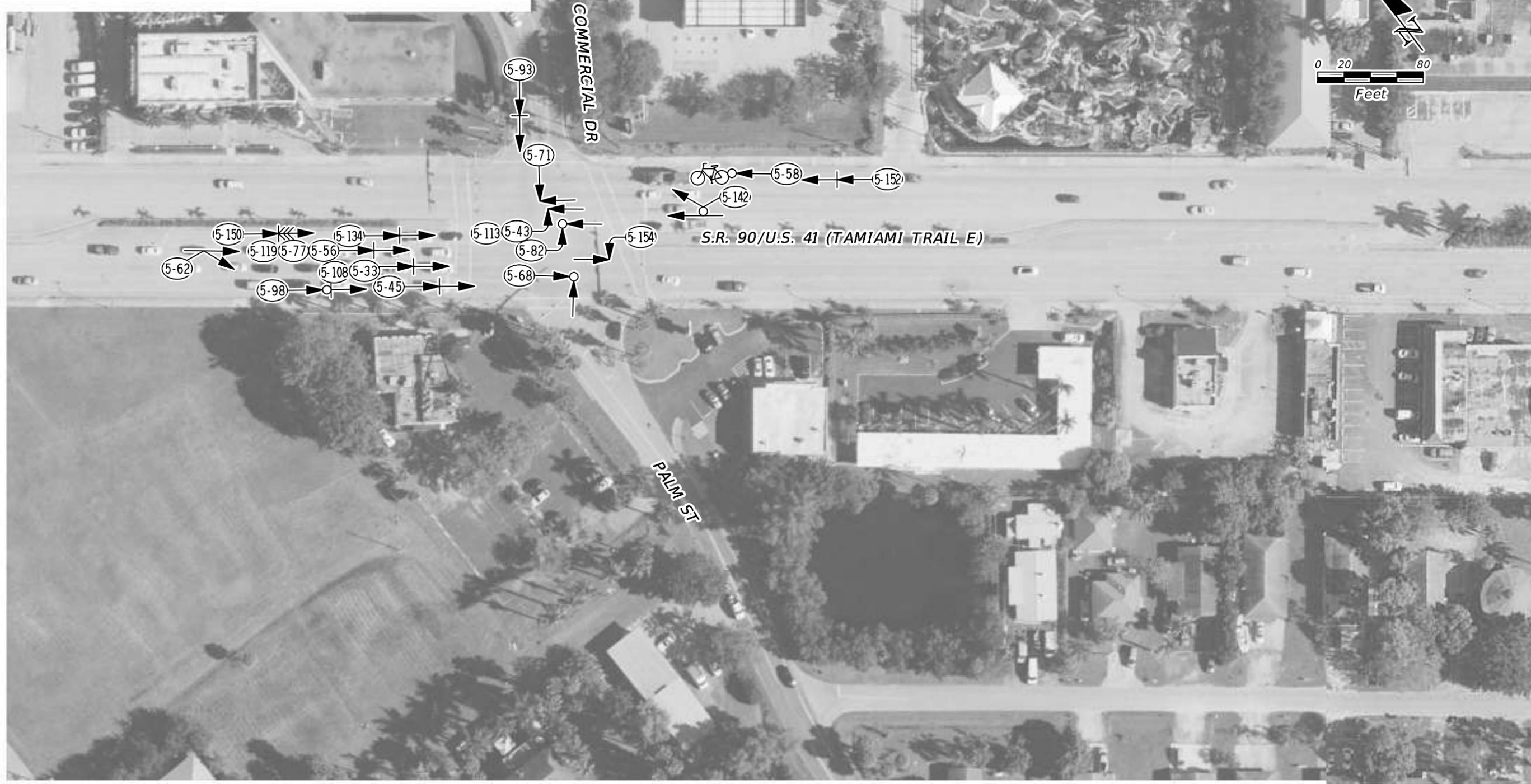
State Route: 90
 M.P.: 13.158 - 15.024
 County: Collier
 Engineer: HNTB

No.	Date	Day	Time	Type	Fatal	Injury	Prop. Damage	Day/Night	Wet/Dry	Contributing Cause	Comments
139	11/13/2015	Fri.	16:00	Rear End			x	Day	Dry	Careless Driving	
140	11/16/2015	Mon.	16:15	Left Turn		x		Day	Dry	Other	
141	11/19/2015	Thu.	10:47	Rear End		x		Day	Dry	Followed Too Closely	
142	11/20/2015	Fri.	13:09	Sideswipe		x		Day	Dry	Careless Driving	
143	11/21/2015	Sat.	12:30	Left Turn			x	Day	Dry	Other	
144	11/22/2015	Sun.	23:24	Rear End		x		Night	Dry	Careless Driving	
145	11/24/2015	Tue.	12:26	Rear End		x		Day	Dry	Careless Driving	
146	11/27/2015	Fri.	14:21	Rear End			x	Day	Dry	Followed Too Closely	
147	11/28/2015	Sat.	16:04	Sideswipe			x	Day	Dry	FTYRW	
148	11/28/2015	Sat.	20:50	Rear End			x	Night	Dry	Followed Too Closely	
149	11/29/2015	Sun.	19:35	Rear End			x	Night	Dry	DUI	
150	11/30/2015	Mon.	12:20	Other			x	Day	Dry	Improper Backing	
151	12/1/2015	Tue.	16:04	Rear End		x		Day	Dry	Followed Too Closely	
152	12/2/2015	Wed.	8:07	Rear End			x	Day	Dry	Careless Driving	
153	12/9/2015	Wed.	18:45	Sideswipe			x	Night	Dry	Disregarded Traffic Signal	
154	12/11/2015	Fri.	18:44	Left Turn			x	Night	Dry	Careless Driving	
155	12/12/2015	Sat.	12:09	Sideswipe			x	Day	Dry	Careless Driving	
156	12/15/2015	Tue.	15:12	Angle			x	Day	Dry	Careless Driving	
157	12/15/2015	Tue.	11:53	Rear End			x	Day	Dry	Followed Too Closely	
158	12/17/2015	Thu.	13:00	Rear End			x	Day	Dry	Careless Driving	
159	12/20/2015	Sun.	7:30	Other			x	Day	Dry	Improper Backing	
160	12/26/2015	Sat.	13:10	Rear End			x	Day	Dry	Careless Driving	
161	12/28/2015	Mon.	12:26	Rear End			x	Day	Dry	Careless Driving	
162	12/29/2015	Tue.	14:03	Rear End			x	Day	Dry	Followed Too Closely	
163	12/29/2015	Tue.	16:47	Rear End			x	Day	Dry	Followed Too Closely	

Total No.	Fatal	Injury	Property Damage	Angle	Left Turn	Head On	Ran Into Ditch	Rear End	Side Swipe	Collision w/ Sign	Overtuned	Collision w/ Pole	Hit Animal	Run Off Road	Other
163	2	44	117	11	14	1	0	92	24	1	0	0	0	1	8
%	1	27	72	7	9	1	0	56	15	1	0	0	0	1	5
One Vehicle	Ped/Bike	Day	Night	Dry	Wet	Careless Driving	FTYRW	Improper Turn	DUI	Improper Lane Change	Disregarded Traffic Signal	Followed Too Closely	Improper Backing	No Improper Driving	Other
1	10	134	29	149	14	49	22	2	3	5	7	41	8	9	13
1	6	82	18	91	9	30	13	1	2	3	4	25	5	6	8
Driving Wrong Side / Way	Vehicle Modified	Improper Passing													
1	1	2													
1	1	1													

COLLISION DIAGRAM

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2015 TO 12/31/2015 PREPARED BY HNTB



MATCHLINE - SEE SHEET 2

SYMBOLS

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CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	97	36	1	134
NIGHTTIME	20	8	1	29
TOTAL	117	44	2	163

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COLLISION DIAGRAM

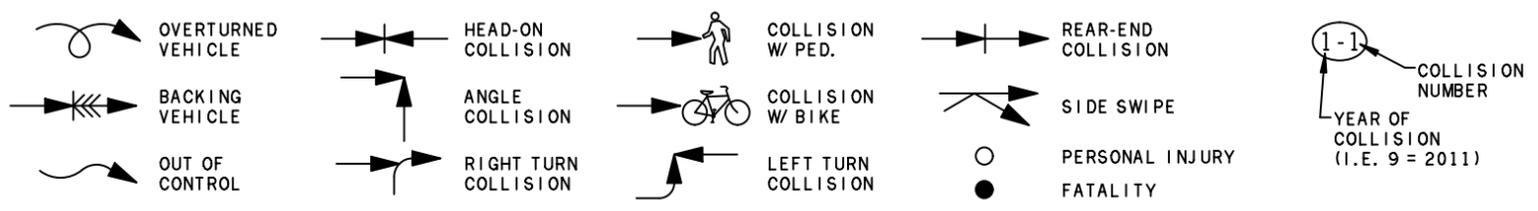
LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2015 TO 12/31/2015 PREPARED BY HNTB



MATCHLINE - SEE SHEET 1

MATCHLINE - SEE SHEET 3

SYMBOLS



CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	97	36	1	134
NIGHTTIME	20	8	1	29
TOTAL	117	44	2	163

COLLISION DIAGRAM

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2015 TO 12/31/2015 PREPARED BY HNTB



MATCHLINE - SEE SHEET 4

SYMBOLS

- | | | | | |
|--|---|--|---|---|
| <ul style="list-style-type: none"> OVERTURNED VEHICLE BACKING VEHICLE OUT OF CONTROL | <ul style="list-style-type: none"> HEAD-ON COLLISION ANGLE COLLISION RIGHT TURN COLLISION | <ul style="list-style-type: none"> COLLISION W/ PED. COLLISION W/ BIKE LEFT TURN COLLISION | <ul style="list-style-type: none"> REAR-END COLLISION SIDE SWIPE PERSONAL INJURY FATALITY | <ul style="list-style-type: none"> COLLISION NUMBER YEAR OF COLLISION (I.E. 9 = 2011) |
|--|---|--|---|---|

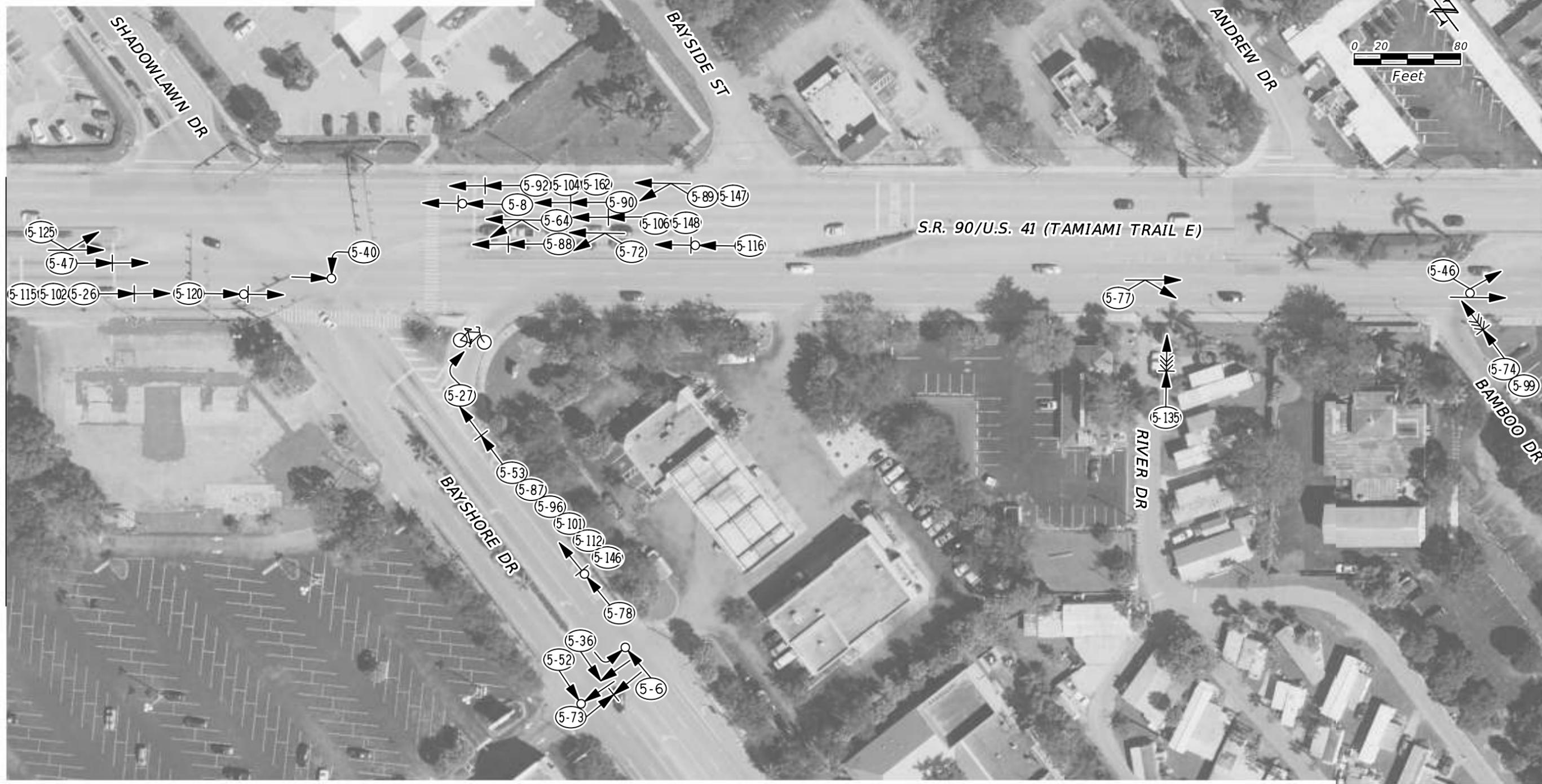
CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	97	36	1	134
NIGHTTIME	20	8	1	29
TOTAL	117	44	2	163

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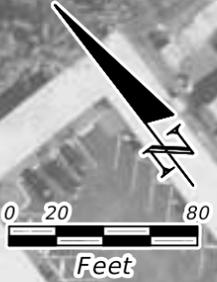
COLLISION DIAGRAM

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2015 TO 12/31/2015 PREPARED BY HNTB



MATCHLINE - SEE SHEET 3

MATCHLINE - SEE SHEET 5



SYMBOLS

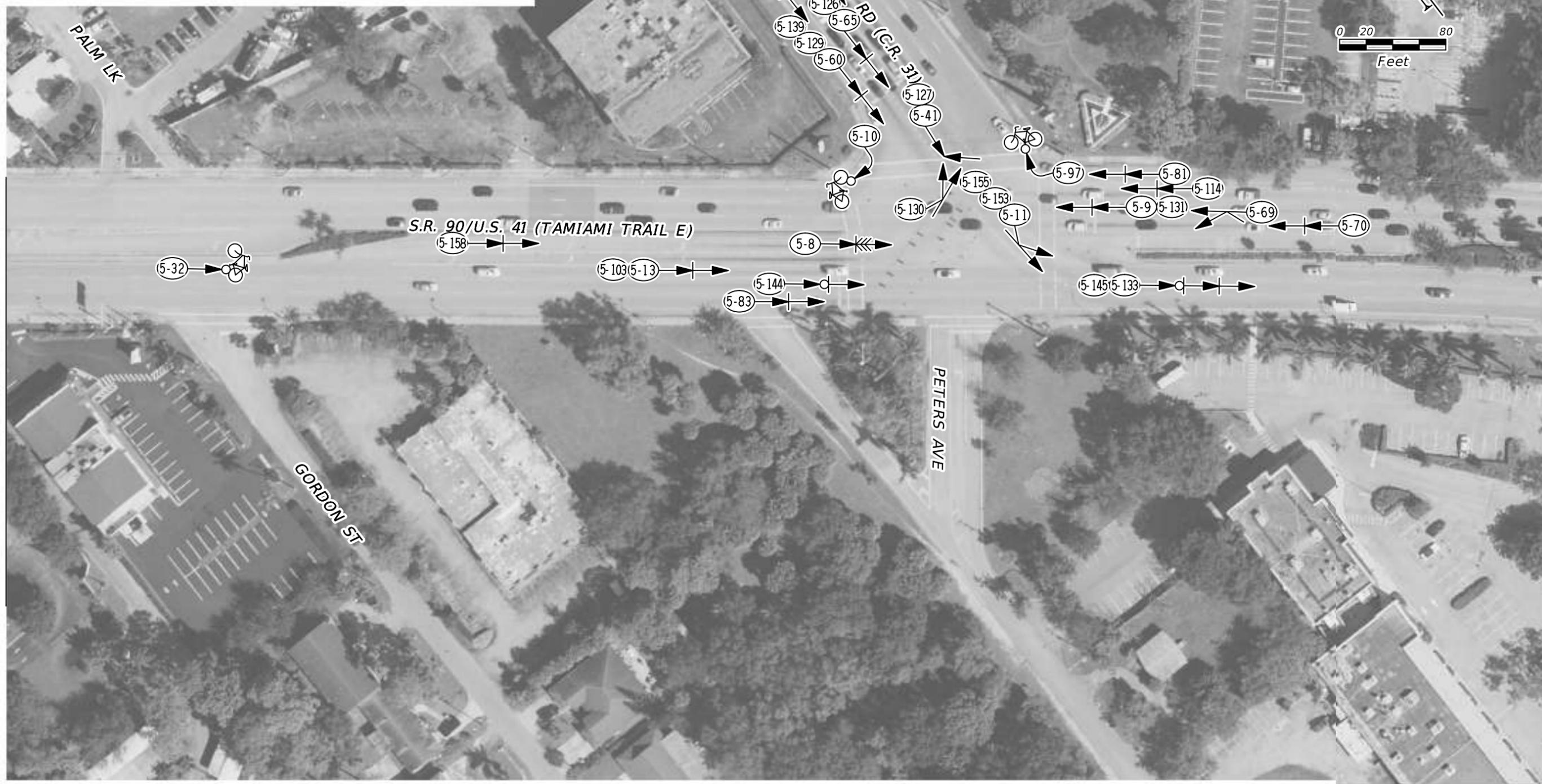
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|--|--------------------|--|----------------------|--|---------------------|--|-------------------------------------|
| | OVERTURNED VEHICLE | | HEAD-ON COLLISION | | COLLISION W/ PED. | | REAR-END COLLISION |
| | BACKING VEHICLE | | ANGLE COLLISION | | COLLISION W/ BIKE | | SIDE SWIPE |
| | OUT OF CONTROL | | RIGHT TURN COLLISION | | LEFT TURN COLLISION | | PERSONAL INJURY |
| | | | | | FATALITY | | COLLISION NUMBER
(I.E. 9 = 2011) |

CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	97	36	1	134
NIGHTTIME	20	8	1	29
TOTAL	117	44	2	163

COLLISION DIAGRAM

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2015 TO 12/31/2015 PREPARED BY HNTB



MATCHLINE - SEE SHEET 4

MATCHLINE - SEE SHEET 6

SYMBOLS

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CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	97	36	1	134
NIGHTTIME	20	8	1	29
TOTAL	117	44	2	163

COLLISION DIAGRAM

11.C.1

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2015 TO 12/31/2015 PREPARED BY HNTB



SYMBOLS

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CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	97	36	1	134
NIGHTTIME	20	8	1	29
TOTAL	117	44	2	163

MATCHLINE - SEE SHEET 7

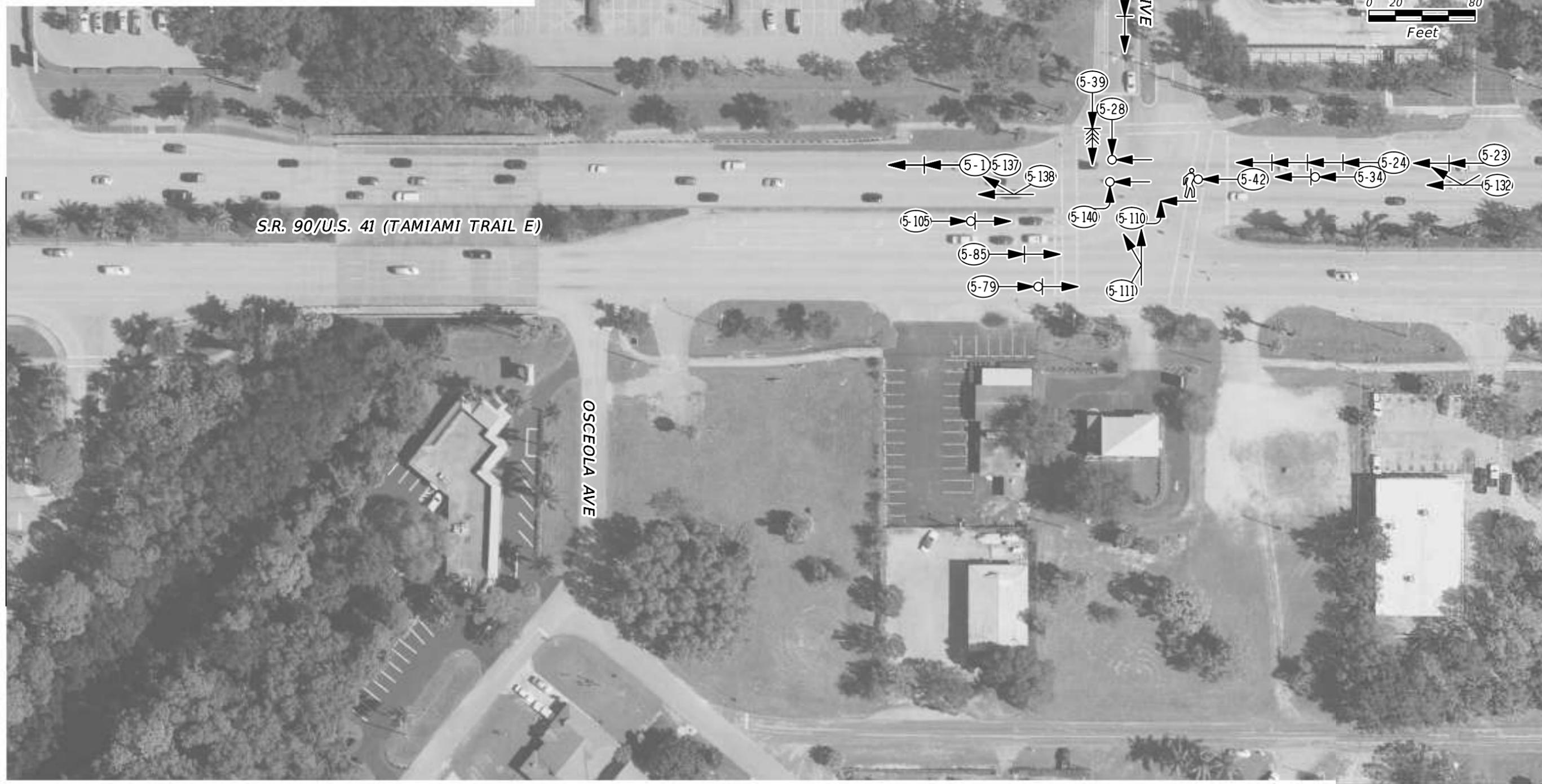
SHEET
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Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm

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COLLISION DIAGRAM

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2015 TO 12/31/2015 PREPARED BY HNTB



MATCHLINE - SEE SHEET 6

MATCHLINE - SEE SHEET 8

SYMBOLS

														
<p style="font-size: small;">OVERTURNED VEHICLE HEAD-ON COLLISION COLLISION W/ PED. REAR-END COLLISION COLLISION NUMBER</p> <p style="font-size: small;">BACKING VEHICLE ANGLE COLLISION COLLISION W/ BIKE SIDE SWIPE YEAR OF COLLISION (I.E. 9 = 2011)</p> <p style="font-size: small;">OUT OF CONTROL RIGHT TURN COLLISION LEFT TURN COLLISION PERSONAL INJURY FATALITY</p>														

CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	97	36	1	134
NIGHTTIME	20	8	1	29
TOTAL	117	44	2	163

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COLLISION DIAGRAM

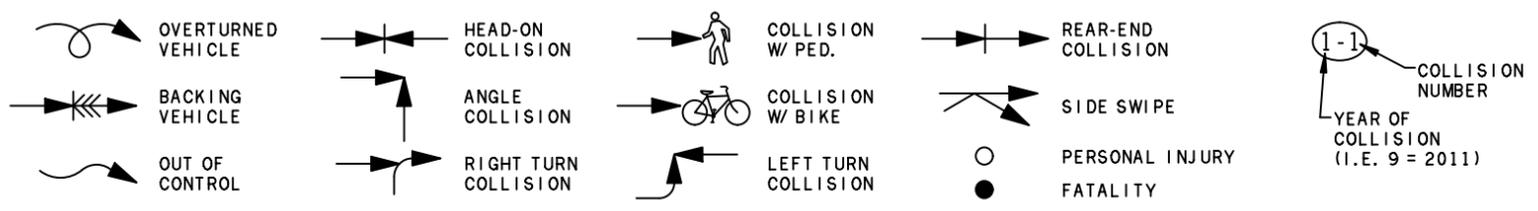
LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2015 TO 12/31/2015 PREPARED BY HNTB



MATCHLINE - SEE SHEET 7

MATCHLINE - SEE SHEET 9

SYMBOLS

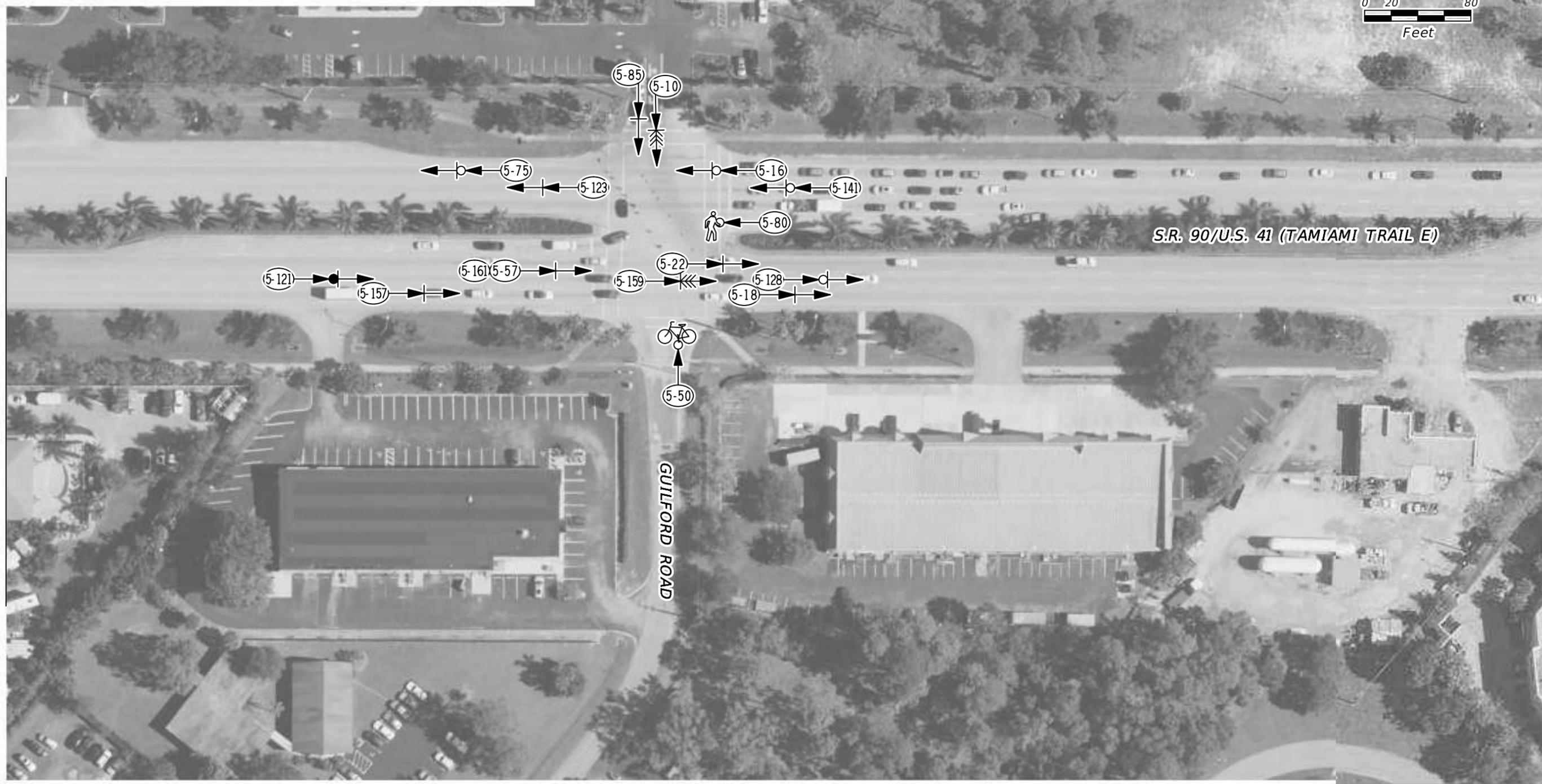
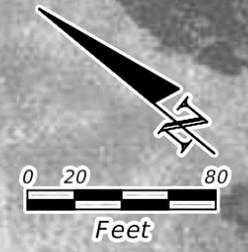


CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	97	36	1	134
NIGHTTIME	20	8	1	29
TOTAL	117	44	2	163

COLLISION DIAGRAM

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2015 TO 12/31/2015 PREPARED BY HNTB



MATCHLINE - SEE SHEET 8

SYMBOLS

- OVERTURNED VEHICLE
- BACKING VEHICLE
- OUT OF CONTROL
- HEAD-ON COLLISION
- ANGLE COLLISION
- RIGHT TURN COLLISION
- COLLISION W/ PED.
- COLLISION W/ BIKE
- LEFT TURN COLLISION
- REAR-END COLLISION
- SIDE SWIPE
- PERSONAL INJURY
- FATALITY
- COLLISION NUMBER
(I.E. 9 = 2011)

CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	97	36	1	134
NIGHTTIME	20	8	1	29
TOTAL	117	44	2	163



APPENDIX E

SYNCHRO REPORTS

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to

HCM Signalized Intersection Capacity Analysis
5: Airport Pulling Road & US 41

Existing AM
11/02/2017

Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEU	SEL	SET	SER	NWL	NWT	
Lane Configurations													
Traffic Volume (vph)	1	0	0	451	2	181	1	313	558	0	0	1279	
Future Volume (vph)	1	0	0	451	2	181	1	313	558	0	0	1279	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	7.2			7.2	7.2	7.2		7.2	7.2			7.2	
Lane Util. Factor	1.00			0.91	0.91	1.00		0.97	0.91			0.91	
Frt	1.00			1.00	1.00	0.85		1.00	1.00			1.00	
Flt Protected	0.95			0.95	0.95	1.00		0.95	1.00			1.00	
Satd. Flow (prot)	1770			3221	1615	1583		3433	5085			5085	
Flt Permitted	0.95			0.95	0.95	1.00		0.95	1.00			1.00	
Satd. Flow (perm)	1770			3221	1615	1583		3433	5085			5085	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	1	0	0	490	2	197	1	340	607	0	0	1390	
RTOR Reduction (vph)	0	0	0	0	0	167	0	0	0	0	0	0	
Lane Group Flow (vph)	1	0	0	328	164	30	0	341	607	0	0	1390	
Turn Type	Split			Split	NA	Prot	Prot	Prot	NA		Prot	NA	
Protected Phases	4	4		8	8	8	1	1	6		5	2	
Permitted Phases													
Actuated Green, G (s)	1.4			21.3	21.3	21.3		19.0	95.7			69.5	
Effective Green, g (s)	1.4			21.3	21.3	21.3		19.0	95.7			69.5	
Actuated g/C Ratio	0.01			0.15	0.15	0.15		0.14	0.68			0.50	
Clearance Time (s)	7.2			7.2	7.2	7.2		7.2	7.2			7.2	
Vehicle Extension (s)	3.0			3.0	3.0	3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)	17			490	245	240		465	3475			2524	
v/s Ratio Prot	0.00			c0.10	0.10	0.02		c0.10	0.12			0.27	
v/s Ratio Perm													
v/c Ratio	0.06			0.67	0.67	0.12		0.73	0.17			0.55	
Uniform Delay, d1	68.6			56.0	56.0	51.3		58.1	8.0			24.4	
Progression Factor	1.00			1.00	1.00	1.00		0.76	1.85			0.33	
Incremental Delay, d2	1.5			3.5	6.8	0.2		5.7	0.1			0.8	
Delay (s)	70.1			59.5	62.8	51.5		50.1	14.9			8.9	
Level of Service	E			E	E	D		D	B			A	
Approach Delay (s)		70.1			58.0				27.5			8.7	
Approach LOS		E			E				C			A	
Intersection Summary													
HCM 2000 Control Delay			23.1		HCM 2000 Level of Service				C				
HCM 2000 Volume to Capacity ratio			0.72										
Actuated Cycle Length (s)			140.0		Sum of lost time (s)				28.8				
Intersection Capacity Utilization			74.7%		ICU Level of Service				D				
Analysis Period (min)			15										

c Critical Lane Group

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to

HCM Signalized Intersection Capacity Analysis
5: Airport Pulling Road & US 41

Existing AM
11/02/2017



Movement	NWR
Lane Configurations	T
Traffic Volume (vph)	541
Future Volume (vph)	541
Ideal Flow (vphpl)	1900
Total Lost time (s)	7.2
Lane Util. Factor	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1583
Flt Permitted	1.00
Satd. Flow (perm)	1583
Peak-hour factor, PHF	0.92
Adj. Flow (vph)	588
RTOR Reduction (vph)	0
Lane Group Flow (vph)	588
Turn Type	custom
Protected Phases	2
Permitted Phases	2 4
Actuated Green, G (s)	70.9
Effective Green, g (s)	70.9
Actuated g/C Ratio	0.51
Clearance Time (s)	7.2
Vehicle Extension (s)	3.0
Lane Grp Cap (vph)	883
v/s Ratio Prot	c0.33
v/s Ratio Perm	0.04
v/c Ratio	0.67
Uniform Delay, d1	25.7
Progression Factor	0.26
Incremental Delay, d2	1.7
Delay (s)	8.3
Level of Service	A
Approach Delay (s)	
Approach LOS	
Intersection Summary	

HCM Signalized Intersection Capacity Analysis
 9: Guilford Road & US 41

Existing AM
 11/02/2017

Movement	SEU	SEL	SET	SER	NWU	NWL	NWT	NWR	NEL	NET	NER	SWL
Lane Configurations												
Traffic Volume (vph)	9	14	859	2	8	9	2301	31	26	0	8	15
Future Volume (vph)	9	14	859	2	8	9	2301	31	26	0	8	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.8	6.8			6.8	6.8			7.1	7.1	
Lane Util. Factor		1.00	0.91			1.00	0.91			1.00	1.00	
Frt		1.00	1.00			1.00	1.00			1.00	0.85	
Flt Protected		0.95	1.00			0.95	1.00			0.95	1.00	
Satd. Flow (prot)		1770	5084			1770	5075			1770	1583	
Flt Permitted		0.04	1.00			0.29	1.00			0.75	1.00	
Satd. Flow (perm)		74	5084			546	5075			1392	1583	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	10	15	934	2	9	10	2501	34	28	0	9	16
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	9	0
Lane Group Flow (vph)	0	25	936	0	0	19	2535	0	0	28	0	0
Turn Type	pm+pt	pm+pt	NA		pm+pt	pm+pt	NA		Perm	NA	Perm	Perm
Protected Phases	1	1	6		5	5	2			4		
Permitted Phases	6	6			2	2			4		4	8
Actuated Green, G (s)		114.1	109.9			112.7	109.2			5.9	5.9	
Effective Green, g (s)		114.1	109.9			112.7	109.2			5.9	5.9	
Actuated g/C Ratio		0.81	0.79			0.81	0.78			0.04	0.04	
Clearance Time (s)		6.8	6.8			6.8	6.8			7.1	7.1	
Vehicle Extension (s)		3.0	3.0			3.0	3.0			3.0	3.0	
Lane Grp Cap (vph)		111	3990			470	3958			58	66	
v/s Ratio Prot		c0.01	0.18			0.00	c0.50					
v/s Ratio Perm		0.18				0.03				c0.02	0.00	
v/c Ratio		0.23	0.23			0.04	0.64			0.48	0.01	
Uniform Delay, d1		5.9	4.0			2.7	6.8			65.6	64.2	
Progression Factor		5.82	1.17			1.00	1.00			1.00	1.00	
Incremental Delay, d2		1.0	0.1			0.0	0.8			6.2	0.0	
Delay (s)		35.1	4.8			2.7	7.6			71.8	64.3	
Level of Service		D	A			A	A			E	E	
Approach Delay (s)			5.6				7.5			69.9		
Approach LOS			A				A			E		

Intersection Summary		
HCM 2000 Control Delay	8.1	HCM 2000 Level of Service
HCM 2000 Volume to Capacity ratio	0.62	A
Actuated Cycle Length (s)	140.0	Sum of lost time (s)
Intersection Capacity Utilization	74.3%	20.7
Analysis Period (min)	15	ICU Level of Service
		D

c Critical Lane Group

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to

HCM Signalized Intersection Capacity Analysis

9: Guilford Road & US 41

Existing AM
11/02/2017



Movement	SWT	SWR
Lane Configurations	↔	↔
Traffic Volume (vph)	0	9
Future Volume (vph)	0	9
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	7.1	7.1
Lane Util. Factor	1.00	1.00
Frt	1.00	0.85
Flt Protected	0.95	1.00
Satd. Flow (prot)	1770	1583
Flt Permitted	0.74	1.00
Satd. Flow (perm)	1377	1583
Peak-hour factor, PHF	0.92	0.92
Adj. Flow (vph)	0	10
RTOR Reduction (vph)	0	10
Lane Group Flow (vph)	16	0
Turn Type	NA	Perm
Protected Phases	8	
Permitted Phases		8
Actuated Green, G (s)	5.9	5.9
Effective Green, g (s)	5.9	5.9
Actuated g/C Ratio	0.04	0.04
Clearance Time (s)	7.1	7.1
Vehicle Extension (s)	3.0	3.0
Lane Grp Cap (vph)	58	66
v/s Ratio Prot		
v/s Ratio Perm	0.01	0.00
v/c Ratio	0.28	0.01
Uniform Delay, d1	65.0	64.2
Progression Factor	1.00	1.00
Incremental Delay, d2	2.6	0.0
Delay (s)	67.6	64.3
Level of Service	E	E
Approach Delay (s)	66.3	
Approach LOS	E	
Intersection Summary		

HCM Signalized Intersection Capacity Analysis
12: Palm Drive & US 41

Existing AM
11/02/2017

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	57	843	0	2	1867	26	0	3	0	0	29	36
Future Volume (vph)	57	843	0	2	1867	26	0	3	0	0	29	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.8	6.8		6.8	6.8	6.8		6.8			7.2	7.2
Lane Util. Factor	0.97	0.91		1.00	0.91	1.00		1.00			1.00	1.00
Frt	1.00	1.00		1.00	1.00	0.85		1.00			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00		1.00			1.00	1.00
Satd. Flow (prot)	3433	5085		1770	5085	1583		1863			1863	1583
Flt Permitted	0.95	1.00		0.95	1.00	1.00		1.00			1.00	1.00
Satd. Flow (perm)	3433	5085		1770	5085	1583		1863			1863	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	62	916	0	2	2029	28	0	3	0	0	32	39
RTOR Reduction (vph)	0	0	0	0	0	9	0	0	0	0	0	33
Lane Group Flow (vph)	62	916	0	2	2029	19	0	3	0	0	32	6
Turn Type	Prot	NA		Prot	NA	Perm		NA			NA	Perm
Protected Phases	1	6		5	2			4			8	
Permitted Phases						2	4			8		8
Actuated Green, G (s)	6.8	98.0		1.4	92.6	92.6		20.2			19.8	19.8
Effective Green, g (s)	6.8	98.0		1.4	92.6	92.6		20.2			19.8	19.8
Actuated g/C Ratio	0.05	0.70		0.01	0.66	0.66		0.14			0.14	0.14
Clearance Time (s)	6.8	6.8		6.8	6.8	6.8		6.8			7.2	7.2
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0		3.0			3.0	3.0
Lane Grp Cap (vph)	166	3559		17	3363	1047		268			263	223
v/s Ratio Prot	c0.02	c0.18		0.00	c0.40			0.00			c0.02	
v/s Ratio Perm						0.01						0.00
v/c Ratio	0.37	0.26		0.12	0.60	0.02		0.01			0.12	0.02
Uniform Delay, d1	64.5	7.7		68.7	13.4	8.1		51.3			52.5	51.8
Progression Factor	1.01	0.76		1.54	0.59	1.00		1.00			1.00	1.00
Incremental Delay, d2	1.4	0.2		1.2	0.3	0.0		0.1			0.2	0.0
Delay (s)	66.4	6.0		107.2	8.2	8.1		51.4			52.7	51.8
Level of Service	E	A		F	A	A		D			D	D
Approach Delay (s)		9.8			8.3			51.4			52.2	
Approach LOS		A			A			D			D	

Intersection Summary		
HCM 2000 Control Delay	9.8	HCM 2000 Level of Service
HCM 2000 Volume to Capacity ratio	0.51	A
Actuated Cycle Length (s)	140.0	Sum of lost time (s)
Intersection Capacity Utilization	65.1%	20.8
Analysis Period (min)	15	ICU Level of Service
		C

c Critical Lane Group

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to

HCM Signalized Intersection Capacity Analysis
15: Espinal Blvd & US 41

Existing AM
11/02/2017



Movement	SBL	SBR	SBR2	SEU	SEL	SET	SER	NWU	NWL	NWT	NWR	NEL2
Lane Configurations	↘		↗		↘	↑↑↑	↗			↑↑↑	↗	↘
Traffic Volume (vph)	15	0	15	25	62	754	44	1	57	1698	96	48
Future Volume (vph)	15	0	15	25	62	754	44	1	57	1698	96	48
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.2		7.2		6.8	6.8	6.8		6.8	6.8	6.8	7.2
Lane Util. Factor	1.00		1.00		1.00	0.91	1.00		1.00	0.91	1.00	1.00
Frt	1.00		0.85		1.00	1.00	0.85		1.00	1.00	0.85	1.00
Flt Protected	0.95		1.00		0.95	1.00	1.00		0.95	1.00	1.00	0.95
Satd. Flow (prot)	1770		1583		1770	5085	1583		1770	5085	1583	1770
Flt Permitted	1.00		1.00		0.08	1.00	1.00		0.33	1.00	1.00	0.95
Satd. Flow (perm)	1863		1583		158	5085	1583		616	5085	1583	1770
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	16	0	16	27	67	820	48	1	62	1846	104	52
RTOR Reduction (vph)	0	0	14	0	0	0	15	0	0	0	28	0
Lane Group Flow (vph)	16	0	2	0	94	820	33	0	63	1846	76	52
Turn Type	Perm		Perm	pm+pt	pm+pt	NA	Perm	pm+pt	pm+pt	NA	Perm	Perm
Protected Phases				1	1	6		5	5	2		
Permitted Phases	8		8	6	6		6	2	2		2	4
Actuated Green, G (s)	15.5		15.5		106.8	97.5	97.5		100.6	94.4	94.4	15.5
Effective Green, g (s)	15.5		15.5		106.8	97.5	97.5		100.6	94.4	94.4	15.5
Actuated g/C Ratio	0.11		0.11		0.76	0.70	0.70		0.72	0.67	0.67	0.11
Clearance Time (s)	7.2		7.2		6.8	6.8	6.8		6.8	6.8	6.8	7.2
Vehicle Extension (s)	3.0		3.0		3.0	3.0	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	206		175		227	3541	1102		493	3428	1067	195
v/s Ratio Prot					c0.03	0.16			0.01	c0.36		
v/s Ratio Perm	0.01		0.00		c0.29		0.02		0.09		0.05	c0.03
v/c Ratio	0.08		0.01		0.41	0.23	0.03		0.13	0.54	0.07	0.27
Uniform Delay, d1	55.8		55.4		7.8	7.7	6.6		5.7	11.7	7.8	57.0
Progression Factor	1.00		1.00		1.95	0.84	6.20		0.22	0.50	0.65	1.00
Incremental Delay, d2	0.2		0.0		1.2	0.1	0.0		0.1	0.5	0.1	0.7
Delay (s)	56.0		55.4		16.5	6.6	40.9		1.3	6.4	5.2	57.8
Level of Service	E		E		B	A	D		A	A	A	E
Approach Delay (s)	55.7					9.3				6.2		
Approach LOS	E					A				A		

Intersection Summary		
HCM 2000 Control Delay	8.7	HCM 2000 Level of Service
HCM 2000 Volume to Capacity ratio	0.50	A
Actuated Cycle Length (s)	140.0	Sum of lost time (s)
Intersection Capacity Utilization	73.6%	20.8
Analysis Period (min)	15	ICU Level of Service
		D

c Critical Lane Group

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to

HCM Signalized Intersection Capacity Analysis
 15: Espinal Blvd & US 41

Existing AM
 11/02/2017



Movement	NEL	NER
Lane Configurations		
Traffic Volume (vph)	1	11
Future Volume (vph)	1	11
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	7.2	7.2
Lane Util. Factor	1.00	1.00
Frt	1.00	0.85
Flt Protected	0.95	1.00
Satd. Flow (prot)	1770	1583
Flt Permitted	0.95	1.00
Satd. Flow (perm)	1770	1583
Peak-hour factor, PHF	0.92	0.92
Adj. Flow (vph)	1	12
RTOR Reduction (vph)	0	11
Lane Group Flow (vph)	1	1
Turn Type	Perm	Perm
Protected Phases		
Permitted Phases	4	4
Actuated Green, G (s)	15.5	15.5
Effective Green, g (s)	15.5	15.5
Actuated g/C Ratio	0.11	0.11
Clearance Time (s)	7.2	7.2
Vehicle Extension (s)	3.0	3.0
Lane Grp Cap (vph)	195	175
v/s Ratio Prot		
v/s Ratio Perm	0.00	0.00
v/c Ratio	0.01	0.01
Uniform Delay, d1	55.4	55.4
Progression Factor	1.00	1.00
Incremental Delay, d2	0.0	0.0
Delay (s)	55.4	55.4
Level of Service	E	E
Approach Delay (s)	57.3	
Approach LOS	E	
Intersection Summary		

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to

HCM Signalized Intersection Capacity Analysis
 20: Bayshore Drive & US 41

Existing AM
 11/02/2017

Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEU	SEL	SET	SER	NWU	NWL
Lane Configurations												
Traffic Volume (vph)	244	58	214	27	64	18	19	10	538	76	6	201
Future Volume (vph)	244	58	214	27	64	18	19	10	538	76	6	201
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.3	7.3	7.3	7.3	7.3			7.6	7.6			7.6
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00			1.00	0.91			0.97
Frt	1.00	1.00	0.85	1.00	0.97			1.00	0.98			1.00
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.95	1.00			0.95
Satd. Flow (prot)	1770	1863	1583	1770	1801			1770	4991			3433
Flt Permitted	0.95	1.00	1.00	0.95	1.00			0.95	1.00			0.95
Satd. Flow (perm)	1770	1863	1583	1770	1801			1770	4991			3433
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	265	63	233	29	70	20	21	11	585	83	7	218
RTOR Reduction (vph)	0	0	178	0	8	0	0	0	0	0	0	0
Lane Group Flow (vph)	265	63	55	29	82	0	0	32	668	0	0	225
Turn Type	Prot	NA	Perm	Prot	NA			Prot	Prot	NA		Prot
Protected Phases	7	4		3	8			1	1	6		5
Permitted Phases			4									5
Actuated Green, G (s)	23.9	33.1	33.1	5.4	14.6			5.6	57.2			14.5
Effective Green, g (s)	23.9	33.1	33.1	5.4	14.6			5.6	57.2			14.5
Actuated g/C Ratio	0.17	0.24	0.24	0.04	0.10			0.04	0.41			0.10
Clearance Time (s)	7.3	7.3	7.3	7.3	7.3			7.6	7.6			7.6
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0			3.0	3.0			3.0
Lane Grp Cap (vph)	302	440	374	68	187			70	2039			355
v/s Ratio Prot	c0.15	0.03		0.02	c0.05			0.02	0.13			c0.07
v/s Ratio Perm			0.03									
v/c Ratio	0.88	0.14	0.15	0.43	0.44			0.46	0.33			0.63
Uniform Delay, d1	56.6	42.2	42.3	65.8	58.9			65.7	28.3			60.2
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00			0.91
Incremental Delay, d2	23.7	0.2	0.2	4.3	1.6			4.7	0.4			3.3
Delay (s)	80.3	42.4	42.5	70.0	60.5			70.4	28.7			57.8
Level of Service	F	D	D	E	E			E	C			E
Approach Delay (s)		60.3			62.8				30.6			
Approach LOS		E			E				C			
Intersection Summary												
HCM 2000 Control Delay			36.1	HCM 2000 Level of Service				D				
HCM 2000 Volume to Capacity ratio			0.65									
Actuated Cycle Length (s)			140.0	Sum of lost time (s)				29.8				
Intersection Capacity Utilization			69.2%	ICU Level of Service				C				
Analysis Period (min)			15									
c Critical Lane Group												

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to

HCM Signalized Intersection Capacity Analysis
 20: Bayshore Drive & US 41

Existing AM
 11/02/2017



Movement	NWT	NWR
Lane Configurations	↑↑↑	
Traffic Volume (vph)	1202	55
Future Volume (vph)	1202	55
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	7.6	
Lane Util. Factor	0.91	
Frt	0.99	
Flt Protected	1.00	
Satd. Flow (prot)	5052	
Flt Permitted	1.00	
Satd. Flow (perm)	5052	
Peak-hour factor, PHF	0.92	0.92
Adj. Flow (vph)	1307	60
RTOR Reduction (vph)	0	0
Lane Group Flow (vph)	1367	0
Turn Type	NA	
Protected Phases	2	
Permitted Phases		
Actuated Green, G (s)	66.1	
Effective Green, g (s)	66.1	
Actuated g/C Ratio	0.47	
Clearance Time (s)	7.6	
Vehicle Extension (s)	3.0	
Lane Grp Cap (vph)	2385	
v/s Ratio Prot	c0.27	
v/s Ratio Perm		
v/c Ratio	0.57	
Uniform Delay, d1	26.7	
Progression Factor	0.83	
Incremental Delay, d2	0.9	
Delay (s)	23.1	
Level of Service	C	
Approach Delay (s)	28.0	
Approach LOS	C	
Intersection Summary		

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to

HCM Signalized Intersection Capacity Analysis
 23: Commercial Drive & US 41/US 41_1

Existing AM
 11/02/2017



Movement	SEU	SEL	SET	SER	NWU	NWL	NWT	NWR	NEL	NET	NER	SWL
Lane Configurations		↔	↑↑↑				↔	↑↑↑	↔	↔		↔
Traffic Volume (vph)	5	31	496	5	1	32	1281	32	34	43	12	45
Future Volume (vph)	5	31	496	5	1	32	1281	32	34	43	12	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.8	7.8			7.8	7.8		8.0	8.0		8.0
Lane Util. Factor		1.00	0.91			1.00	0.91		1.00	1.00		1.00
Frt		1.00	1.00			1.00	1.00		1.00	0.97		1.00
Flt Protected		0.95	1.00			0.95	1.00		0.95	1.00		0.95
Satd. Flow (prot)		1770	5078			1770	5067		1770	1802		1770
Flt Permitted		0.13	1.00			0.44	1.00		0.95	1.00		0.95
Satd. Flow (perm)		242	5078			817	5067		1770	1802		1770
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	34	539	5	1	35	1392	35	37	47	13	49
RTOR Reduction (vph)	0	0	0	0	0	0	2	0	0	9	0	0
Lane Group Flow (vph)	0	39	544	0	0	36	1425	0	37	51	0	49
Turn Type	pm+pt	pm+pt	NA		pm+pt	pm+pt	NA		Prot	NA		Prot
Protected Phases	1	1	6		5	5	2		7	4		3
Permitted Phases	6	6			2	2						
Actuated Green, G (s)		57.0	52.8			56.8	52.7		5.5	9.5		7.0
Effective Green, g (s)		57.0	52.8			56.8	52.7		5.5	9.5		7.0
Actuated g/C Ratio		0.54	0.50			0.54	0.50		0.05	0.09		0.07
Clearance Time (s)		7.8	7.8			7.8	7.8		8.0	8.0		8.0
Vehicle Extension (s)		3.0	3.0			3.0	3.0		3.0	3.0		3.0
Lane Grp Cap (vph)		192	2553			479	2543		92	163		118
v/s Ratio Prot		c0.01	0.11			0.00	c0.28		0.02	c0.03		0.03
v/s Ratio Perm		0.10				0.04						
v/c Ratio		0.20	0.21			0.08	0.56		0.40	0.31		0.42
Uniform Delay, d1		12.2	14.5			11.3	18.1		48.2	44.7		47.0
Progression Factor		1.00	1.00			1.00	1.00		1.00	1.00		1.00
Incremental Delay, d2		0.5	0.2			0.1	0.9		2.9	1.1		2.4
Delay (s)		12.8	14.7			11.4	19.0		51.0	45.8		49.4
Level of Service		B	B			B	B		D	D		D
Approach Delay (s)			14.6				18.8			47.8		
Approach LOS			B				B			D		

Intersection Summary			
HCM 2000 Control Delay	21.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	105.0	Sum of lost time (s)	31.6
Intersection Capacity Utilization	61.9%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to

HCM Signalized Intersection Capacity Analysis

23: Commercial Drive & US 41/US 41_1

Existing AM
11/02/2017



Movement	SWT	SWR
Lane Configurations	↔	
Traffic Volume (vph)	42	107
Future Volume (vph)	42	107
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	8.0	
Lane Util. Factor	1.00	
Frt	0.89	
Flt Protected	1.00	
Satd. Flow (prot)	1663	
Flt Permitted	1.00	
Satd. Flow (perm)	1663	
Peak-hour factor, PHF	0.92	0.92
Adj. Flow (vph)	46	116
RTOR Reduction (vph)	85	0
Lane Group Flow (vph)	77	0
Turn Type	NA	
Protected Phases	8	
Permitted Phases		
Actuated Green, G (s)	11.0	
Effective Green, g (s)	11.0	
Actuated g/C Ratio	0.10	
Clearance Time (s)	8.0	
Vehicle Extension (s)	3.0	
Lane Grp Cap (vph)	174	
v/s Ratio Prot	c0.05	
v/s Ratio Perm		
v/c Ratio	0.44	
Uniform Delay, d1	44.1	
Progression Factor	1.00	
Incremental Delay, d2	1.8	
Delay (s)	45.9	
Level of Service	D	
Approach Delay (s)	46.7	
Approach LOS	D	
Intersection Summary		

Synchro 9 Report

Arterial Level of Service

Existing AM

11/02/2017

Arterial Level of Service: NW US 41

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Guilford Road	II	45	18.8	7.5	26.3	0.17	23.6	C
Palm Drive	II	45	35.8	23.3	59.1	0.37	22.7	C
Espinal Blvd	II	45	24.5	8.4	32.9	0.24	25.8	C
Airport Pulling Road	II	45	22.9	9.7	32.6	0.21	23.2	C
Bayshore Drive	II	45	31.8	21.5	53.3	0.32	21.7	D
Commercial Drive	II	45	49.3	17.4	66.7	0.62	33.3	B
Total	II		183.1	87.8	270.9	1.93	25.6	C

Arterial Level of Service: SE US 41

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Bayshore Drive	II	45	49.3	28.1	77.4	0.62	28.7	B
Airport Pulling Road	II	45	31.8	13.3	45.1	0.32	25.7	C
Espinal Blvd	II	45	22.9	9.0	31.9	0.21	23.7	C
Palm Drive	II	45	24.5	4.9	29.4	0.24	28.9	B
Guilford Road	II	45	35.8	4.7	40.5	0.37	33.1	B
Total	II		164.3	60.0	224.3	1.76	28.2	B

Synchro 9 Report

HCM Signalized Intersection Capacity Analysis
5: Airport Pulling Road & US 41

Existing PM
11/02/2017

Movement	NBL	NBT	NBR	SBU	SBL	SBT	SBR	SEU	SEL	SET	SER	NWU
Lane Configurations												
Traffic Volume (vph)	2	5	3	2	783	14	273	17	333	1377	0	2
Future Volume (vph)	2	5	3	2	783	14	273	17	333	1377	0	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.2	7.2			7.2	7.2	7.2		7.2	7.2		
Lane Util. Factor	1.00	1.00			0.91	0.91	1.00		0.97	0.91		
Frt	1.00	0.94			1.00	1.00	0.85		1.00	1.00		
Flt Protected	0.95	1.00			0.95	0.95	1.00		0.95	1.00		
Satd. Flow (prot)	1770	1758			3221	1618	1583		3433	5085		
Flt Permitted	0.95	1.00			0.95	0.95	1.00		0.95	1.00		
Satd. Flow (perm)	1770	1758			3221	1618	1583		3433	5085		
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	2	5	3	2	851	15	297	18	362	1497	0	2
RTOR Reduction (vph)	0	3	0	0	0	0	230	0	0	0	0	0
Lane Group Flow (vph)	2	5	0	0	581	287	67	0	380	1497	0	0
Turn Type	Split	NA		Split	Split	NA	Prot	Prot	Prot	NA		Prot
Protected Phases	4	4		8	8	8	8	1	1	6		5
Permitted Phases												
Actuated Green, G (s)	3.9	3.9			31.7	31.7	31.7		18.7	74.2		
Effective Green, g (s)	3.9	3.9			31.7	31.7	31.7		18.7	74.2		
Actuated g/C Ratio	0.03	0.03			0.23	0.23	0.23		0.13	0.53		
Clearance Time (s)	7.2	7.2			7.2	7.2	7.2		7.2	7.2		
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0		3.0	3.0		
Lane Grp Cap (vph)	49	48			729	366	358		458	2695		
v/s Ratio Prot	0.00	0.00			c0.18	0.18	0.04		c0.11	0.29		
v/s Ratio Perm												
v/c Ratio	0.04	0.11			0.80	0.78	0.19		0.83	0.56		
Uniform Delay, d1	66.2	66.4			51.1	50.9	43.7		59.1	21.9		
Progression Factor	1.00	1.00			1.00	1.00	1.00		0.89	0.66		
Incremental Delay, d2	0.3	1.0			6.1	10.5	0.3		10.1	0.7		
Delay (s)	66.6	67.3			57.2	61.4	44.0		62.5	15.2		
Level of Service	E	E			E	E	D		E	B		
Approach Delay (s)		67.2				54.9				24.8		
Approach LOS		E				D				C		
Intersection Summary												
HCM 2000 Control Delay			31.9		HCM 2000 Level of Service					C		
HCM 2000 Volume to Capacity ratio			0.90									
Actuated Cycle Length (s)			140.0		Sum of lost time (s)					28.8		
Intersection Capacity Utilization			88.1%		ICU Level of Service					E		
Analysis Period (min)			15									

c Critical Lane Group

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to

HCM Signalized Intersection Capacity Analysis
5: Airport Pulling Road & US 41

Existing PM
11/02/2017



Movement	NWL	NWT	NWR
Lane Configurations			
Traffic Volume (vph)	0	1113	622
Future Volume (vph)	0	1113	622
Ideal Flow (vphpl)	1900	1900	1900
Total Lost time (s)	7.2	7.2	7.2
Lane Util. Factor	1.00	0.91	1.00
Frt	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00
Satd. Flow (prot)	1770	5085	1583
Flt Permitted	0.95	1.00	1.00
Satd. Flow (perm)	1770	5085	1583
Peak-hour factor, PHF	0.92	0.92	0.92
Adj. Flow (vph)	0	1210	676
RTOR Reduction (vph)	0	0	0
Lane Group Flow (vph)	2	1210	676
Turn Type	Prot	NA	custom
Protected Phases	5	2	2
Permitted Phases			2 4
Actuated Green, G (s)	1.4	56.9	60.8
Effective Green, g (s)	1.4	56.9	60.8
Actuated g/C Ratio	0.01	0.41	0.43
Clearance Time (s)	7.2	7.2	7.2
Vehicle Extension (s)	3.0	3.0	3.0
Lane Grp Cap (vph)	17	2066	768
v/s Ratio Prot	0.00	0.24	c0.36
v/s Ratio Perm			0.07
v/c Ratio	0.12	0.59	0.88
Uniform Delay, d1	68.7	32.4	36.3
Progression Factor	1.32	0.54	0.64
Incremental Delay, d2	3.1	1.2	11.4
Delay (s)	93.6	18.8	34.8
Level of Service	F	B	C
Approach Delay (s)		24.6	
Approach LOS		C	
Intersection Summary			

HCM Signalized Intersection Capacity Analysis
9: Guilford Road & US 41

Existing PM
11/02/2017

Movement	SEU	SEL	SET	SER	NWU	NWL	NWT	NWR	NEL	NET	NER	SWL
Lane Configurations												
Traffic Volume (vph)	38	44	1920	18	6	12	1754	51	16	1	10	123
Future Volume (vph)	38	44	1920	18	6	12	1754	51	16	1	10	123
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.8	6.8			6.8	6.8			7.1	7.1	
Lane Util. Factor		1.00	0.91			1.00	0.91			1.00	1.00	
Frt		1.00	1.00			1.00	1.00			1.00	0.85	
Flt Protected		0.95	1.00			0.95	1.00			0.95	1.00	
Satd. Flow (prot)		1770	5078			1770	5064			1779	1583	
Flt Permitted		0.07	1.00			0.06	1.00			0.70	1.00	
Satd. Flow (perm)		124	5078			121	5064			1299	1583	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	41	48	2087	20	7	13	1907	55	17	1	11	134
RTOR Reduction (vph)	0	0	1	0	0	0	2	0	0	0	9	0
Lane Group Flow (vph)	0	89	2106	0	0	20	1960	0	0	18	2	0
Turn Type	pm+pt	pm+pt	NA		pm+pt	pm+pt	NA		Perm	NA	Perm	Perm
Protected Phases	1	1	6		5	5	2			4		
Permitted Phases	6	6			2	2			4		4	8
Actuated Green, G (s)		105.1	96.1			94.5	90.8			19.5	19.5	
Effective Green, g (s)		105.1	96.1			94.5	90.8			19.5	19.5	
Actuated g/C Ratio		0.75	0.69			0.68	0.65			0.14	0.14	
Clearance Time (s)		6.8	6.8			6.8	6.8			7.1	7.1	
Vehicle Extension (s)		3.0	3.0			3.0	3.0			3.0	3.0	
Lane Grp Cap (vph)		198	3485			125	3284			180	220	
v/s Ratio Prot		c0.03	c0.41			0.00	0.39					
v/s Ratio Perm		0.31				0.10				0.01	0.00	
v/c Ratio		0.45	0.60			0.16	0.60			0.10	0.01	
Uniform Delay, d1		11.3	11.8			9.3	14.1			52.6	51.9	
Progression Factor		2.76	0.21			1.00	1.00			1.00	1.00	
Incremental Delay, d2		1.4	0.7			0.6	0.8			0.2	0.0	
Delay (s)		32.6	3.2			9.9	14.9			52.8	51.9	
Level of Service		C	A			A	B			D	D	
Approach Delay (s)			4.4				14.9			52.5		
Approach LOS			A				B			D		
Intersection Summary												
HCM 2000 Control Delay			11.6				HCM 2000 Level of Service			B		
HCM 2000 Volume to Capacity ratio			0.64									
Actuated Cycle Length (s)			140.0				Sum of lost time (s)			20.7		
Intersection Capacity Utilization			77.5%				ICU Level of Service			D		
Analysis Period (min)			15									
c	Critical Lane Group											

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to

HCM Signalized Intersection Capacity Analysis
 9: Guilford Road & US 41

Existing PM
 11/02/2017



Movement	SWT	SWR
Lane Configurations	↔	↔
Traffic Volume (vph)	1	9
Future Volume (vph)	1	9
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	7.1	7.1
Lane Util. Factor	1.00	1.00
Frt	1.00	0.85
Flt Protected	0.95	1.00
Satd. Flow (prot)	1775	1583
Flt Permitted	0.71	1.00
Satd. Flow (perm)	1332	1583
Peak-hour factor, PHF	0.92	0.92
Adj. Flow (vph)	1	10
RTOR Reduction (vph)	0	9
Lane Group Flow (vph)	135	1
Turn Type	NA	Perm
Protected Phases	8	
Permitted Phases		8
Actuated Green, G (s)	19.5	19.5
Effective Green, g (s)	19.5	19.5
Actuated g/C Ratio	0.14	0.14
Clearance Time (s)	7.1	7.1
Vehicle Extension (s)	3.0	3.0
Lane Grp Cap (vph)	185	220
v/s Ratio Prot		
v/s Ratio Perm	0.10	0.00
v/c Ratio	0.73	0.01
Uniform Delay, d1	57.7	51.9
Progression Factor	1.00	1.00
Incremental Delay, d2	13.4	0.0
Delay (s)	71.2	51.9
Level of Service	E	D
Approach Delay (s)	69.8	
Approach LOS	E	
Intersection Summary		

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to

HCM Signalized Intersection Capacity Analysis
12: Palm Drive & US 41

Existing PM
11/02/2017



Movement	WBL2	WBL	WBR	SEU	SEL	SET	SER	NWU	NWL	NWT	NWR	NEL
Lane Configurations		↔	↔		↔	↔			↔	↔	↔	↔
Traffic Volume (vph)	58	0	36	12	84	1783	0	7	1	1048	57	0
Future Volume (vph)	58	0	36	12	84	1783	0	7	1	1048	57	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.2	7.2		6.8	6.8			6.8	6.8	6.8	6.8
Lane Util. Factor		1.00	1.00		0.97	0.91			1.00	0.91	1.00	1.00
Frt		1.00	0.85		1.00	1.00			1.00	1.00	0.85	0.86
Flt Protected		0.95	1.00		0.95	1.00			0.95	1.00	1.00	1.00
Satd. Flow (prot)		1770	1583		3433	5085			1770	5085	1583	1611
Flt Permitted		0.95	1.00		0.95	1.00			0.95	1.00	1.00	1.00
Satd. Flow (perm)		1770	1583		3433	5085			1770	5085	1583	1611
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	63	0	39	13	91	1938	0	8	1	1139	62	0
RTOR Reduction (vph)	0	0	29	0	0	0	0	0	0	0	30	1
Lane Group Flow (vph)	0	63	10	0	104	1938	0	0	9	1139	32	1
Turn Type	Perm	Perm	Perm	Prot	Prot	NA		Prot	Prot	NA	Perm	Perm
Protected Phases				1	1	6		5	5	2		
Permitted Phases	8	8	8								2	4
Actuated Green, G (s)		36.8	36.8		9.6	80.9			1.5	72.8	72.8	37.2
Effective Green, g (s)		36.8	36.8		9.6	80.9			1.5	72.8	72.8	37.2
Actuated g/C Ratio		0.26	0.26		0.07	0.58			0.01	0.52	0.52	0.27
Clearance Time (s)		7.2	7.2		6.8	6.8			6.8	6.8	6.8	6.8
Vehicle Extension (s)		3.0	3.0		3.0	3.0			3.0	3.0	3.0	3.0
Lane Grp Cap (vph)		465	416		235	2938			18	2644	823	428
v/s Ratio Prot					c0.03	c0.38			0.01	0.22		
v/s Ratio Perm		c0.04	0.01								0.02	0.00
v/c Ratio		0.14	0.02		0.44	0.66			0.50	0.43	0.04	0.00
Uniform Delay, d1		39.4	38.3		62.6	20.2			68.9	20.8	16.5	37.8
Progression Factor		1.00	1.00		1.27	0.50			0.72	1.65	8.39	1.00
Incremental Delay, d2		0.1	0.0		1.2	1.0			16.7	0.4	0.1	0.0
Delay (s)		39.6	38.3		80.7	11.2			66.1	34.6	138.3	37.8
Level of Service		D	D		F	B			E	C	F	D
Approach Delay (s)		39.1			14.7				40.2			37.8
Approach LOS		D			B				D			D

Intersection Summary		
HCM 2000 Control Delay	24.7	HCM 2000 Level of Service C
HCM 2000 Volume to Capacity ratio	0.51	
Actuated Cycle Length (s)	140.0	Sum of lost time (s) 20.8
Intersection Capacity Utilization	80.9%	ICU Level of Service D
Analysis Period (min)	15	

c Critical Lane Group

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to

HCM Signalized Intersection Capacity Analysis
 12: Palm Drive & US 41

Existing PM
 11/02/2017



Movement	NER	NER2
Lane Configurations		
Traffic Volume (vph)	1	1
Future Volume (vph)	1	1
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)		
Lane Util. Factor		
Frt		
Flt Protected		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Peak-hour factor, PHF	0.92	0.92
Adj. Flow (vph)	1	1
RTOR Reduction (vph)	0	0
Lane Group Flow (vph)	0	0
Turn Type		
Protected Phases		
Permitted Phases		
Actuated Green, G (s)		
Effective Green, g (s)		
Actuated g/C Ratio		
Clearance Time (s)		
Vehicle Extension (s)		
Lane Grp Cap (vph)		
v/s Ratio Prot		
v/s Ratio Perm		
v/c Ratio		
Uniform Delay, d1		
Progression Factor		
Incremental Delay, d2		
Delay (s)		
Level of Service		
Approach Delay (s)		
Approach LOS		
Intersection Summary		

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to

HCM Signalized Intersection Capacity Analysis
 15: Espinal Blvd & US 41

Existing PM
 11/02/2017

Movement	SBL	SBR	SBR2	SEU	SEL	SET	SER	NWU	NWL	NWT	NWR	NEL2
Lane Configurations												
Traffic Volume (vph)	142	0	71	18	112	1839	27	2	17	1005	16	7
Future Volume (vph)	142	0	71	18	112	1839	27	2	17	1005	16	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.2		7.2		6.8	6.8	6.8		6.8	6.8	6.8	7.2
Lane Util. Factor	1.00		1.00		1.00	0.91	1.00		1.00	0.91	1.00	1.00
Frt	1.00		0.85		1.00	1.00	0.85		1.00	1.00	0.85	1.00
Flt Protected	0.95		1.00		0.95	1.00	1.00		0.95	1.00	1.00	0.95
Satd. Flow (prot)	1770		1583		1770	5085	1583		1770	5085	1583	1770
Flt Permitted	1.00		1.00		0.22	1.00	1.00		0.08	1.00	1.00	0.95
Satd. Flow (perm)	1863		1583		404	5085	1583		145	5085	1583	1770
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	154	0	77	20	122	1999	29	2	18	1092	17	8
RTOR Reduction (vph)	0	0	68	0	0	0	9	0	0	0	6	0
Lane Group Flow (vph)	154	0	9	0	142	1999	20	0	20	1092	11	8
Turn Type	Perm		Perm	pm+pt	pm+pt	NA	Perm	pm+pt	pm+pt	NA	Perm	Perm
Protected Phases				1	1	6		5	5	2		
Permitted Phases	8		8	6	6		6	2	2		2	4
Actuated Green, G (s)	17.1		17.1		107.9	97.9	97.9		96.3	92.1	92.1	17.1
Effective Green, g (s)	17.1		17.1		107.9	97.9	97.9		96.3	92.1	92.1	17.1
Actuated g/C Ratio	0.12		0.12		0.77	0.70	0.70		0.69	0.66	0.66	0.12
Clearance Time (s)	7.2		7.2		6.8	6.8	6.8		6.8	6.8	6.8	7.2
Vehicle Extension (s)	3.0		3.0		3.0	3.0	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	227		193		408	3555	1106		148	3345	1041	216
v/s Ratio Prot					c0.02	c0.39			0.00	0.21		
v/s Ratio Perm	c0.08		0.01		0.24		0.01		0.09		0.01	0.00
v/c Ratio	0.68		0.05		0.35	0.56	0.02		0.14	0.33	0.01	0.04
Uniform Delay, d1	58.8		54.3		4.8	10.4	6.4		8.0	10.4	8.3	54.2
Progression Factor	1.00		1.00		0.38	0.66	1.00		1.10	0.67	1.00	1.00
Incremental Delay, d2	7.8		0.1		0.4	0.5	0.0		0.4	0.2	0.0	0.1
Delay (s)	66.6		54.4		2.2	7.4	6.4		9.1	7.2	8.3	54.3
Level of Service	E		D		A	A	A		A	A	A	D
Approach Delay (s)	62.5					7.1				7.3		
Approach LOS	E					A				A		

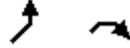
Intersection Summary		
HCM 2000 Control Delay	11.4	HCM 2000 Level of Service
HCM 2000 Volume to Capacity ratio	0.58	B
Actuated Cycle Length (s)	140.0	Sum of lost time (s)
Intersection Capacity Utilization	78.4%	20.8
Analysis Period (min)	15	ICU Level of Service
		D

c Critical Lane Group

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to

HCM Signalized Intersection Capacity Analysis
 15: Espinal Blvd & US 41

Existing PM
 11/02/2017



Movement	NEL	NER
Lane Configurations		
Traffic Volume (vph)	17	24
Future Volume (vph)	17	24
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	7.2	7.2
Lane Util. Factor	1.00	1.00
Frt	1.00	0.85
Flt Protected	0.95	1.00
Satd. Flow (prot)	1770	1583
Flt Permitted	0.95	1.00
Satd. Flow (perm)	1770	1583
Peak-hour factor, PHF	0.92	0.92
Adj. Flow (vph)	18	26
RTOR Reduction (vph)	0	23
Lane Group Flow (vph)	18	3
Turn Type	Perm	Perm
Protected Phases		
Permitted Phases	4	4
Actuated Green, G (s)	17.1	17.1
Effective Green, g (s)	17.1	17.1
Actuated g/C Ratio	0.12	0.12
Clearance Time (s)	7.2	7.2
Vehicle Extension (s)	3.0	3.0
Lane Grp Cap (vph)	216	193
v/s Ratio Prot		
v/s Ratio Perm	0.01	0.00
v/c Ratio	0.08	0.02
Uniform Delay, d1	54.5	54.1
Progression Factor	1.00	1.00
Incremental Delay, d2	0.2	0.0
Delay (s)	54.7	54.1
Level of Service	D	D
Approach Delay (s)	54.3	
Approach LOS	D	
Intersection Summary		

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to

HCM Signalized Intersection Capacity Analysis
 20: Bayshore Drive & US 41

Existing PM
 11/02/2017

Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEU	SEL	SET	SER	NWU	NWL
Lane Configurations												
Traffic Volume (vph)	138	71	277	64	104	31	11	19	1157	148	16	271
Future Volume (vph)	138	71	277	64	104	31	11	19	1157	148	16	271
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.3	7.3	7.3	7.3	7.3			7.6	7.6			7.6
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00			1.00	0.91			0.97
Frt	1.00	1.00	0.85	1.00	0.97			1.00	0.98			1.00
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.95	1.00			0.95
Satd. Flow (prot)	1770	1863	1583	1770	1798			1770	4999			3433
Flt Permitted	0.95	1.00	1.00	0.95	1.00			0.95	1.00			0.95
Satd. Flow (perm)	1770	1863	1583	1770	1798			1770	4999			3433
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	150	77	301	70	113	34	12	21	1258	161	17	295
RTOR Reduction (vph)	0	0	126	0	8	0	0	0	0	0	0	0
Lane Group Flow (vph)	150	77	175	70	139	0	0	33	1419	0	0	312
Turn Type	Prot	NA	Perm	Prot	NA			Prot	Prot	NA		Prot
Protected Phases	7	4		3	8			1	1	6		5
Permitted Phases			4									5
Actuated Green, G (s)	15.3	23.8	23.8	7.6	16.1			5.2	62.0			16.8
Effective Green, g (s)	15.3	23.8	23.8	7.6	16.1			5.2	62.0			16.8
Actuated g/C Ratio	0.11	0.17	0.17	0.05	0.12			0.04	0.44			0.12
Clearance Time (s)	7.3	7.3	7.3	7.3	7.3			7.6	7.6			7.6
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0			3.0	3.0			3.0
Lane Grp Cap (vph)	193	316	269	96	206			65	2213			411
v/s Ratio Prot	c0.08	0.04		0.04	0.08			0.02	c0.28			c0.09
v/s Ratio Perm			c0.11									
v/c Ratio	0.78	0.24	0.65	0.73	0.67			0.51	0.64			0.76
Uniform Delay, d1	60.7	50.3	54.2	65.2	59.4			66.1	30.3			59.6
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00			0.52
Incremental Delay, d2	17.6	0.4	5.3	24.0	8.4			6.1	1.4			6.8
Delay (s)	78.3	50.7	59.5	89.1	67.9			72.3	31.8			37.9
Level of Service	E	D	E	F	E			E	C			D
Approach Delay (s)		63.6			74.7				32.7			
Approach LOS		E			E				C			
Intersection Summary												
HCM 2000 Control Delay			39.8			HCM 2000 Level of Service			D			
HCM 2000 Volume to Capacity ratio			0.70									
Actuated Cycle Length (s)			140.0			Sum of lost time (s)			29.8			
Intersection Capacity Utilization			81.7%			ICU Level of Service			D			
Analysis Period (min)			15									

c Critical Lane Group

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to

HCM Signalized Intersection Capacity Analysis
 20: Bayshore Drive & US 41

Existing PM
 11/02/2017



Movement	NWT	NWR
Lane Configurations	↑↑↑	
Traffic Volume (vph)	792	59
Future Volume (vph)	792	59
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	7.6	
Lane Util. Factor	0.91	
Frt	0.99	
Flt Protected	1.00	
Satd. Flow (prot)	5033	
Flt Permitted	1.00	
Satd. Flow (perm)	5033	
Peak-hour factor, PHF	0.92	0.92
Adj. Flow (vph)	861	64
RTOR Reduction (vph)	0	0
Lane Group Flow (vph)	925	0
Turn Type	NA	
Protected Phases	2	
Permitted Phases		
Actuated Green, G (s)	73.6	
Effective Green, g (s)	73.6	
Actuated g/C Ratio	0.53	
Clearance Time (s)	7.6	
Vehicle Extension (s)	3.0	
Lane Grp Cap (vph)	2645	
v/s Ratio Prot	0.18	
v/s Ratio Perm		
v/c Ratio	0.35	
Uniform Delay, d1	19.3	
Progression Factor	1.53	
Incremental Delay, d2	0.3	
Delay (s)	29.7	
Level of Service	C	
Approach Delay (s)	31.8	
Approach LOS	C	
Intersection Summary		

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to

HCM Signalized Intersection Capacity Analysis
 23: Commercial Drive & US 41/US 41-1

Existing PM
 11/02/2017



Movement	SEU	SEL	SET	SER	NWU	NWL	NWT	NWR	NEL	NET	NER	SWL
Lane Configurations		↔	↑↑↑			↔	↑↑↑		↔	↑	↔	↔
Traffic Volume (vph)	3	69	1297	25	14	17	892	31	26	25	28	87
Future Volume (vph)	3	69	1297	25	14	17	892	31	26	25	28	87
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.8	7.8			7.8	7.8		8.0	8.0		8.0
Lane Util. Factor		1.00	0.91			1.00	0.91		1.00	1.00		1.00
Frt		1.00	1.00			1.00	0.99		1.00	0.92		1.00
Flt Protected		0.95	1.00			0.95	1.00		0.95	1.00		0.95
Satd. Flow (prot)		1770	5071			1770	5059		1770	1716		1770
Flt Permitted		0.25	1.00			0.15	1.00		0.95	1.00		0.95
Satd. Flow (perm)		457	5071			275	5059		1770	1716		1770
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	3	75	1410	27	15	18	970	34	28	27	30	95
RTOR Reduction (vph)	0	0	1	0	0	0	2	0	0	25	0	0
Lane Group Flow (vph)	0	78	1436	0	0	33	1002	0	28	32	0	95
Turn Type	Prot	pm+pt	NA		Prot	pm+pt	NA		Prot	NA		Prot
Protected Phases	1	1	6		5	5	2		7	4		3
Permitted Phases		6				2						
Actuated Green, G (s)		108.2	100.6			103.6	98.3		7.1	9.0		13.5
Effective Green, g (s)		108.2	100.6			103.6	98.3		7.1	9.0		13.5
Actuated g/C Ratio		0.68	0.63			0.65	0.61		0.04	0.06		0.08
Clearance Time (s)		7.8	7.8			7.8	7.8		8.0	8.0		8.0
Vehicle Extension (s)		3.0	3.0			3.0	3.0		3.0	3.0		3.0
Lane Grp Cap (vph)		371	3188			227	3108		78	96		149
v/s Ratio Prot		c0.01	c0.28			0.00	0.20		0.02	c0.02		0.05
v/s Ratio Perm		0.13				0.09						
v/c Ratio		0.21	0.45			0.15	0.32		0.36	0.33		0.64
Uniform Delay, d1		9.2	15.4			10.9	14.8		74.2	72.6		70.9
Progression Factor		1.00	1.00			1.00	1.00		1.00	1.00		1.00
Incremental Delay, d2		0.3	0.5			0.3	0.3		2.8	2.0		8.6
Delay (s)		9.5	15.8			11.2	15.1		77.1	74.6		79.5
Level of Service		A	B			B	B		E	E		E
Approach Delay (s)			15.5				15.0			75.4		
Approach LOS			B				B			E		

Intersection Summary			
HCM 2000 Control Delay	22.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	160.0	Sum of lost time (s)	31.6
Intersection Capacity Utilization	68.1%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to

HCM Signalized Intersection Capacity Analysis
 23: Commercial Drive & US 41/US 41-1

Existing PM
 11/02/2017



Movement	SWT	SWR
Lane Configurations	↔	
Traffic Volume (vph)	59	77
Future Volume (vph)	59	77
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	8.0	
Lane Util. Factor	1.00	
Frt	0.91	
Flt Protected	1.00	
Satd. Flow (prot)	1704	
Flt Permitted	1.00	
Satd. Flow (perm)	1704	
Peak-hour factor, PHF	0.92	0.92
Adj. Flow (vph)	64	84
RTOR Reduction (vph)	29	0
Lane Group Flow (vph)	119	0
Turn Type	NA	
Protected Phases	8	
Permitted Phases		
Actuated Green, G (s)	15.4	
Effective Green, g (s)	15.4	
Actuated g/C Ratio	0.10	
Clearance Time (s)	8.0	
Vehicle Extension (s)	3.0	
Lane Grp Cap (vph)	164	
v/s Ratio Prot	c0.07	
v/s Ratio Perm		
v/c Ratio	0.73	
Uniform Delay, d1	70.3	
Progression Factor	1.00	
Incremental Delay, d2	14.8	
Delay (s)	85.0	
Level of Service	F	
Approach Delay (s)	82.9	
Approach LOS	F	
Intersection Summary		

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to

Arterial Level of Service

Existing PM

11/02/2017

Arterial Level of Service: NW US 41

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Guilford Road	II	45	18.8	16.0	34.8	0.17	17.8	D
Palm Drive	II	45	35.8	35.1	70.9	0.37	18.9	D
Espinal Blvd	II	45	24.5	7.8	32.3	0.24	26.3	C
Airport Pulling Road	II	45	22.9	18.0	40.9	0.21	18.5	D
Bayshore Drive	II	45	31.8	30.3	62.1	0.32	18.6	D
Commercial Drive	II	45	49.3	14.6	63.9	0.62	34.8	B
Total	II		183.1	121.8	304.9	1.93	22.8	C

Arterial Level of Service: SE US 41

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Bayshore Drive	II	45	49.3	33.1	82.4	0.62	27.0	C
Airport Pulling Road	II	45	31.8	12.7	44.5	0.32	26.0	C
Espinal Blvd	II	45	22.9	7.5	30.4	0.21	24.9	C
Palm Drive	II	45	24.5	9.6	34.1	0.24	24.9	C
Guilford Road	II	45	35.8	3.2	39.0	0.37	34.4	B
Total	II		164.3	66.1	230.4	1.76	27.5	C

Synchro 9 Report

HCM Signalized Intersection Capacity Analysis
5: Airport Pulling Road & US 41

Build AM
11/02/2017

Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEU	SEL	SET	SER	NWL	NWT	
Lane Configurations													
Traffic Volume (vph)	1	0	0	451	2	181	1	313	558	0	0	1279	
Future Volume (vph)	1	0	0	451	2	181	1	313	558	0	0	1279	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	7.2			7.2	7.2	7.2		7.2	7.2			7.2	
Lane Util. Factor	1.00			0.91	0.91	1.00		0.97	0.91			0.91	
Frt	1.00			1.00	1.00	0.85		1.00	1.00			1.00	
Flt Protected	0.95			0.95	0.95	1.00		0.95	1.00			1.00	
Satd. Flow (prot)	1770			3221	1615	1583		3433	5085			5085	
Flt Permitted	0.95			0.95	0.95	1.00		0.95	1.00			1.00	
Satd. Flow (perm)	1770			3221	1615	1583		3433	5085			5085	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	1	0	0	490	2	197	1	340	607	0	0	1390	
RTOR Reduction (vph)	0	0	0	0	0	167	0	0	0	0	0	0	
Lane Group Flow (vph)	1	0	0	328	164	30	0	341	607	0	0	1390	
Turn Type	Split			Split	NA	Prot	Prot	Prot	NA		Prot	NA	
Protected Phases	4	4		8	8	8	1	1	6		5	2	
Permitted Phases													
Actuated Green, G (s)	1.4			21.3	21.3	21.3		19.0	95.7			69.5	
Effective Green, g (s)	1.4			21.3	21.3	21.3		19.0	95.7			69.5	
Actuated g/C Ratio	0.01			0.15	0.15	0.15		0.14	0.68			0.50	
Clearance Time (s)	7.2			7.2	7.2	7.2		7.2	7.2			7.2	
Vehicle Extension (s)	3.0			3.0	3.0	3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)	17			490	245	240		465	3475			2524	
v/s Ratio Prot	0.00			c0.10	0.10	0.02		c0.10	0.12			0.27	
v/s Ratio Perm													
v/c Ratio	0.06			0.67	0.67	0.12		0.73	0.17			0.55	
Uniform Delay, d1	68.6			56.0	56.0	51.3		58.1	8.0			24.4	
Progression Factor	1.00			1.00	1.00	1.00		0.76	1.85			0.49	
Incremental Delay, d2	1.5			3.5	6.8	0.2		5.7	0.1			0.8	
Delay (s)	70.1			59.5	62.8	51.5		50.1	14.9			12.7	
Level of Service	E			E	E	D		D	B			B	
Approach Delay (s)		70.1			58.0				27.5			12.9	
Approach LOS		E			E				C			B	
Intersection Summary													
HCM 2000 Control Delay			25.4		HCM 2000 Level of Service				C				
HCM 2000 Volume to Capacity ratio			0.72										
Actuated Cycle Length (s)			140.0		Sum of lost time (s)				28.8				
Intersection Capacity Utilization			74.7%		ICU Level of Service				D				
Analysis Period (min)			15										

c Critical Lane Group

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to

HCM Signalized Intersection Capacity Analysis
5: Airport Pulling Road & US 41

Build AM
11/02/2017



Movement	NWR
Lane Configurations	T
Traffic Volume (vph)	541
Future Volume (vph)	541
Ideal Flow (vphpl)	1900
Total Lost time (s)	7.2
Lane Util. Factor	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1583
Flt Permitted	1.00
Satd. Flow (perm)	1583
Peak-hour factor, PHF	0.92
Adj. Flow (vph)	588
RTOR Reduction (vph)	0
Lane Group Flow (vph)	588
Turn Type	custom
Protected Phases	2
Permitted Phases	2 4
Actuated Green, G (s)	70.9
Effective Green, g (s)	70.9
Actuated g/C Ratio	0.51
Clearance Time (s)	7.2
Vehicle Extension (s)	3.0
Lane Grp Cap (vph)	883
v/s Ratio Prot	c0.33
v/s Ratio Perm	0.04
v/c Ratio	0.67
Uniform Delay, d1	25.7
Progression Factor	0.46
Incremental Delay, d2	1.7
Delay (s)	13.5
Level of Service	B
Approach Delay (s)	
Approach LOS	
Intersection Summary	

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to

HCM Signalized Intersection Capacity Analysis
 9: Guilford Road & US 41

Build AM
 11/02/2017

Movement	SEU	SEL	SET	SER	NWU	NWL	NWT	NWR	NEL	NET	NER	SWL
Lane Configurations												
Traffic Volume (vph)	9	14	859	2	8	9	2301	31	26	0	8	15
Future Volume (vph)	9	14	859	2	8	9	2301	31	26	0	8	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.8	6.8			6.8	6.8			7.1	7.1	
Lane Util. Factor		1.00	0.91			1.00	0.91			1.00	1.00	
Flt		1.00	1.00			1.00	1.00			1.00	0.85	
Flt Protected		0.95	1.00			0.95	1.00			0.95	1.00	
Satd. Flow (prot)		1770	5084			1770	5075			1770	1583	
Flt Permitted		0.04	1.00			0.29	1.00			0.75	1.00	
Satd. Flow (perm)		74	5084			546	5075			1392	1583	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	10	15	934	2	9	10	2501	34	28	0	9	16
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	9	0
Lane Group Flow (vph)	0	25	936	0	0	19	2535	0	0	28	0	0
Turn Type	pm+pt	pm+pt	NA		pm+pt	pm+pt	NA		Perm	NA	Perm	Perm
Protected Phases	1	1	6		5	5	2			4		
Permitted Phases	6	6			2	2			4		4	8
Actuated Green, G (s)		114.1	109.9			112.7	109.2			5.9	5.9	
Effective Green, g (s)		114.1	109.9			112.7	109.2			5.9	5.9	
Actuated g/C Ratio		0.81	0.79			0.81	0.78			0.04	0.04	
Clearance Time (s)		6.8	6.8			6.8	6.8			7.1	7.1	
Vehicle Extension (s)		3.0	3.0			3.0	3.0			3.0	3.0	
Lane Grp Cap (vph)		111	3990			470	3958			58	66	
v/s Ratio Prot		c0.01	0.18			0.00	c0.50					
v/s Ratio Perm		0.18				0.03				c0.02	0.00	
v/c Ratio		0.23	0.23			0.04	0.64			0.48	0.01	
Uniform Delay, d1		5.9	4.0			2.7	6.8			65.6	64.2	
Progression Factor		6.19	0.45			1.00	1.00			1.00	1.00	
Incremental Delay, d2		1.0	0.1			0.0	0.8			6.2	0.0	
Delay (s)		37.3	1.9			2.7	7.6			71.8	64.3	
Level of Service		D	A			A	A			E	E	
Approach Delay (s)			2.9				7.5			69.9		
Approach LOS			A				A			E		

Intersection Summary		
HCM 2000 Control Delay	7.4	HCM 2000 Level of Service
HCM 2000 Volume to Capacity ratio	0.62	A
Actuated Cycle Length (s)	140.0	Sum of lost time (s)
Intersection Capacity Utilization	74.3%	20.7
Analysis Period (min)	15	ICU Level of Service
		D

c Critical Lane Group

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to

HCM Signalized Intersection Capacity Analysis
 9: Guilford Road & US 41

Build AM
 11/02/2017



Movement	SWT	SWR
Lane Configurations	↔	↔
Traffic Volume (vph)	0	9
Future Volume (vph)	0	9
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	7.1	7.1
Lane Util. Factor	1.00	1.00
Frt	1.00	0.85
Flt Protected	0.95	1.00
Satd. Flow (prot)	1770	1583
Flt Permitted	0.74	1.00
Satd. Flow (perm)	1377	1583
Peak-hour factor, PHF	0.92	0.92
Adj. Flow (vph)	0	10
RTOR Reduction (vph)	0	10
Lane Group Flow (vph)	16	0
Turn Type	NA	Perm
Protected Phases	8	
Permitted Phases		8
Actuated Green, G (s)	5.9	5.9
Effective Green, g (s)	5.9	5.9
Actuated g/C Ratio	0.04	0.04
Clearance Time (s)	7.1	7.1
Vehicle Extension (s)	3.0	3.0
Lane Grp Cap (vph)	58	66
v/s Ratio Prot		
v/s Ratio Perm	0.01	0.00
v/c Ratio	0.28	0.01
Uniform Delay, d1	65.0	64.2
Progression Factor	1.00	1.00
Incremental Delay, d2	2.6	0.0
Delay (s)	67.6	64.3
Level of Service	E	E
Approach Delay (s)	66.3	
Approach LOS	E	
Intersection Summary		

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to

HCM Signalized Intersection Capacity Analysis
12: Palm Drive & US 41

Build AM
11/02/2017



Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	57	843	0	2	1867	26	0	3	0	0	29	36
Future Volume (vph)	57	843	0	2	1867	26	0	3	0	0	29	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.8	6.8		6.8	6.8	6.8		6.8			7.2	7.2
Lane Util. Factor	0.97	0.91		1.00	0.91	1.00		1.00			1.00	1.00
Frt	1.00	1.00		1.00	1.00	0.85		1.00			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00		1.00			1.00	1.00
Satd. Flow (prot)	3433	5085		1770	5085	1583		1863			1863	1583
Flt Permitted	0.95	1.00		0.95	1.00	1.00		1.00			1.00	1.00
Satd. Flow (perm)	3433	5085		1770	5085	1583		1863			1863	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	62	916	0	2	2029	28	0	3	0	0	32	39
RTOR Reduction (vph)	0	0	0	0	0	7	0	0	0	0	0	37
Lane Group Flow (vph)	62	916	0	2	2029	21	0	3	0	0	32	2
Turn Type	Prot	NA		Prot	NA	Perm		NA			NA	Perm
Protected Phases	1	6		5	2			4			8	
Permitted Phases						2	4			8		8
Actuated Green, G (s)	6.8	111.0		1.4	105.6	105.6		7.2			6.8	6.8
Effective Green, g (s)	6.8	111.0		1.4	105.6	105.6		7.2			6.8	6.8
Actuated g/C Ratio	0.05	0.79		0.01	0.75	0.75		0.05			0.05	0.05
Clearance Time (s)	6.8	6.8		6.8	6.8	6.8		6.8			7.2	7.2
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0		3.0			3.0	3.0
Lane Grp Cap (vph)	166	4031		17	3835	1194		95			90	76
v/s Ratio Prot	c0.02	c0.18		0.00	c0.40			0.00			c0.02	
v/s Ratio Perm						0.01						0.00
v/c Ratio	0.37	0.23		0.12	0.53	0.02		0.03			0.36	0.02
Uniform Delay, d1	64.5	3.7		68.7	7.0	4.3		63.1			64.5	63.4
Progression Factor	0.88	1.08		1.22	1.92	1.00		1.00			1.00	1.00
Incremental Delay, d2	1.4	0.1		2.5	0.4	0.0		0.1			2.4	0.1
Delay (s)	58.2	4.1		86.2	14.0	4.3		63.2			66.9	63.6
Level of Service	E	A		F	B	A		E			E	E
Approach Delay (s)		7.5			13.9			63.2			65.1	
Approach LOS		A			B			E			E	

Intersection Summary		
HCM 2000 Control Delay	13.1	HCM 2000 Level of Service
HCM 2000 Volume to Capacity ratio	0.51	B
Actuated Cycle Length (s)	140.0	Sum of lost time (s)
Intersection Capacity Utilization	65.1%	20.8
Analysis Period (min)	15	ICU Level of Service
		C

c Critical Lane Group

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to

HCM Signalized Intersection Capacity Analysis
15: Espinal Blvd & US 41

Build AM
11/02/2017

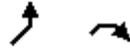
Movement	SBL	SBR	SBR2	SEU	SEL	SET	SER	NWU	NWL	NWT	NWR	NEL2
Lane Configurations												
Traffic Volume (vph)	15	0	15	25	62	754	44	1	57	1698	96	48
Future Volume (vph)	15	0	15	25	62	754	44	1	57	1698	96	48
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.2		7.2		6.8	6.8	6.8		6.8	6.8	6.8	7.2
Lane Util. Factor	1.00		1.00		1.00	0.91	1.00		1.00	0.91	1.00	1.00
Frt	1.00		0.85		1.00	1.00	0.85		1.00	1.00	0.85	1.00
Flt Protected	0.95		1.00		0.95	1.00	1.00		0.95	1.00	1.00	0.95
Satd. Flow (prot)	1770		1583		1770	5085	1583		1770	5085	1583	1770
Flt Permitted	1.00		1.00		0.08	1.00	1.00		0.33	1.00	1.00	0.95
Satd. Flow (perm)	1863		1583		158	5085	1583		616	5085	1583	1770
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	16	0	16	27	67	820	48	1	62	1846	104	52
RTOR Reduction (vph)	0	0	14	0	0	0	15	0	0	0	28	0
Lane Group Flow (vph)	16	0	2	0	94	820	33	0	63	1846	76	52
Turn Type	Perm		Perm	pm+pt	pm+pt	NA	Perm	pm+pt	pm+pt	NA	Perm	Perm
Protected Phases				1	1	6		5	5	2		
Permitted Phases	8		8	6	6		6	2	2		2	4
Actuated Green, G (s)	15.5		15.5		106.8	97.5	97.5		100.6	94.4	94.4	15.5
Effective Green, g (s)	15.5		15.5		106.8	97.5	97.5		100.6	94.4	94.4	15.5
Actuated g/C Ratio	0.11		0.11		0.76	0.70	0.70		0.72	0.67	0.67	0.11
Clearance Time (s)	7.2		7.2		6.8	6.8	6.8		6.8	6.8	6.8	7.2
Vehicle Extension (s)	3.0		3.0		3.0	3.0	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	206		175		227	3541	1102		493	3428	1067	195
v/s Ratio Prot					c0.03	0.16			0.01	c0.36		
v/s Ratio Perm	0.01		0.00		c0.29		0.02		0.09		0.05	c0.03
v/c Ratio	0.08		0.01		0.41	0.23	0.03		0.13	0.54	0.07	0.27
Uniform Delay, d1	55.8		55.4		7.8	7.7	6.6		5.7	11.7	7.8	57.0
Progression Factor	1.00		1.00		1.95	0.84	6.20		0.44	0.80	1.06	1.00
Incremental Delay, d2	0.2		0.0		1.2	0.1	0.0		0.1	0.5	0.1	0.7
Delay (s)	56.0		55.4		16.5	6.6	40.9		2.7	9.9	8.4	57.8
Level of Service	E		E		B	A	D		A	A	A	E
Approach Delay (s)	55.7					9.3				9.6		
Approach LOS	E					A				A		
Intersection Summary												
HCM 2000 Control Delay			11.0			HCM 2000 Level of Service						B
HCM 2000 Volume to Capacity ratio			0.50									
Actuated Cycle Length (s)			140.0			Sum of lost time (s)						20.8
Intersection Capacity Utilization			73.6%			ICU Level of Service						D
Analysis Period (min)			15									

c Critical Lane Group

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to

HCM Signalized Intersection Capacity Analysis
 15: Espinal Blvd & US 41

Build AM
 11/02/2017



Movement	NEL	NER
Lane Configurations		
Traffic Volume (vph)	1	11
Future Volume (vph)	1	11
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	7.2	7.2
Lane Util. Factor	1.00	1.00
Frt	1.00	0.85
Flt Protected	0.95	1.00
Satd. Flow (prot)	1770	1583
Flt Permitted	0.95	1.00
Satd. Flow (perm)	1770	1583
Peak-hour factor, PHF	0.92	0.92
Adj. Flow (vph)	1	12
RTOR Reduction (vph)	0	11
Lane Group Flow (vph)	1	1
Turn Type	Perm	Perm
Protected Phases		
Permitted Phases	4	4
Actuated Green, G (s)	15.5	15.5
Effective Green, g (s)	15.5	15.5
Actuated g/C Ratio	0.11	0.11
Clearance Time (s)	7.2	7.2
Vehicle Extension (s)	3.0	3.0
Lane Grp Cap (vph)	195	175
v/s Ratio Prot		
v/s Ratio Perm	0.00	0.00
v/c Ratio	0.01	0.01
Uniform Delay, d1	55.4	55.4
Progression Factor	1.00	1.00
Incremental Delay, d2	0.0	0.0
Delay (s)	55.4	55.4
Level of Service	E	E
Approach Delay (s)	57.3	
Approach LOS	E	
Intersection Summary		

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to

HCM Signalized Intersection Capacity Analysis
 20: Bayshore Drive & US 41

Build AM
 11/02/2017

												
Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEU	SEL	SET	SER	NWU	NWL
Lane Configurations												
Traffic Volume (vph)	244	58	214	27	64	18	19	10	538	76	6	201
Future Volume (vph)	244	58	214	27	64	18	19	10	538	76	6	201
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.3	7.3	7.3	7.3	7.3			7.6	7.6			7.6
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00			1.00	0.91			0.97
Frt	1.00	1.00	0.85	1.00	0.97			1.00	0.98			1.00
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.95	1.00			0.95
Satd. Flow (prot)	1770	1863	1583	1770	1801			1770	4991			3433
Flt Permitted	0.95	1.00	1.00	0.95	1.00			0.95	1.00			0.95
Satd. Flow (perm)	1770	1863	1583	1770	1801			1770	4991			3433
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	265	63	233	29	70	20	21	11	585	83	7	218
RTOR Reduction (vph)	0	0	178	0	8	0	0	0	0	0	0	0
Lane Group Flow (vph)	265	63	55	29	82	0	0	32	668	0	0	225
Turn Type	Prot	NA	Perm	Prot	NA			Prot	Prot	NA		Prot
Protected Phases	7	4		3	8			1	1	6		5
Permitted Phases			4									5
Actuated Green, G (s)	23.9	33.1	33.1	5.4	14.6			5.6	57.2			14.5
Effective Green, g (s)	23.9	33.1	33.1	5.4	14.6			5.6	57.2			14.5
Actuated g/C Ratio	0.17	0.24	0.24	0.04	0.10			0.04	0.41			0.10
Clearance Time (s)	7.3	7.3	7.3	7.3	7.3			7.6	7.6			7.6
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0			3.0	3.0			3.0
Lane Grp Cap (vph)	302	440	374	68	187			70	2039			355
v/s Ratio Prot	c0.15	0.03		0.02	c0.05			0.02	0.13			c0.07
v/s Ratio Perm			0.03									
v/c Ratio	0.88	0.14	0.15	0.43	0.44			0.46	0.33			0.63
Uniform Delay, d1	56.6	42.2	42.3	65.8	58.9			65.7	28.3			60.2
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00			0.80
Incremental Delay, d2	23.7	0.2	0.2	4.3	1.6			4.7	0.4			3.3
Delay (s)	80.3	42.4	42.5	70.0	60.5			70.4	28.7			51.3
Level of Service	F	D	D	E	E			E	C			D
Approach Delay (s)		60.3			62.8				30.6			
Approach LOS		E			E				C			
Intersection Summary												
HCM 2000 Control Delay			36.3	HCM 2000 Level of Service				D				
HCM 2000 Volume to Capacity ratio			0.65									
Actuated Cycle Length (s)			140.0	Sum of lost time (s)				29.8				
Intersection Capacity Utilization			69.2%	ICU Level of Service				C				
Analysis Period (min)			15									
c Critical Lane Group												

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to

HCM Signalized Intersection Capacity Analysis
 20: Bayshore Drive & US 41

Build AM
 11/02/2017



Movement	NWT	NWR
Lane Configurations	↑↑↑	
Traffic Volume (vph)	1202	55
Future Volume (vph)	1202	55
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	7.6	
Lane Util. Factor	0.91	
Frt	0.99	
Flt Protected	1.00	
Satd. Flow (prot)	5052	
Flt Permitted	1.00	
Satd. Flow (perm)	5052	
Peak-hour factor, PHF	0.92	0.92
Adj. Flow (vph)	1307	60
RTOR Reduction (vph)	0	0
Lane Group Flow (vph)	1367	0
Turn Type	NA	
Protected Phases	2	
Permitted Phases		
Actuated Green, G (s)	66.1	
Effective Green, g (s)	66.1	
Actuated g/C Ratio	0.47	
Clearance Time (s)	7.6	
Vehicle Extension (s)	3.0	
Lane Grp Cap (vph)	2385	
v/s Ratio Prot	c0.27	
v/s Ratio Perm		
v/c Ratio	0.57	
Uniform Delay, d1	26.7	
Progression Factor	0.89	
Incremental Delay, d2	0.9	
Delay (s)	24.6	
Level of Service	C	
Approach Delay (s)	28.4	
Approach LOS	C	
Intersection Summary		

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to

HCM Signalized Intersection Capacity Analysis
 23: Commercial Drive & US 41/US 41_1

Build AM
 11/02/2017



Movement	SEU	SEL	SET	SER	NWU	NWL	NWT	NWR	NEL	NET	NER	SWL
Lane Configurations		↔	↔↔↔			↔	↔↔↔		↔	↔		↔
Traffic Volume (vph)	5	31	496	5	1	32	1281	32	34	43	12	45
Future Volume (vph)	5	31	496	5	1	32	1281	32	34	43	12	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.8	7.8			7.8	7.8		8.0	8.0		8.0
Lane Util. Factor		1.00	0.91			1.00	0.91		1.00	1.00		1.00
Frt		1.00	1.00			1.00	1.00		1.00	0.97		1.00
Flt Protected		0.95	1.00			0.95	1.00		0.95	1.00		0.95
Satd. Flow (prot)		1770	5078			1770	5067		1770	1802		1770
Flt Permitted		0.13	1.00			0.44	1.00		0.95	1.00		0.95
Satd. Flow (perm)		242	5078			817	5067		1770	1802		1770
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	34	539	5	1	35	1392	35	37	47	13	49
RTOR Reduction (vph)	0	0	0	0	0	0	2	0	0	9	0	0
Lane Group Flow (vph)	0	39	544	0	0	36	1425	0	37	51	0	49
Turn Type	pm+pt	pm+pt	NA		pm+pt	pm+pt	NA		Prot	NA		Prot
Protected Phases	1	1	6		5	5	2		7	4		3
Permitted Phases	6	6			2	2						
Actuated Green, G (s)		57.0	52.8			56.8	52.7		5.5	9.5		7.0
Effective Green, g (s)		57.0	52.8			56.8	52.7		5.5	9.5		7.0
Actuated g/C Ratio		0.54	0.50			0.54	0.50		0.05	0.09		0.07
Clearance Time (s)		7.8	7.8			7.8	7.8		8.0	8.0		8.0
Vehicle Extension (s)		3.0	3.0			3.0	3.0		3.0	3.0		3.0
Lane Grp Cap (vph)		192	2553			479	2543		92	163		118
v/s Ratio Prot		c0.01	0.11			0.00	c0.28		0.02	c0.03		0.03
v/s Ratio Perm		0.10				0.04						
v/c Ratio		0.20	0.21			0.08	0.56		0.40	0.31		0.42
Uniform Delay, d1		12.2	14.5			11.3	18.1		48.2	44.7		47.0
Progression Factor		1.00	1.00			1.00	1.00		1.00	1.00		1.00
Incremental Delay, d2		0.5	0.2			0.1	0.9		2.9	1.1		2.4
Delay (s)		12.8	14.7			11.4	19.0		51.0	45.8		49.4
Level of Service		B	B			B	B		D	D		D
Approach Delay (s)			14.6				18.8			47.8		
Approach LOS			B				B			D		

Intersection Summary			
HCM 2000 Control Delay	21.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	105.0	Sum of lost time (s)	31.6
Intersection Capacity Utilization	61.9%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to

HCM Signalized Intersection Capacity Analysis
 23: Commercial Drive & US 41/US 41_1

Build AM
 11/02/2017



Movement	SWT	SWR
Lane Configurations	↔	
Traffic Volume (vph)	42	107
Future Volume (vph)	42	107
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	8.0	
Lane Util. Factor	1.00	
Frt	0.89	
Flt Protected	1.00	
Satd. Flow (prot)	1663	
Flt Permitted	1.00	
Satd. Flow (perm)	1663	
Peak-hour factor, PHF	0.92	0.92
Adj. Flow (vph)	46	116
RTOR Reduction (vph)	85	0
Lane Group Flow (vph)	77	0
Turn Type	NA	
Protected Phases	8	
Permitted Phases		
Actuated Green, G (s)	11.0	
Effective Green, g (s)	11.0	
Actuated g/C Ratio	0.10	
Clearance Time (s)	8.0	
Vehicle Extension (s)	3.0	
Lane Grp Cap (vph)	174	
v/s Ratio Prot	c0.05	
v/s Ratio Perm		
v/c Ratio	0.44	
Uniform Delay, d1	44.1	
Progression Factor	1.00	
Incremental Delay, d2	1.8	
Delay (s)	45.9	
Level of Service	D	
Approach Delay (s)	46.7	
Approach LOS	D	
Intersection Summary		

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to

Arterial Level of Service

Build AM

11/02/2017

Arterial Level of Service: NW US 41

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Guilford Road	II	45	18.8	7.5	26.3	0.17	23.6	C
Palm Drive	II	45	35.8	14.6	50.4	0.37	26.6	C
Espinal Blvd	II	45	24.5	12.9	37.4	0.24	22.7	C
Airport Pulling Road	II	45	22.9	11.8	34.7	0.21	21.8	D
Bayshore Drive	II	45	31.8	22.8	54.6	0.32	21.2	D
Commercial Drive	II	45	49.3	17.4	66.7	0.62	33.3	B
Total	II		183.1	87.0	270.1	1.93	25.7	C

Arterial Level of Service: SE US 41

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Bayshore Drive	II	45	49.3	28.1	77.4	0.62	28.7	B
Airport Pulling Road	II	45	31.8	13.3	45.1	0.32	25.7	C
Espinal Blvd	II	45	22.9	9.0	31.9	0.21	23.7	C
Palm Drive	II	45	24.5	3.2	27.7	0.24	30.6	B
Guilford Road	II	45	35.8	1.9	37.7	0.37	35.6	A
Total	II		164.3	55.5	219.8	1.76	28.8	B

Synchro 9 Report

HCM Signalized Intersection Capacity Analysis
5: Airport Pulling Road & US 41

Build PM
11/02/2017

Movement	NBL	NBT	NBR	SBU	SBL	SBT	SBR	SEU	SEL	SET	SER	NWU	
Lane Configurations													
Traffic Volume (vph)	2	5	3	2	783	14	273	17	333	1377	0	2	
Future Volume (vph)	2	5	3	2	783	14	273	17	333	1377	0	2	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	7.2	7.2			7.2	7.2	7.2		7.2	7.2			
Lane Util. Factor	1.00	1.00			0.91	0.91	1.00		0.97	0.91			
Frt	1.00	0.94			1.00	1.00	0.85		1.00	1.00			
Flt Protected	0.95	1.00			0.95	0.95	1.00		0.95	1.00			
Satd. Flow (prot)	1770	1758			3221	1618	1583		3433	5085			
Flt Permitted	0.95	1.00			0.95	0.95	1.00		0.95	1.00			
Satd. Flow (perm)	1770	1758			3221	1618	1583		3433	5085			
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	2	5	3	2	851	15	297	18	362	1497	0	2	
RTOR Reduction (vph)	0	3	0	0	0	0	230	0	0	0	0	0	
Lane Group Flow (vph)	2	5	0	0	581	287	67	0	380	1497	0	0	
Turn Type	Split	NA		Split	Split	NA	Prot	Prot	Prot	NA		Prot	
Protected Phases	4	4		8	8	8	8	1	1	6		5	
Permitted Phases													
Actuated Green, G (s)	3.9	3.9			31.7	31.7	31.7		18.7	74.2			
Effective Green, g (s)	3.9	3.9			31.7	31.7	31.7		18.7	74.2			
Actuated g/C Ratio	0.03	0.03			0.23	0.23	0.23		0.13	0.53			
Clearance Time (s)	7.2	7.2			7.2	7.2	7.2		7.2	7.2			
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0		3.0	3.0			
Lane Grp Cap (vph)	49	48			729	366	358		458	2695			
v/s Ratio Prot	0.00	0.00			c0.18	0.18	0.04		c0.11	0.29			
v/s Ratio Perm													
v/c Ratio	0.04	0.11			0.80	0.78	0.19		0.83	0.56			
Uniform Delay, d1	66.2	66.4			51.1	50.9	43.7		59.1	21.9			
Progression Factor	1.00	1.00			1.00	1.00	1.00		0.89	0.66			
Incremental Delay, d2	0.3	1.0			6.1	10.5	0.3		10.1	0.7			
Delay (s)	66.6	67.3			57.2	61.4	44.0		62.5	15.2			
Level of Service	E	E			E	E	D		E	B			
Approach Delay (s)		67.2				54.9				24.8			
Approach LOS		E				D				C			
Intersection Summary													
HCM 2000 Control Delay			31.9		HCM 2000 Level of Service					C			
HCM 2000 Volume to Capacity ratio			0.90										
Actuated Cycle Length (s)			140.0		Sum of lost time (s)					28.8			
Intersection Capacity Utilization			88.1%		ICU Level of Service					E			
Analysis Period (min)			15										
c Critical Lane Group													

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to

HCM Signalized Intersection Capacity Analysis
5: Airport Pulling Road & US 41

Build PM
11/02/2017



Movement	NWL	NWT	NWR
Lane Configurations			
Traffic Volume (vph)	0	1113	622
Future Volume (vph)	0	1113	622
Ideal Flow (vphpl)	1900	1900	1900
Total Lost time (s)	7.2	7.2	7.2
Lane Util. Factor	1.00	0.91	1.00
Frt	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00
Satd. Flow (prot)	1770	5085	1583
Flt Permitted	0.95	1.00	1.00
Satd. Flow (perm)	1770	5085	1583
Peak-hour factor, PHF	0.92	0.92	0.92
Adj. Flow (vph)	0	1210	676
RTOR Reduction (vph)	0	0	0
Lane Group Flow (vph)	2	1210	676
Turn Type	Prot	NA	custom
Protected Phases	5	2	2
Permitted Phases			2 4
Actuated Green, G (s)	1.4	56.9	60.8
Effective Green, g (s)	1.4	56.9	60.8
Actuated g/C Ratio	0.01	0.41	0.43
Clearance Time (s)	7.2	7.2	7.2
Vehicle Extension (s)	3.0	3.0	3.0
Lane Grp Cap (vph)	17	2066	768
v/s Ratio Prot	0.00	0.24	c0.36
v/s Ratio Perm			0.07
v/c Ratio	0.12	0.59	0.88
Uniform Delay, d1	68.7	32.4	36.3
Progression Factor	1.32	0.54	0.64
Incremental Delay, d2	3.1	1.2	11.4
Delay (s)	93.6	18.8	34.8
Level of Service	F	B	C
Approach Delay (s)		24.6	
Approach LOS		C	
Intersection Summary			

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to

HCM Signalized Intersection Capacity Analysis
 9: Guilford Road & US 41

Build PM
 11/02/2017



Movement	SEU	SEL	SET	SER	NWU	NWL	NWT	NWR	NEL	NET	NER	SWL
Lane Configurations		↔	↑↑↑			↔	↑↑↑			↑	↗	
Traffic Volume (vph)	38	44	1920	18	6	12	1754	51	16	1	10	123
Future Volume (vph)	38	44	1920	18	6	12	1754	51	16	1	10	123
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.8	6.8			6.8	6.8			7.1	7.1	
Lane Util. Factor		1.00	0.91			1.00	0.91			1.00	1.00	
Frt		1.00	1.00			1.00	1.00			1.00	0.85	
Flt Protected		0.95	1.00			0.95	1.00			0.95	1.00	
Satd. Flow (prot)		1770	5078			1770	5064			1779	1583	
Flt Permitted		0.07	1.00			0.06	1.00			0.70	1.00	
Satd. Flow (perm)		124	5078			121	5064			1299	1583	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	41	48	2087	20	7	13	1907	55	17	1	11	134
RTOR Reduction (vph)	0	0	1	0	0	0	2	0	0	0	9	0
Lane Group Flow (vph)	0	89	2106	0	0	20	1960	0	0	18	2	0
Turn Type	pm+pt	pm+pt	NA		pm+pt	pm+pt	NA		Perm	NA	Perm	Perm
Protected Phases	1	1	6		5	5	2			4		
Permitted Phases	6	6			2	2			4		4	8
Actuated Green, G (s)		105.1	96.1			94.5	90.8			19.5	19.5	
Effective Green, g (s)		105.1	96.1			94.5	90.8			19.5	19.5	
Actuated g/C Ratio		0.75	0.69			0.68	0.65			0.14	0.14	
Clearance Time (s)		6.8	6.8			6.8	6.8			7.1	7.1	
Vehicle Extension (s)		3.0	3.0			3.0	3.0			3.0	3.0	
Lane Grp Cap (vph)		198	3485			125	3284			180	220	
v/s Ratio Prot		c0.03	c0.41			0.00	0.39					
v/s Ratio Perm		0.31				0.10				0.01	0.00	
v/c Ratio		0.45	0.60			0.16	0.60			0.10	0.01	
Uniform Delay, d1		11.3	11.8			9.3	14.1			52.6	51.9	
Progression Factor		2.76	0.21			1.00	1.00			1.00	1.00	
Incremental Delay, d2		1.4	0.7			0.6	0.8			0.2	0.0	
Delay (s)		32.6	3.2			9.9	14.9			52.8	51.9	
Level of Service		C	A			A	B			D	D	
Approach Delay (s)			4.4				14.9			52.5		
Approach LOS			A				B			D		

Intersection Summary		
HCM 2000 Control Delay	11.6	HCM 2000 Level of Service
HCM 2000 Volume to Capacity ratio	0.64	B
Actuated Cycle Length (s)	140.0	Sum of lost time (s)
Intersection Capacity Utilization	77.5%	20.7
Analysis Period (min)	15	ICU Level of Service
		D

c Critical Lane Group

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to

HCM Signalized Intersection Capacity Analysis

9: Guilford Road & US 41

Build PM
11/02/2017



Movement	SWT	SWR
Lane Configurations	↔	↔
Traffic Volume (vph)	1	9
Future Volume (vph)	1	9
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	7.1	7.1
Lane Util. Factor	1.00	1.00
Frt	1.00	0.85
Flt Protected	0.95	1.00
Satd. Flow (prot)	1775	1583
Flt Permitted	0.71	1.00
Satd. Flow (perm)	1332	1583
Peak-hour factor, PHF	0.92	0.92
Adj. Flow (vph)	1	10
RTOR Reduction (vph)	0	9
Lane Group Flow (vph)	135	1
Turn Type	NA	Perm
Protected Phases	8	
Permitted Phases		8
Actuated Green, G (s)	19.5	19.5
Effective Green, g (s)	19.5	19.5
Actuated g/C Ratio	0.14	0.14
Clearance Time (s)	7.1	7.1
Vehicle Extension (s)	3.0	3.0
Lane Grp Cap (vph)	185	220
v/s Ratio Prot		
v/s Ratio Perm	c0.10	0.00
v/c Ratio	0.73	0.01
Uniform Delay, d1	57.7	51.9
Progression Factor	1.00	1.00
Incremental Delay, d2	13.4	0.0
Delay (s)	71.2	51.9
Level of Service	E	D
Approach Delay (s)	69.8	
Approach LOS	E	
Intersection Summary		

HCM Signalized Intersection Capacity Analysis
12: Palm Drive & US 41

Build PM
11/02/2017



Movement	WBL2	WBL	WBR	SEU	SEL	SET	SER	NWU	NWL	NWT	NWR	NEL
Lane Configurations		↔	↔		↔	↔			↔	↔	↔	↔
Traffic Volume (vph)	58	0	36	12	84	1783	0	7	1	1048	57	0
Future Volume (vph)	58	0	36	12	84	1783	0	7	1	1048	57	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.2	7.2		6.8	6.8			6.8	6.8	6.8	6.8
Lane Util. Factor		1.00	1.00		0.97	0.91			1.00	0.91	1.00	1.00
Frt		1.00	0.85		1.00	1.00			1.00	1.00	0.85	0.86
Flt Protected		0.95	1.00		0.95	1.00			0.95	1.00	1.00	1.00
Satd. Flow (prot)		1770	1583		3433	5085			1770	5085	1583	1611
Flt Permitted		0.95	1.00		0.95	1.00			0.95	1.00	1.00	1.00
Satd. Flow (perm)		1770	1583		3433	5085			1770	5085	1583	1611
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	63	0	39	13	91	1938	0	8	1	1139	62	0
RTOR Reduction (vph)	0	0	29	0	0	0	0	0	0	0	30	1
Lane Group Flow (vph)	0	63	10	0	104	1938	0	0	9	1139	32	1
Turn Type	Perm	Perm	Perm	Prot	Prot	NA		Prot	Prot	NA	Perm	Perm
Protected Phases				1	1	6		5	5	2		
Permitted Phases	8	8	8								2	4
Actuated Green, G (s)		36.8	36.8		9.6	80.9			1.5	72.8	72.8	37.2
Effective Green, g (s)		36.8	36.8		9.6	80.9			1.5	72.8	72.8	37.2
Actuated g/C Ratio		0.26	0.26		0.07	0.58			0.01	0.52	0.52	0.27
Clearance Time (s)		7.2	7.2		6.8	6.8			6.8	6.8	6.8	6.8
Vehicle Extension (s)		3.0	3.0		3.0	3.0			3.0	3.0	3.0	3.0
Lane Grp Cap (vph)		465	416		235	2938			18	2644	823	428
v/s Ratio Prot					c0.03	c0.38			0.01	0.22		
v/s Ratio Perm		c0.04	0.01								0.02	0.00
v/c Ratio		0.14	0.02		0.44	0.66			0.50	0.43	0.04	0.00
Uniform Delay, d1		39.4	38.3		62.6	20.2			68.9	20.8	16.5	37.8
Progression Factor		1.00	1.00		1.27	0.50			0.72	1.65	8.39	1.00
Incremental Delay, d2		0.1	0.0		1.2	1.0			16.7	0.4	0.1	0.0
Delay (s)		39.6	38.3		80.7	11.2			66.1	34.6	138.3	37.8
Level of Service		D	D		F	B			E	C	F	D
Approach Delay (s)		39.1			14.7				40.2			37.8
Approach LOS		D			B				D			D

Intersection Summary			
HCM 2000 Control Delay	24.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	20.8
Intersection Capacity Utilization	80.9%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to

HCM Signalized Intersection Capacity Analysis
 12: Palm Drive & US 41

Build PM
 11/02/2017



Movement	NER	NER2
Lane Configurations		
Traffic Volume (vph)	1	1
Future Volume (vph)	1	1
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)		
Lane Util. Factor		
Frt		
Flt Protected		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Peak-hour factor, PHF	0.92	0.92
Adj. Flow (vph)	1	1
RTOR Reduction (vph)	0	0
Lane Group Flow (vph)	0	0
Turn Type		
Protected Phases		
Permitted Phases		
Actuated Green, G (s)		
Effective Green, g (s)		
Actuated g/C Ratio		
Clearance Time (s)		
Vehicle Extension (s)		
Lane Grp Cap (vph)		
v/s Ratio Prot		
v/s Ratio Perm		
v/c Ratio		
Uniform Delay, d1		
Progression Factor		
Incremental Delay, d2		
Delay (s)		
Level of Service		
Approach Delay (s)		
Approach LOS		
Intersection Summary		

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to

HCM Signalized Intersection Capacity Analysis
 15: Espinal Blvd & US 41

Build PM
 11/02/2017

Movement	SBL	SBR	SBR2	SEU	SEL	SET	SER	NWU	NWL	NWT	NWR	NEL2
Lane Configurations												
Traffic Volume (vph)	142	0	71	18	112	1839	27	2	17	1005	16	7
Future Volume (vph)	142	0	71	18	112	1839	27	2	17	1005	16	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.2		7.2		6.8	6.8	6.8		6.8	6.8	6.8	7.2
Lane Util. Factor	1.00		1.00		1.00	0.91	1.00		1.00	0.91	1.00	1.00
Frt	1.00		0.85		1.00	1.00	0.85		1.00	1.00	0.85	1.00
Flt Protected	0.95		1.00		0.95	1.00	1.00		0.95	1.00	1.00	0.95
Satd. Flow (prot)	1770		1583		1770	5085	1583		1770	5085	1583	1770
Flt Permitted	1.00		1.00		0.22	1.00	1.00		0.08	1.00	1.00	0.95
Satd. Flow (perm)	1863		1583		404	5085	1583		145	5085	1583	1770
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	154	0	77	20	122	1999	29	2	18	1092	17	8
RTOR Reduction (vph)	0	0	68	0	0	0	9	0	0	0	6	0
Lane Group Flow (vph)	154	0	9	0	142	1999	20	0	20	1092	11	8
Turn Type	Perm		Perm	pm+pt	pm+pt	NA	Perm	pm+pt	pm+pt	NA	Perm	Perm
Protected Phases				1	1	6		5	5	2		
Permitted Phases	8		8	6	6		6	2	2		2	4
Actuated Green, G (s)	17.1		17.1		107.9	97.9	97.9		96.3	92.1	92.1	17.1
Effective Green, g (s)	17.1		17.1		107.9	97.9	97.9		96.3	92.1	92.1	17.1
Actuated g/C Ratio	0.12		0.12		0.77	0.70	0.70		0.69	0.66	0.66	0.12
Clearance Time (s)	7.2		7.2		6.8	6.8	6.8		6.8	6.8	6.8	7.2
Vehicle Extension (s)	3.0		3.0		3.0	3.0	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	227		193		408	3555	1106		148	3345	1041	216
v/s Ratio Prot					c0.02	c0.39			0.00	0.21		
v/s Ratio Perm	c0.08		0.01		0.24		0.01		0.09		0.01	0.00
v/c Ratio	0.68		0.05		0.35	0.56	0.02		0.14	0.33	0.01	0.04
Uniform Delay, d1	58.8		54.3		4.8	10.4	6.4		8.0	10.4	8.3	54.2
Progression Factor	1.00		1.00		0.38	0.66	1.00		1.10	0.67	1.00	1.00
Incremental Delay, d2	7.8		0.1		0.4	0.5	0.0		0.4	0.2	0.0	0.1
Delay (s)	66.6		54.4		2.2	7.4	6.4		9.1	7.2	8.3	54.3
Level of Service	E		D		A	A	A		A	A	A	D
Approach Delay (s)	62.5					7.1				7.3		
Approach LOS	E					A				A		

Intersection Summary		
HCM 2000 Control Delay	11.4	HCM 2000 Level of Service
HCM 2000 Volume to Capacity ratio	0.58	B
Actuated Cycle Length (s)	140.0	Sum of lost time (s)
Intersection Capacity Utilization	78.4%	20.8
Analysis Period (min)	15	ICU Level of Service
		D

c Critical Lane Group

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to

HCM Signalized Intersection Capacity Analysis
 15: Espinal Blvd & US 41

Build PM
 11/02/2017



Movement	NEL	NER
Lane Configurations		
Traffic Volume (vph)	17	24
Future Volume (vph)	17	24
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	7.2	7.2
Lane Util. Factor	1.00	1.00
Frt	1.00	0.85
Flt Protected	0.95	1.00
Satd. Flow (prot)	1770	1583
Flt Permitted	0.95	1.00
Satd. Flow (perm)	1770	1583
Peak-hour factor, PHF	0.92	0.92
Adj. Flow (vph)	18	26
RTOR Reduction (vph)	0	23
Lane Group Flow (vph)	18	3
Turn Type	Perm	Perm
Protected Phases		
Permitted Phases	4	4
Actuated Green, G (s)	17.1	17.1
Effective Green, g (s)	17.1	17.1
Actuated g/C Ratio	0.12	0.12
Clearance Time (s)	7.2	7.2
Vehicle Extension (s)	3.0	3.0
Lane Grp Cap (vph)	216	193
v/s Ratio Prot		
v/s Ratio Perm	0.01	0.00
v/c Ratio	0.08	0.02
Uniform Delay, d1	54.5	54.1
Progression Factor	1.00	1.00
Incremental Delay, d2	0.2	0.0
Delay (s)	54.7	54.1
Level of Service	D	D
Approach Delay (s)	54.3	
Approach LOS	D	
Intersection Summary		

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to

HCM Signalized Intersection Capacity Analysis
 20: Bayshore Drive & US 41

Build PM
 11/02/2017

												
Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEU	SEL	SET	SER	NWU	NWL
Lane Configurations												
Traffic Volume (vph)	138	71	277	64	104	31	11	19	1157	148	16	271
Future Volume (vph)	138	71	277	64	104	31	11	19	1157	148	16	271
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.3	7.3	7.3	7.3	7.3			7.6	7.6			7.6
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00			1.00	0.91			0.97
Frt	1.00	1.00	0.85	1.00	0.97			1.00	0.98			1.00
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.95	1.00			0.95
Satd. Flow (prot)	1770	1863	1583	1770	1798			1770	4999			3433
Flt Permitted	0.95	1.00	1.00	0.95	1.00			0.95	1.00			0.95
Satd. Flow (perm)	1770	1863	1583	1770	1798			1770	4999			3433
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	150	77	301	70	113	34	12	21	1258	161	17	295
RTOR Reduction (vph)	0	0	126	0	8	0	0	0	0	0	0	0
Lane Group Flow (vph)	150	77	175	70	139	0	0	33	1419	0	0	312
Turn Type	Prot	NA	Perm	Prot	NA			Prot	Prot	NA		Prot
Protected Phases	7	4		3	8			1	1	6		5
Permitted Phases			4									5
Actuated Green, G (s)	15.3	23.8	23.8	7.6	16.1			5.2	62.0			16.8
Effective Green, g (s)	15.3	23.8	23.8	7.6	16.1			5.2	62.0			16.8
Actuated g/C Ratio	0.11	0.17	0.17	0.05	0.12			0.04	0.44			0.12
Clearance Time (s)	7.3	7.3	7.3	7.3	7.3			7.6	7.6			7.6
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0			3.0	3.0			3.0
Lane Grp Cap (vph)	193	316	269	96	206			65	2213			411
v/s Ratio Prot	c0.08	0.04		0.04	0.08			0.02	c0.28			c0.09
v/s Ratio Perm			c0.11									
v/c Ratio	0.78	0.24	0.65	0.73	0.67			0.51	0.64			0.76
Uniform Delay, d1	60.7	50.3	54.2	65.2	59.4			66.1	30.3			59.6
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00			0.52
Incremental Delay, d2	17.6	0.4	5.3	24.0	8.4			6.1	1.4			6.8
Delay (s)	78.3	50.7	59.5	89.1	67.9			72.3	31.8			37.9
Level of Service	E	D	E	F	E			E	C			D
Approach Delay (s)		63.6			74.7				32.7			
Approach LOS		E			E				C			
Intersection Summary												
HCM 2000 Control Delay			39.8	HCM 2000 Level of Service				D				
HCM 2000 Volume to Capacity ratio			0.70									
Actuated Cycle Length (s)			140.0	Sum of lost time (s)				29.8				
Intersection Capacity Utilization			81.7%	ICU Level of Service				D				
Analysis Period (min)			15									

c Critical Lane Group

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to

HCM Signalized Intersection Capacity Analysis
 20: Bayshore Drive & US 41

Build PM
 11/02/2017



Movement	NWT	NWR
Lane Configurations	↑↑↑	
Traffic Volume (vph)	792	59
Future Volume (vph)	792	59
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	7.6	
Lane Util. Factor	0.91	
Frt	0.99	
Flt Protected	1.00	
Satd. Flow (prot)	5033	
Flt Permitted	1.00	
Satd. Flow (perm)	5033	
Peak-hour factor, PHF	0.92	0.92
Adj. Flow (vph)	861	64
RTOR Reduction (vph)	0	0
Lane Group Flow (vph)	925	0
Turn Type	NA	
Protected Phases	2	
Permitted Phases		
Actuated Green, G (s)	73.6	
Effective Green, g (s)	73.6	
Actuated g/C Ratio	0.53	
Clearance Time (s)	7.6	
Vehicle Extension (s)	3.0	
Lane Grp Cap (vph)	2645	
v/s Ratio Prot	0.18	
v/s Ratio Perm		
v/c Ratio	0.35	
Uniform Delay, d1	19.3	
Progression Factor	1.53	
Incremental Delay, d2	0.3	
Delay (s)	29.7	
Level of Service	C	
Approach Delay (s)	31.8	
Approach LOS	C	
Intersection Summary		

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to

HCM Signalized Intersection Capacity Analysis
 23: Commercial Drive & US 41/US 41-1

Build PM
 11/02/2017



Movement	SEU	SEL	SET	SER	NWU	NWL	NWT	NWR	NEL	NET	NER	SWL
Lane Configurations		↔	↑↑↑			↔	↑↑↑		↔	↑	↑	↔
Traffic Volume (vph)	3	69	1297	25	14	17	892	31	26	25	28	87
Future Volume (vph)	3	69	1297	25	14	17	892	31	26	25	28	87
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.8	7.8			7.8	7.8		8.0	8.0		8.0
Lane Util. Factor		1.00	0.91			1.00	0.91		1.00	1.00		1.00
Frt		1.00	1.00			1.00	0.99		1.00	0.92		1.00
Flt Protected		0.95	1.00			0.95	1.00		0.95	1.00		0.95
Satd. Flow (prot)		1770	5071			1770	5059		1770	1716		1770
Flt Permitted		0.25	1.00			0.15	1.00		0.95	1.00		0.95
Satd. Flow (perm)		457	5071			275	5059		1770	1716		1770
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	3	75	1410	27	15	18	970	34	28	27	30	95
RTOR Reduction (vph)	0	0	1	0	0	0	2	0	0	25	0	0
Lane Group Flow (vph)	0	78	1436	0	0	33	1002	0	28	32	0	95
Turn Type	Prot	pm+pt	NA		Prot	pm+pt	NA		Prot	NA		Prot
Protected Phases	1	1	6		5	5	2		7	4		3
Permitted Phases		6				2						
Actuated Green, G (s)		108.2	100.6			103.6	98.3		7.1	9.0		13.5
Effective Green, g (s)		108.2	100.6			103.6	98.3		7.1	9.0		13.5
Actuated g/C Ratio		0.68	0.63			0.65	0.61		0.04	0.06		0.08
Clearance Time (s)		7.8	7.8			7.8	7.8		8.0	8.0		8.0
Vehicle Extension (s)		3.0	3.0			3.0	3.0		3.0	3.0		3.0
Lane Grp Cap (vph)		371	3188			227	3108		78	96		149
v/s Ratio Prot		c0.01	c0.28			0.00	0.20		0.02	c0.02		0.05
v/s Ratio Perm		0.13				0.09						
v/c Ratio		0.21	0.45			0.15	0.32		0.36	0.33		0.64
Uniform Delay, d1		9.2	15.4			10.9	14.8		74.2	72.6		70.9
Progression Factor		1.00	1.00			1.00	1.00		1.00	1.00		1.00
Incremental Delay, d2		0.3	0.5			0.3	0.3		2.8	2.0		8.6
Delay (s)		9.5	15.8			11.2	15.1		77.1	74.6		79.5
Level of Service		A	B			B	B		E	E		E
Approach Delay (s)			15.5				15.0			75.4		
Approach LOS			B				B			E		

Intersection Summary			
HCM 2000 Control Delay	22.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	160.0	Sum of lost time (s)	31.6
Intersection Capacity Utilization	68.1%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to

HCM Signalized Intersection Capacity Analysis
 23: Commercial Drive & US 41/US 41-1

Build PM
 11/02/2017



Movement	SWT	SWR
Lane Configurations	↔	
Traffic Volume (vph)	59	77
Future Volume (vph)	59	77
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	8.0	
Lane Util. Factor	1.00	
Frt	0.91	
Flt Protected	1.00	
Satd. Flow (prot)	1704	
Flt Permitted	1.00	
Satd. Flow (perm)	1704	
Peak-hour factor, PHF	0.92	0.92
Adj. Flow (vph)	64	84
RTOR Reduction (vph)	29	0
Lane Group Flow (vph)	119	0
Turn Type	NA	
Protected Phases	8	
Permitted Phases		
Actuated Green, G (s)	15.4	
Effective Green, g (s)	15.4	
Actuated g/C Ratio	0.10	
Clearance Time (s)	8.0	
Vehicle Extension (s)	3.0	
Lane Grp Cap (vph)	164	
v/s Ratio Prot	c0.07	
v/s Ratio Perm		
v/c Ratio	0.73	
Uniform Delay, d1	70.3	
Progression Factor	1.00	
Incremental Delay, d2	14.8	
Delay (s)	85.0	
Level of Service	F	
Approach Delay (s)	82.9	
Approach LOS	F	
Intersection Summary		

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to

Arterial Level of Service

Build PM

11/02/2017

Arterial Level of Service: NW US 41

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Guilford Road	II	45	18.8	16.0	34.8	0.17	17.8	D
Palm Drive	II	45	35.8	35.1	70.9	0.37	18.9	D
Espinal Blvd	II	45	24.5	7.8	32.3	0.24	26.3	C
Airport Pulling Road	II	45	22.9	18.0	40.9	0.21	18.5	D
Bayshore Drive	II	45	31.8	30.3	62.1	0.32	18.6	D
Commercial Drive	II	45	49.3	14.6	63.9	0.62	34.8	B
Total	II		183.1	121.8	304.9	1.93	22.8	C

Arterial Level of Service: SE US 41

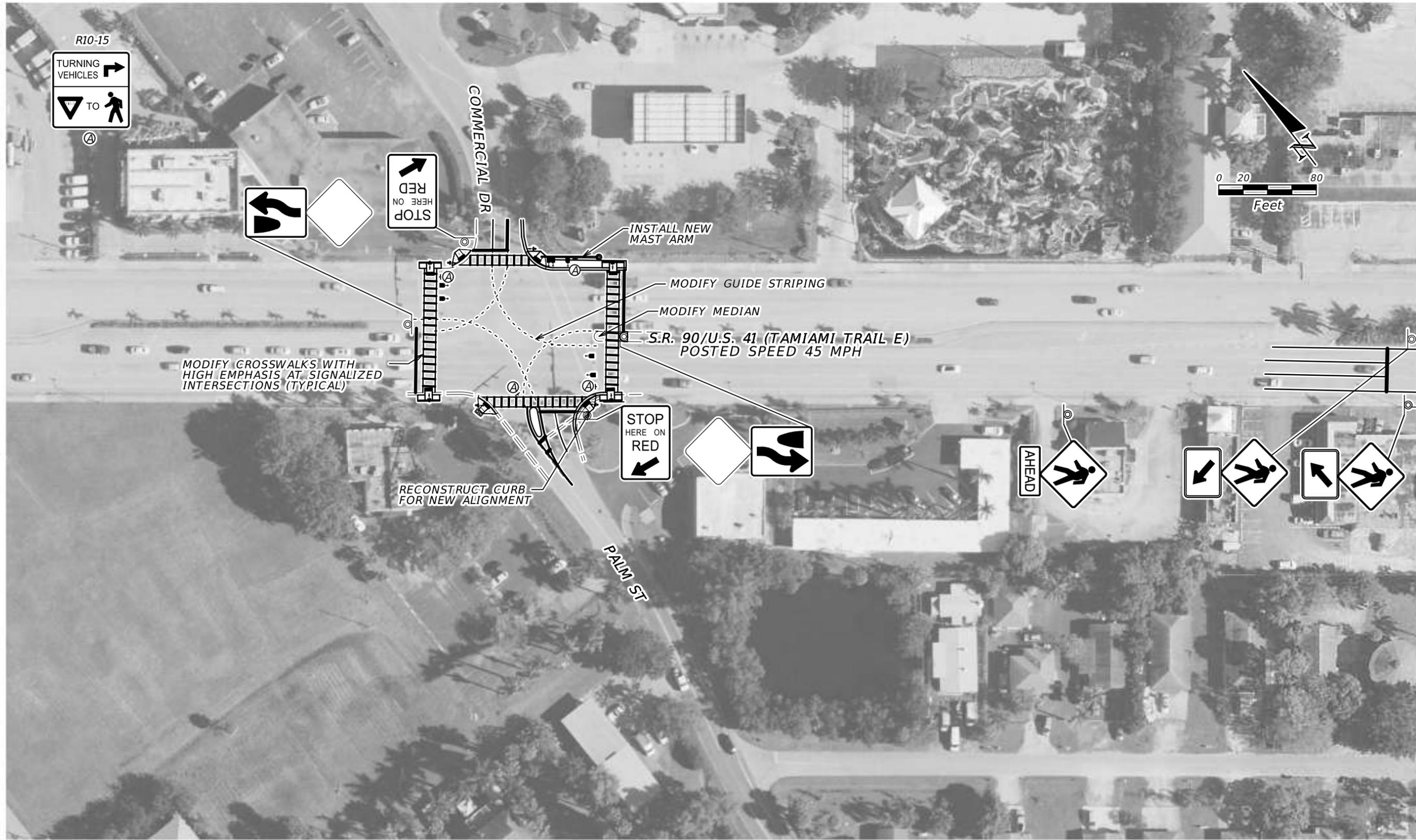
Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Bayshore Drive	II	45	49.3	33.1	82.4	0.62	27.0	C
Airport Pulling Road	II	45	31.8	12.7	44.5	0.32	26.0	C
Espinal Blvd	II	45	22.9	7.5	30.4	0.21	24.9	C
Palm Drive	II	45	24.5	9.6	34.1	0.24	24.9	C
Guilford Road	II	45	35.8	3.2	39.0	0.37	34.4	B
Total	II		164.3	66.1	230.4	1.76	27.5	C



APPENDIX F

CONCEPTUAL DESIGN PLANS

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to



MATCHLINE - SEE SHEET 2

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 90	COLLIER	409224-1-32-91

CONCEPTUAL DESIGN

SHEET NO.
Packet Pg. 408



MATCHLINE - SEE SHEET 1

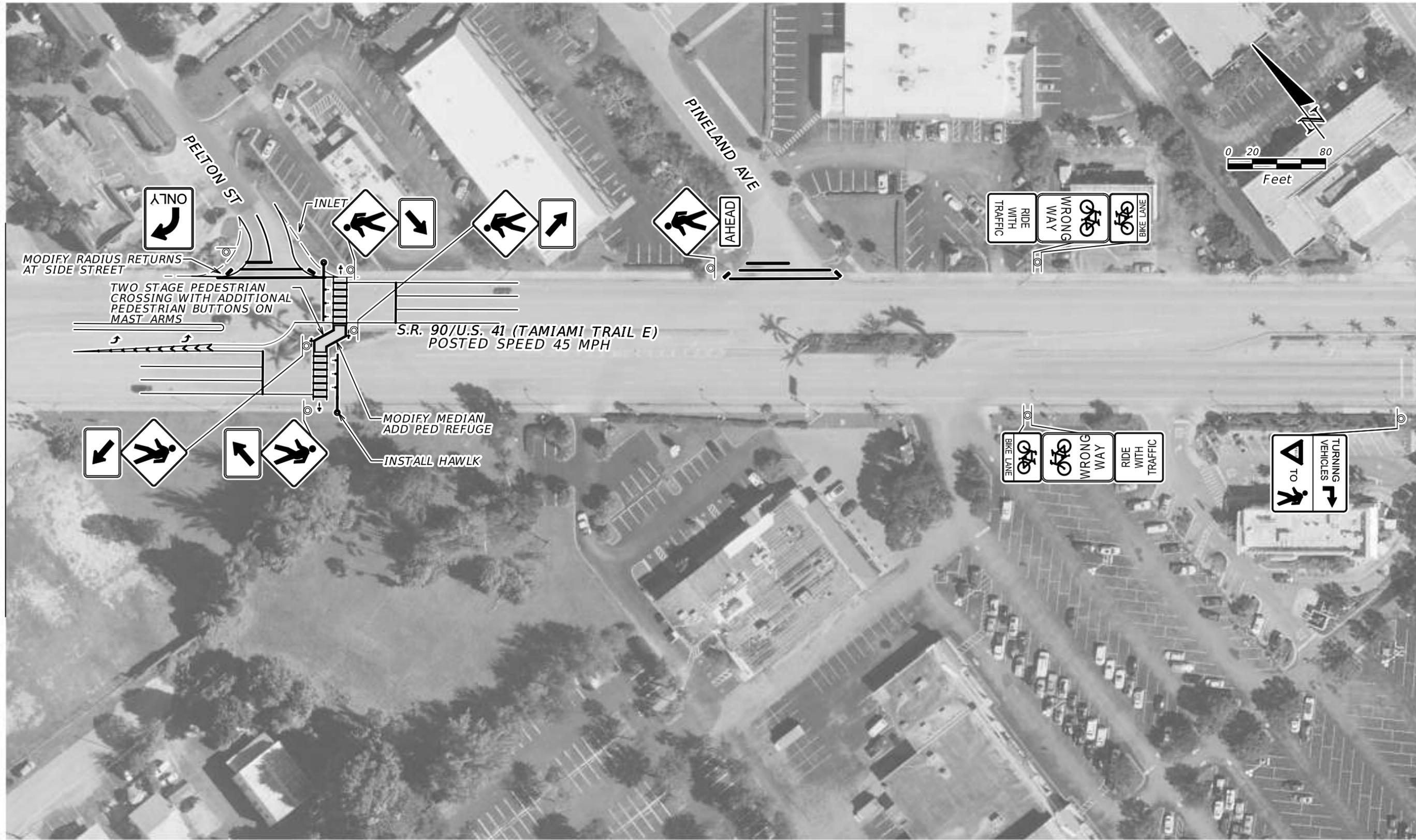
MATCHLINE - SEE SHEET 3

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 90	COLLIER	409224-1-32-91

CONCEPTUAL DESIGN

SHEET NO.
Packet Pg. 409



MATCHLINE - SEE SHEET 2

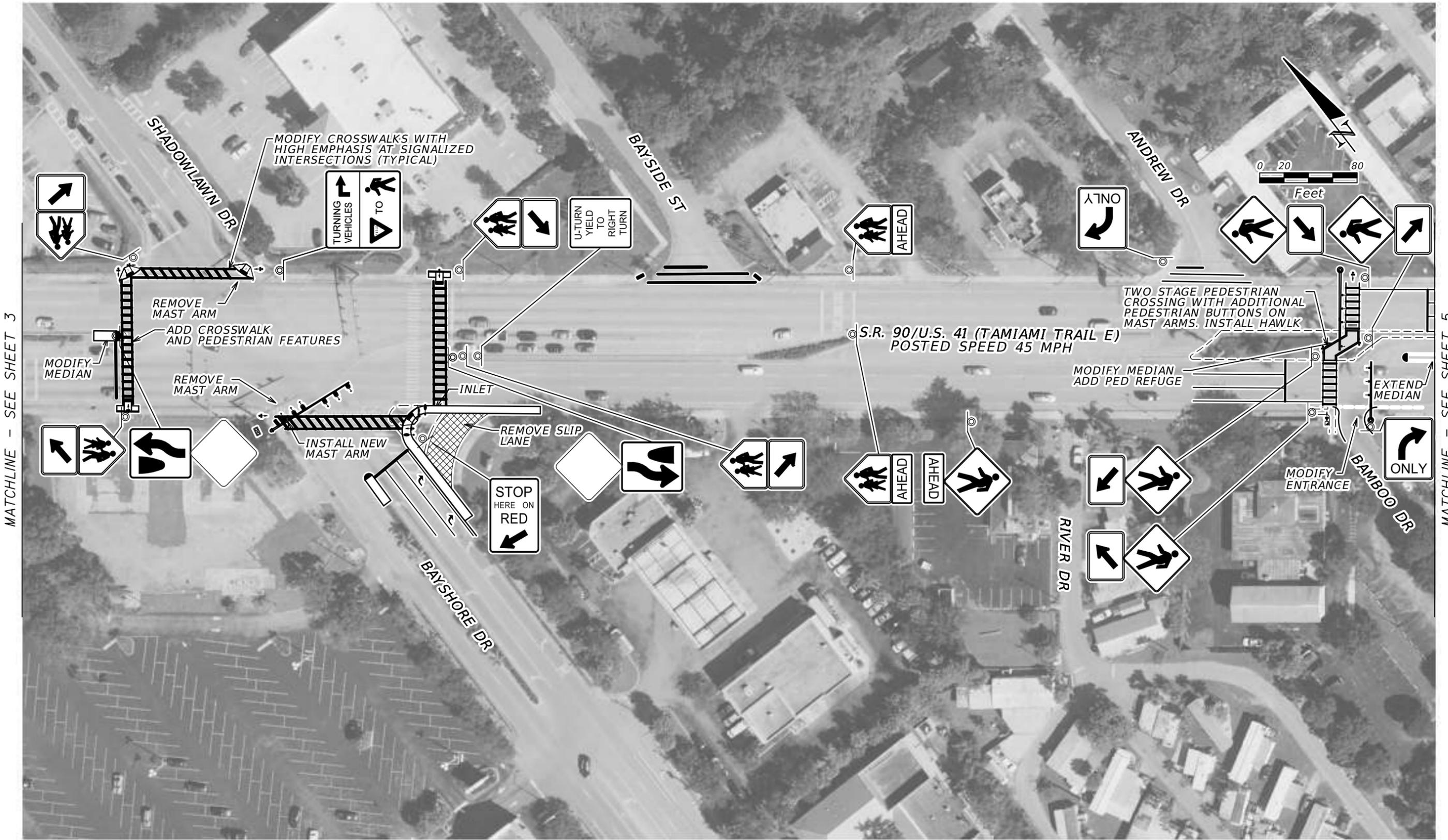
MATCHLINE - SEE SHEET 4

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 90	COLLIER	409224-1-32-91

CONCEPTUAL DESIGN

SHEET NO.
Packet Pg. 410



MATCHLINE - SEE SHEET 3

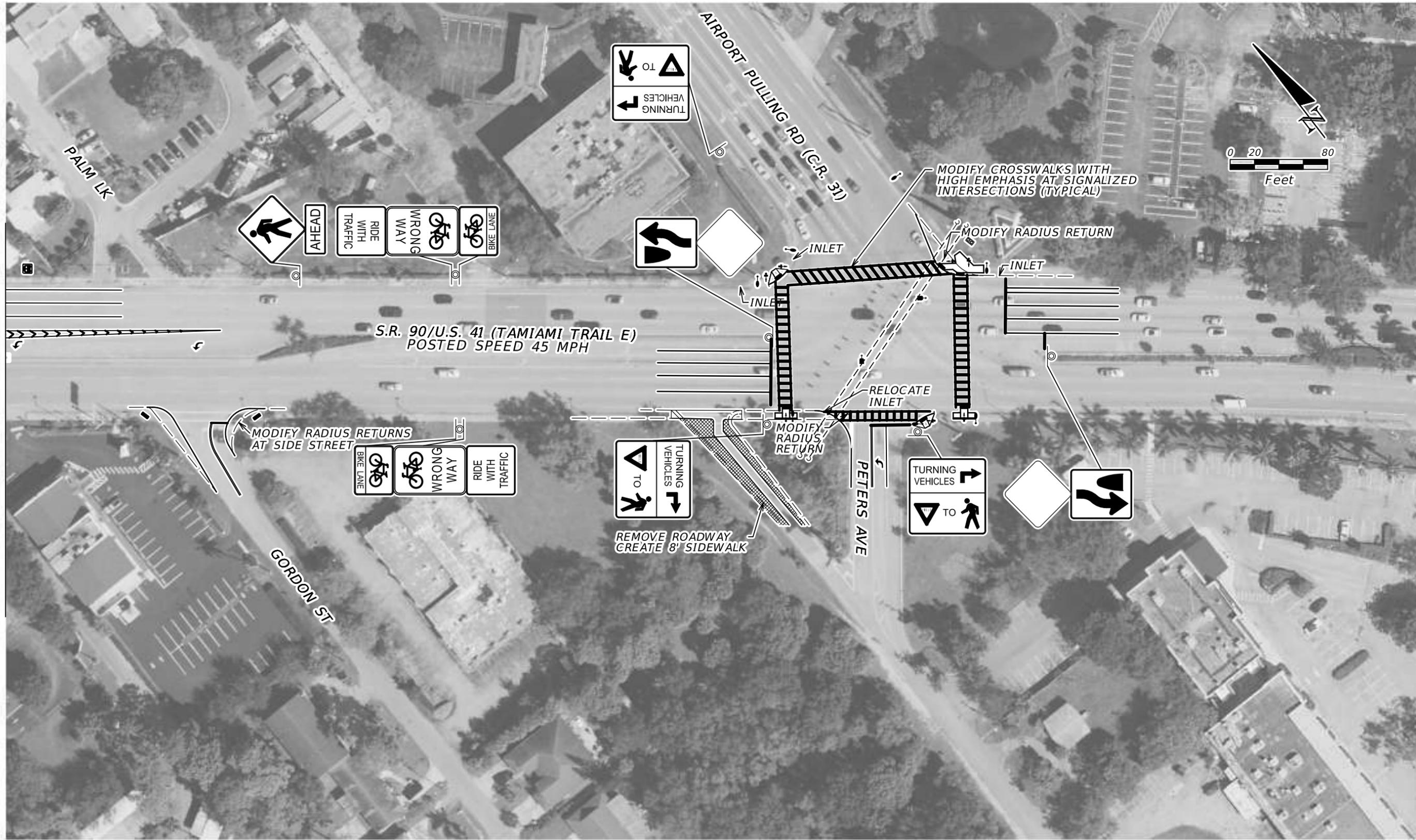
MATCHLINE - SEE SHEET 5

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 90	COLLIER	409224-1-32-91

CONCEPTUAL DESIGN

SHEET NO.
Packet Pg. 411



MATCHLINE - SEE SHEET 4

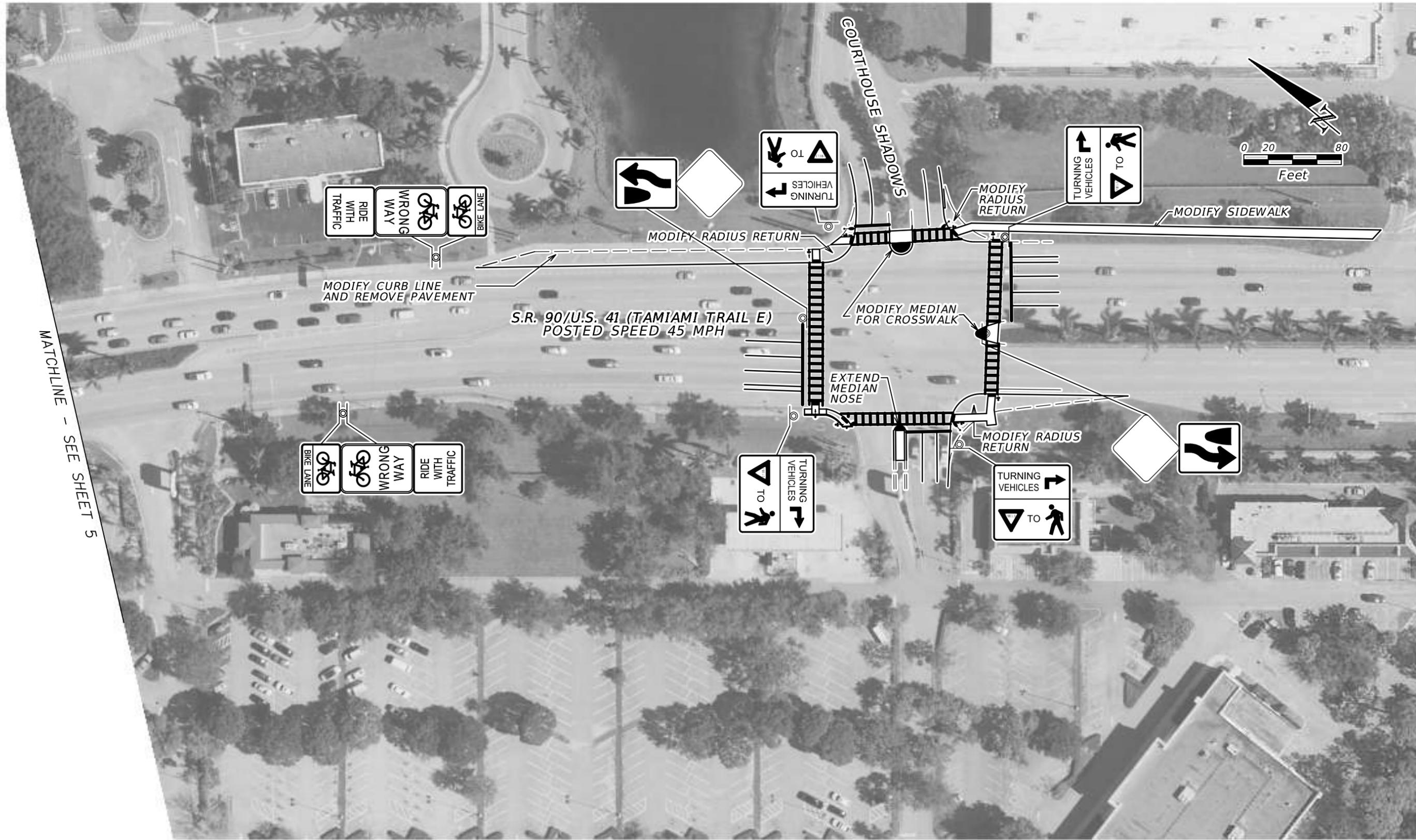
MATCHLINE - SEE SHEET 6

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 90	COLLIER	409224-1-32-91

CONCEPTUAL DESIGN

SHEET NO.
Packet Pg. 412



MATCHLINE - SEE SHEET 5

MATCHLINE - SEE SHEET 7

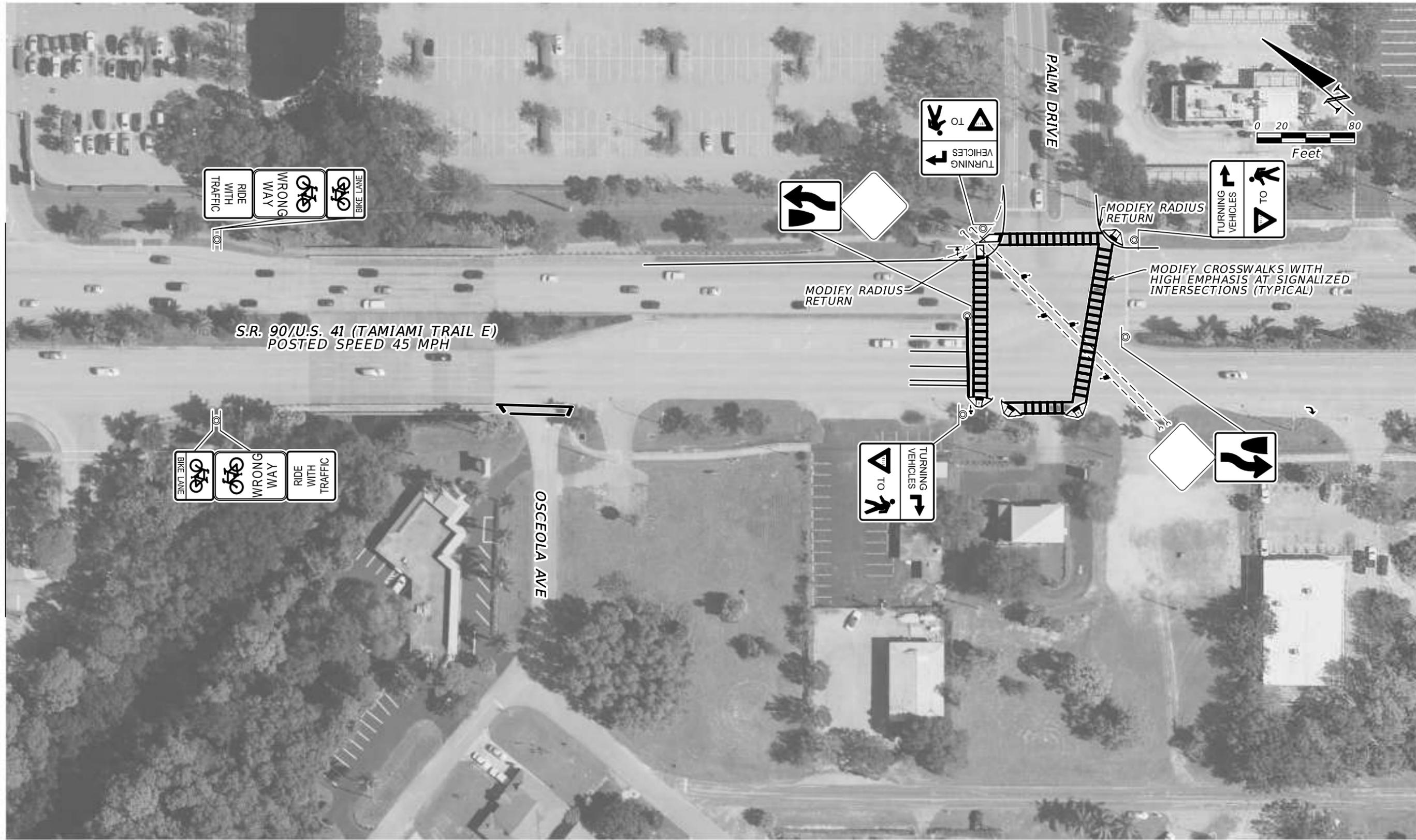
REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 90	COLLIER	409224-1-32-91

CONCEPTUAL DESIGN

SHEET NO.
Packet Pg. 413

MATCHLINE - SEE SHEET 6



MATCHLINE - SEE SHEET 8

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 90	COLLIER	409224-1-32-91

CONCEPTUAL DESIGN

SHEET NO.
Packet Pg. 414

MATCHLINE - SEE SHEET 7



MATCHLINE - SEE SHEET 9

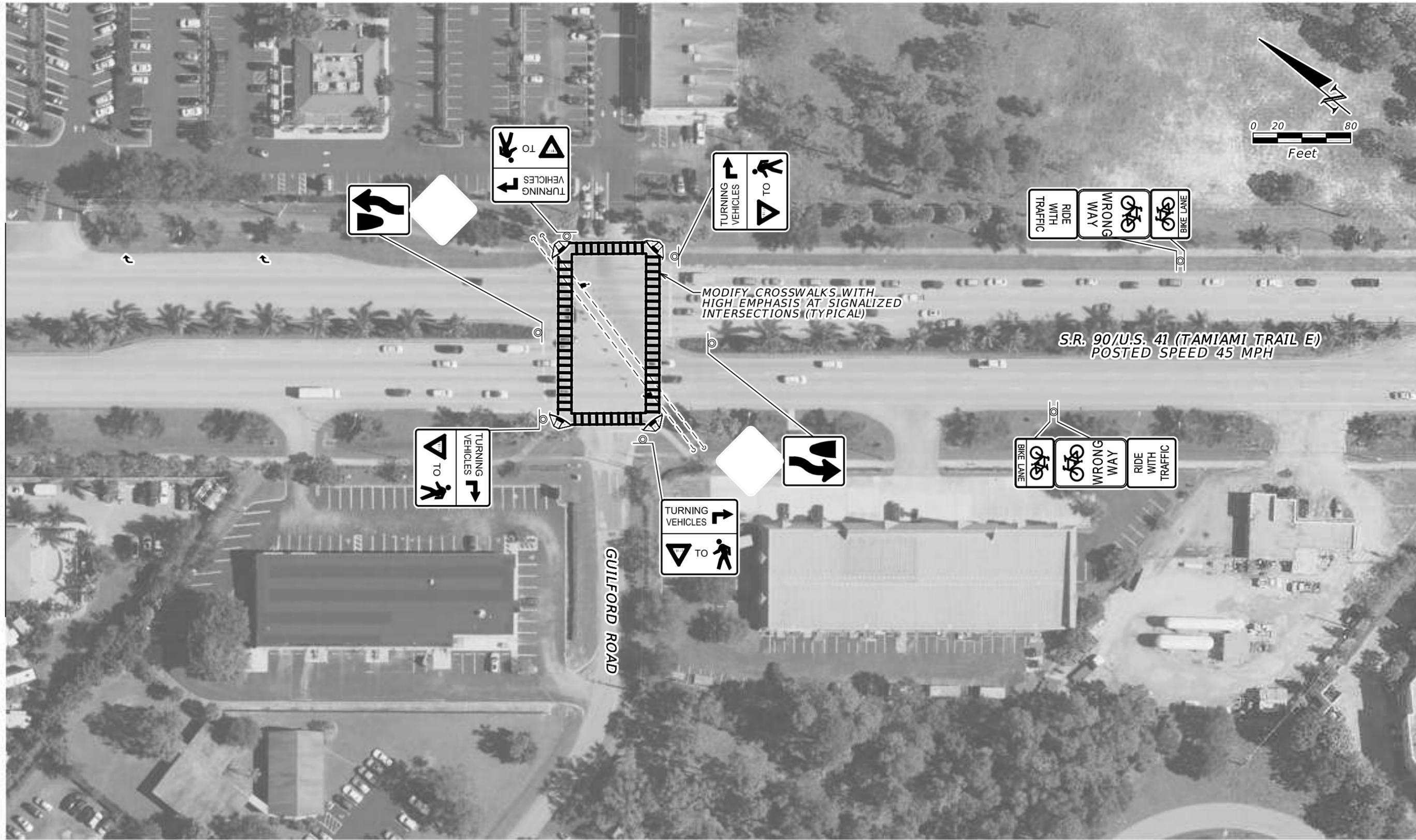
REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 90	COLLIER	409224-1-32-91

CONCEPTUAL DESIGN

SHEET NO.
Packet Pg. 415

MATCHLINE - SEE SHEET 8



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 90	COLLIER	409224-1-32-91

CONCEPTUAL DESIGN

SHEET NO.
Packet Pg. 416



APPENDIX G

ENGINEER'S ESTIMATE

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to

S.R. 90 (U.S. 41/TAMIAMI TRAIL E) FROM COMMERCIAL DRIVE/PALM STREET TO GUILFORD ROAD

PAY ITEM NUMBER	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL
101-1	MOBILIZATION	LS	1	10%	See Below
102-1	MAINTENANCE OF TRAFFIC	LS	1	10%	See Below
102-14	TRAFFIC CONTROL OFFICER	HR	72	\$42.86	\$3,085.92
102-60	WORK ZONE SIGN	ED	6480	\$0.28	\$1,814.40
102-74-1	CHANNEL DEVICE-TYPS I,II,DI,VP, DRUM, LC	ED	14040	\$0.13	\$1,825.20
102-76	ARROW BOARD /ADVANCE WARNING ARROW PANEL	ED	270	\$5.95	\$1,606.50
102-99	PORTABLE CHANGEABLE MESSAGE SIGN,TEMP	ED	270	\$13.73	\$3,707.10
110-1-1	CLEARING AND GRUBBING	AC	1	\$12,329.15	\$12,329.15
110-4	REMOVAL OF EXISTING CONCRETE PAVEMENT	SY	1710	\$21.53	\$36,816.30
285-706	OPTIONAL BASE,BASE GROUP 06	SY	437	\$16.07	\$7,022.59
334-1-53	SUPERPAVE ASPHALTIC CONCRETE, TRAFFIC C, PG76-22	TN	49	\$103.84	\$5,088.16
337-7-83	ASPHALTIC CONCRETE FRICTION CONCRETE,TRAFFIC C,FC-12.5,PG 76-22	TN	37	\$95.23	\$3,523.51
425-11	MODIFY EXISTING DRAINAGE STRUCTURE	EA	10	\$2,903.29	\$29,032.90
520-1-7	CONCRETE CURB & GUTTER, TYPE E	LF	72	\$15.84	\$1,140.48
520-1-10	CONCRETE CURB & GUTTER, TYPE F	LF	680	\$19.79	\$13,457.20
520-70	CONCRETE TRAFFIC SEPARATOR, SPECIAL-VARIABLE WIDTH	SY	1064	\$76.32	\$81,204.48
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4" THICK	SY	1332	\$38.10	\$50,749.20
527-2	DETECTABLE WARNINGS	SF	730	\$28.72	\$20,965.60
570-1-2	PERFORMANCE TURF, SOD	SY	1500	\$2.61	\$3,915.00
630-2-12	CONDUIT, FURNISH & INSTALL, DIRECTIONAL BORE	LF	4370	\$17.24	\$75,338.80
632-7-1	SIGNAL CABLE-NEW OR RECONSTRUCTED INTERSECTION, FURNISH & INSTALL	PI	1	\$5,406.00	\$5,406.00
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24" COVER SIZE	EA	73	\$609.70	\$44,508.10
639-3-11	ELECTRICAL SERVICE DISCONNECT, F&I, POLE MOUNT	EA	3	\$1,286.25	\$3,858.75
641-2-12	PRESTRESSED CONCRETE POLE, F&I, TYPE P-II SERVICE POLE	EA	3	\$1,696.59	\$5,089.77
646-1-12	ALUMINUM SIGNALS POLE, FURNISH & INSTALL, PEDESTRIAN DETECTOR POST	EA	49	\$910.13	\$44,596.37
646-1-60	ALUMINUM SIGNALS POLE (PEDESTAL AND PEDESTRIAN DETECTOR POST), REMOVE	EA	24	\$180.36	\$4,328.64
649-31-107	MAST ARM, F&I, WIND SPEED-150, SINGLE ARM, WITH LUMINAIRE-46'	EA	5	\$34,250.00	\$171,250.00
649-31-109	MAST ARM, F&I, WIND SPEED-150, SINGLE ARM, WITH LUMINAIRE-70.5'	EA	3	\$41,351.83	\$124,055.49
649-36-500	MAST ARM, REMOVE DEEP/COMPLETE FOUNDATION, BOLT ON ATTACHMENT	EA	2	\$5,007.17	\$10,014.34
650-1-14	TRAFFIC SIGNAL, FURNISH & INSTALL, ALUMINUM, 3 SECTION, 1 WAY	AS	30	\$920.24	\$27,607.20
650-1-16	TRAFFIC SIGNAL, FURNISH & INSTALL, ALUMINUM, 4 SECTION, 1 WAY	AS	4	\$1,177.97	\$4,711.88
650-1-60	TRAFFIC SIGNAL, REMOVE-POLES TO REMAIN	AS	10	\$109.22	\$1,092.20
653-1-11	PEDESTRIAN SIGNAL, FURNISH & INSTALL, LED COUNTDOWN, 1 WAY	AS	49	\$654.35	\$32,063.15
653-1-60	PEDESTRIAN SIGNAL, REMOVE PED SIGNAL - POLE/PEDESTAL TO REMAIN	AS	6	\$56.91	\$341.46
660-2-102	LOOP ASSEMBLY, F&I, TYPE B	AS	16	\$668.58	\$10,697.28
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	AS	8	\$819.11	\$6,552.88

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail

S.R. 90 (U.S. 41/TAMIAMI TRAIL E) FROM COMMERCIAL DRIVE/PALM STREET TO GUILFORD ROAD

PAY ITEM NUMBER	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL
665-1-11	PEDESTRIAN DETECTOR, FURNISH & INSTALL, STANDARD	EA	49	\$237.07	\$11,616.43
665-1-60	PEDESTRIAN DETECTOR, REMOVE-POLE PEDESTAL TO REMAIN	EA	6	\$42.02	\$252.12
670-5-110	TRAFFIC CONTROLLER ASSEMBLY, F&I, NEMA	AS	3	\$29,136.61	\$87,409.83
670-5-400	TRAFFIC CONTROLLER ASSEMBLY, MODIFY	AS	6	\$1,842.03	\$11,052.18
700-1-12	SINGLE POST SIGN, F&I, GROUND MOUNT, 12-20 SF	AS	143	\$1,030.43	\$147,351.49
705-10-4	OBJECT MARKER, TYPE 4	EA	16	\$175.55	\$2,808.80
710-11-290	PAINTED PAVEMENT MARKING, STANDARD, YELLOW, ISLAND NOSE	SF	40	\$2.72	\$108.80
711-11-123	THERMOPLASTIC, STANDARD, WHITE, SOLID, 12"	LF	3400	\$2.01	\$6,834.00
711-11-124	THERMOPLASTIC, STANDARD, WHITE, SOLID, 18"	LF	300	\$2.96	\$888.00
711-11-125	THERMOPLASTIC, STANDARD, WHITE, SOLID, 24"	LF	3000	\$4.05	\$12,150.00
711-11-141	THERMOPLASTIC, STANDARD, WHITE, DOT GUIDE, 6"	GM	0.05	\$1,899.38	\$94.97
711-11-170	THERMOPLASTIC, STANDARD, WHITE, ARROW	EA	17	\$66.46	\$1,129.82
711-15-101	THERMOPLASTIC, STANDARD-OPEN GRADED ASPHALT SURFACES, WHITE, SOLID, 6"	GM	1.2	\$4,392.97	\$5,271.56
711-15-201	THERMOPLASTIC, STANDARD-OPEN GRADED ASPHALT SURFACES, YELLOW, SOLID, 6"	GM	0.8	\$4,086.28	\$3,269.02
715-1-12	LIGHTING CONDUCTORS, F&I, INSULATED, NO. 8-6	LF	3200	\$1.27	\$4,064.00
715-4-122	LIGHT POLE COMPLETE, F&I, WIND SPEED 130, POLE HEIGHT 45'	EA	14	\$5,551.03	\$77,714.42
999-25	INITIAL CONTINGENCY (DO NOT BID)	LS	1	5%	See Below
	CONTINGENCY (PROJECT UNKNOWNNS)			15%	See Below
				SUBTOTAL:	\$1,220,811.45
				(101-1) MOB (MOBILIZATION)	10% \$122,081.14
				SUBTOTAL:	\$1,342,892.59
				(101-1) MOT (MAINTENANCE OF TRAFFIC)	10% \$122,081.14
				SUBTOTAL:	\$1,464,973.74
				PU (PROJECT UNKNOWNNS)	15% \$219,746.06
				SUBTOTAL:	\$1,684,719.80
				(999-25) INITIAL CONTINGENCY (DO NOT BID)	5% \$84,235.99
				SUBTOTAL:	\$1,768,955.79
				RIGHT-OF-WAY	\$0.00
				PROJECT TOTAL:	\$1,768,955.79



APPENDIX H

NET PRESENT VALUE AND BENEFIT COST ANALYSIS

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to



Rev. 02/2014

Benefit-Cost Analysis

District: **One** County: **03 - Collier** Date Prepared: **07/06/17**

Location: **U.S 41 from Commercial Dr to Guilford Rd**

Section : **3010000** Beg. Milepost : **13.158** End Milepost : **15.024**
 Rdway Type: **6+ Lanes Urban Divided**

Control Element: **Other (describe in box below)**

Remove existing slip ramp, Install three pedestrian hybrid beacons (PHB or Hawlk), Install retroreflective backplates, and Upgrade pedestrian features.

ANNUAL COST OF IMPROVEMENTS

Type	Cost	Service Life	Capital Recovery Factor	Total
ROW		100	0.0408	\$ -
P.E.C.E.I.	\$ 442,238.95	20	0.0736	\$ 32,548.79
Structure		75	0.0425	\$ -
Roadway	\$ 1,768,955.79	20	0.0736	\$ 130,195.15
Drainage		20	0.0736	\$ -
Signal		20	0.0736	\$ -
Other		20	0.0736	\$ -
Sub-Total	\$ 2,211,194.74			\$ 162,743.93
Annual Cost =				\$ 162,743.93

Total number of crashes = **560**
 # of correctable crashes, PC = **560**
 # of years of crash data, YD = **5**
 PC/YD = **112.00**
 Crash reduction factor, CRF = **75.26%**
 CRF x (PC/YD) = **84.29**
 Cost per crash, CPC = **\$117,867.00**
 Benefit = **\$9,934,689**

Primary crash reduction factor (%): **59**
 Change Right Turn Lane Geometry to Increase Line of Sight
 Additional crash reduction factor: **29**
 Install a Pedestrian Hybrid Beacon (PHB or Hawlk)
 Additional crash reduction factor: **15**
 Install Backplates

BENEFIT/COST RATIO

$$\frac{\text{Benefit}}{\text{Cost}} = \frac{\$9,934,688.83}{\$162,743.93} = \mathbf{61.04}$$

Prepared by: **Sara Linares**

Year	CRF x (PC/YD)	Cost per Crash	(P/A,I,y) Factor	Present Value
1	84.29	\$117,867.00	0.96	\$9,552,908.97
2	84.29	\$117,867.00	0.92	\$9,185,512.32
3	84.29	\$117,867.00	0.89	\$8,832,223.38
4	84.29	\$117,867.00	0.85	\$8,492,446.06
5	84.29	\$117,867.00	0.82	\$8,165,882.30
6	84.29	\$117,867.00	0.79	\$7,851,737.30
7	84.29	\$117,867.00	0.76	\$7,549,812.37
8	84.29	\$117,867.00	0.73	\$7,259,412.04
9	84.29	\$117,867.00	0.70	\$6,980,238.28
10	84.29	\$117,867.00	0.68	\$6,711,694.97
11	84.29	\$117,867.00	0.65	\$6,453,583.43
12	84.29	\$117,867.00	0.62	\$6,205,406.89
13	84.29	\$117,867.00	0.60	\$5,966,668.61
14	84.29	\$117,867.00	0.58	\$5,737,269.25
15	84.29	\$117,867.00	0.56	\$5,516,513.34
16	84.29	\$117,867.00	0.53	\$5,304,400.88
17	84.29	\$117,867.00	0.51	\$5,100,335.79
18	84.29	\$117,867.00	0.49	\$4,904,218.70
19	84.29	\$117,867.00	0.47	\$4,715,552.88
20	84.29	\$117,867.00	0.46	\$4,534,238.95
21			0.44	
22			0.42	
23			0.41	
24			0.39	
25			0.38	

Total Present Value

**Benefit Benefit
Cost Cost**

\$135,020,056.71
\$2,211,194.74

Net Present Value

\$132,808,861.97

Attachment: Draft Arterial Safety Analysis Study (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm St to

Pedestrian / Bicycle Safety Audit

US 41 from Commercial Drive to Guilford Road Airport Pulling Road from US 41 to Estey Avenue

Task Work Order No. 10
District-wide Safety Study and Minor Design
FPN No.: 430852-1-32-01
FDOT Contract No.: C-9945

Requested by:



Collier MPO
2885 Horseshoe Drive South
Naples, FL 34104

Sponsored by:



Florida Department of Transportation
District One Safety Office

Prepared by:

Cardno, Inc.
12481 Telecom Drive
Tampa, FL 33637

June 2015



Introduction

The Collier Metropolitan Planning Organization (MPO)'s *Comprehensive Pathways Plan*, last updated in 2012, was developed to assist the MPO's Pathways Advisory Committee (PAC) in identifying and prioritizing pedestrian and bicycle projects for funding. In the *Comprehensive Pathways Plan*, safety was identified as both an overall goal and a factor by which to evaluate projects for funding prioritization. The Collier MPO Board has voiced support for this goal as well, both in adopting the Plan and in supporting more recent planning efforts. The goal of the *Comprehensive Pathways Plan* to reduce bicycle and pedestrian fatalities and severe injury crashes is consistent with those expressed in the *Florida Strategic Highway Safety Plan*. Both the Florida Department of Transportation (FDOT) and the Federal Highway Administration (FHWA) refer to bicyclists and pedestrians as *vulnerable* road users. The action plan identifies a number of "action items" to be undertaken by responsible agencies on a short-term and long-term basis. One of the short-term action items is to conduct Pedestrian / Bicycle Road Safety Audits (RSAs) on known high-crash corridors with participation and support from all stakeholder agencies.

In February, 2014, the Collier MPO completed the *Pedestrian and Bicycle Safety Study*. The study took an in-depth look at the pedestrian and bicycle crash data for the entire County. As an outcome of this Study, the MPO and the PAC, along with the FDOT District One, selected the two high pedestrian / bicycle crash corridors of US 41 and Airport Pulling Road for further study which included conducting a formal Pedestrian / Bicycle RSA. The specific corridor limits are as follows:

- US 41 from Commercial Drive / Palm Street to Guilford Road
- Airport Pulling Road from US 41 to Estey Avenue

These corridors were selected by the MPO based on the historical pedestrian / bicycle crash data for the five year period from 2008 through 2012. The section of US 41 from Airport Pulling Road to Commercial Drive / Palm Street also ranks #5 on the FDOT District One's high crash corridor list for the entire District.

As a major stakeholder in the effort to reduce traffic fatalities and serious injuries in Collier County, the FDOT District One Safety Office commissioned the two pedestrian / bicycle corridor safety audits to be led by its safety studies consultant. The consultant was tasked with coordinating with the FDOT and local stakeholders to identify the RSA team members, collect and analyze pedestrian and bicycle crash data for each corridor, collect and analyze pedestrian and bicycle count data and perform preliminary site reviews. Subsequent to these initial activities, the consultant was tasked to assemble the RSA team and conduct a pre-site review meeting, lead the RSA field review, conduct the post-site review meeting of the RSA members and prepare the pedestrian / bicycle road safety audit report.

RSA Team

The RSA team was comprised of one or more representatives from the following agencies or organizations:

- FDOT District One Safety Office
- Collier MPO



- Collier MPO Pathways Advisory Committee
- Collier County Traffic Operations
- Collier County Transportation Planning

The Collier County Sheriff’s office was invited but unable to attend due to lack of availability of staff. A listing of individuals, by name and organization, who participated in this pedestrian / bicycle RSA, is contained in **Appendix A**.

Pedestrian / Bicycle RSA Methodology

To the extent practical, the methodology followed for the pedestrian / bicycle RSAs was consistent with the principles and procedures established by the FHWA and presented in the following publications: *Road Safety Audit Guidelines (2005)*, *Pedestrian Road Safety Audit Guidelines and Prompt Lists (2007)* and *Bicycle Road Safety Audit Guidelines and Prompt Lists (2012)*.

The road safety audit process is depicted in the figure below. Steps 1 and 2 of the process generally involve the agency owning the facility to be audited and the audit leader. Steps 3, 4 and 5 involve the audit team leader and the RSA team, with the audit team leader generally completing the audit report (Step 5). After Step 6, where the RSA team leader presents to the owner the findings and suggestions for improving the safety of the facility, it is incumbent on the owner to respond to the safety suggestions and implement those that are approved and funded (Steps 7 and 8).





The pre-audit meeting (Step 3) for the first corridor was held the morning of February 4, 2015 at the offices of the Collier County Human Resources at the Collier County Government Building. The consultant conducted a PowerPoint presentation explaining the origin and purpose of the RSAs as described above. An explanation of the RSA process followed. The consultant then presented pedestrian / bicycle count data, crash experience and some key issues for each of the two corridors that were gleaned from the data analysis and preliminary field reviews performed earlier by the consultant team. A copy of the RSA presentation is included in **Appendix B**. Finally, the consultant distributed pedestrian / bicycle RSA crash summaries and aerial graphics depicting the crashes and 11-hours of pedestrian and bicycle count data collected. Following the pre-audit meeting, the RSA team travelled to the first corridor to conduct the field review (Step 4.)

During the field review, the RSA team members gathered their input and recorded their observations. The RSA team reviewed the northern section of the US 41 corridor, from Airport Pulling Road to Commercial Drive, for several hours and then adjourned for lunch. The team reassembled and reviewed the entire Airport Pulling Road corridor in the early afternoon, where a similar field review was conducted. When the RSA team determined that their observations were complete, the team gathered at the Collier County Government Complex and collectively reviewed the issues identified at the two corridors (Step 5). Safety issues, their degree of hazard and alternative countermeasures to improve pedestrian and bicycle safety, were discussed as much as practical. At the close of the analysis meeting, the RSA team leader summarized the issues and countermeasures to obtain consensus from the team for their inclusion in the report.

The southern segment of US 41, from Airport Pulling Road to Guilford Road, was reviewed on Thursday February 5, 2015. The RSA team leader conducted the pre-audit meeting, presenting the pedestrian / bicycle count data, crash experience and key issues. The team then reviewed the remaining corridor together in a vehicle due to the rainy weather. Following the field review the team reassembled at the meeting point and reviewed the safety issues and countermeasures. At this time the team summarized all issues and suggestions for both corridors.

Data Collection and Analysis

In preparation for the pedestrian / bicycle road safety audits for the two corridors, the consultant collected pedestrian / bicycle crash data and pedestrian / bicycle movement counts. All this data was mapped on aerial photographs to be used as base maps for the field reviews.

Crash Analysis

An investigation of crashes involving either pedestrians or bicyclists was conducted for the period of January 1, 2009 through December 31, 2014. Crash information was obtained from various resources including FDOT's Crash Analysis Reporting System (CAR), the University of Florida's Signal Four Analytics database and from the Collier MPO. A summary of relevant crash data is shown in the crash summary tables for the specific study corridor. These crash summaries are included in **Appendix C**. A collision diagram of the pedestrian / bicyclist crash by location is also shown on the corridor aerials. Further discussion of the bicycle and pedestrian crashes is contained in the crash analysis section within each of the individual corridor narratives presented later in this report.



PEDESTRIAN / BICYCLE SAFETY AUDIT

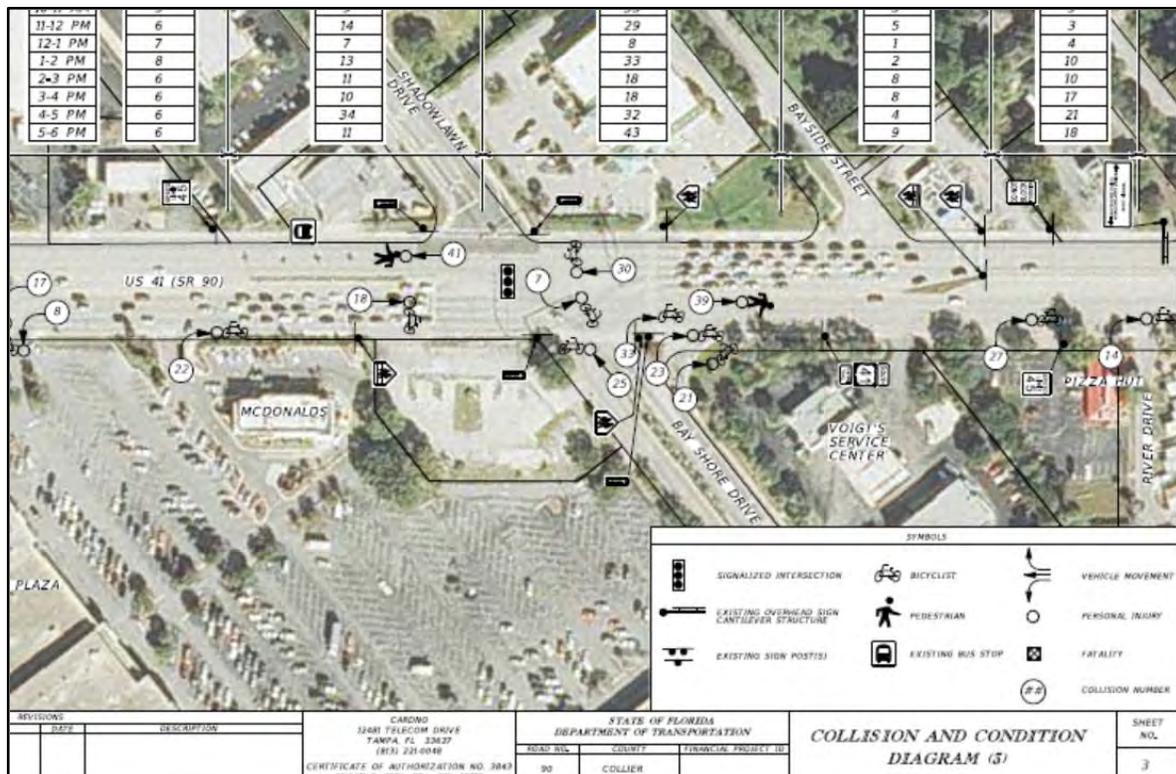
COLLIER COUNTY, FLORIDA

Pedestrian / Bicycle Movement Counts

A pedestrian / bicycle count was conducted on January 14 and 15, 2015 for 11 consecutive hours from 7:00 AM to 6:00 PM. Counts were recorded for pedestrians and bicyclists crossing US 41 and crossing Airport Pulling Road. The counts included those utilizing the signalized intersection crosswalks across the main streets and those crossing the roadways between the signalized intersections; the latter representing an unprotected mid-block crossing. The count distinguished pedestrians from bicyclists; but the represented volumes on the aerials are a combined count of both pedestrians and bicyclists. Additional counts for selected locations on US 41 (three spots) and Airport Pulling Road (one spot) were collected for the same consecutive time periods on March 3 and 4, 2015. Complete pedestrian and bicycle movement count data is contained in **Appendix D**.

Collision and Condition Diagrams

Aerial photographs of the study corridor were collected and set up as 11"x17" plan sheets. On these plans sheets were placed the pedestrian / bicycle movement counts, existing signage and collision diagrams developed from the police crash report narratives and diagrams. Pedestrian and bicyclists are also part of transit users. Transit stops are noted on the aerials and the yearly ridership numbers for the stops within the two corridors are noted in **Appendix D**. An example of the 11" x 17" collision and condition diagrams is shown below. The complete plan set for US 41 and Airport Pulling Road is included in **Appendix E**.



Attachment: 2015 FDOT Pedestrian/Bicycle Safety Audit (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm



Nighttime Review

The consultant team conducted a review of each corridor during hours of darkness to qualitatively assess the level of illumination of the intersection area, the visibility of traffic control devices, and pedestrian and bicycle activity. Safety issues observed during the nighttime review are documented in the corridor narratives.

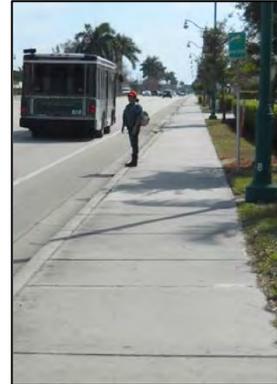


Study Corridors

Background

US 41 from Commercial Drive to Guilford Road

Besides US 41 being a high crash corridor within the County, the section from Airport Pulling Road to Commercial Drive, ranks 5th on the FDOT District One's pedestrian / bicyclist high crash list (2008-2012 crash data). US 41 is a six-lane divided urban principal arterial with a speed limit of 45 MPH. It is an urban section from Commercial Drive / Palm Street to Courthouse Shadows with curb and gutter, three 12-foot lanes westbound, three 11-foot lanes eastbound and four-foot paved shoulders. The median is curbed and landscaped and is 25 to 27-foot wide. The segment from Courthouse Shadows to Guilford Road is a six-lane divided rural section with six 12-foot lanes, four- to six-foot paved shoulders and a curbed and landscaped median 32-foot wide. There are five-foot sidewalks and decorative street lighting along US 41 on both sides throughout the study corridor. There are 11 bus stops along the US 41 study area corridor. These bus stop locations are shown on the aerials in **Appendix E**.



TYPICAL URBAN SECTION LOOKING SOUTH WITH DECORATIVE STREET LIGHTING



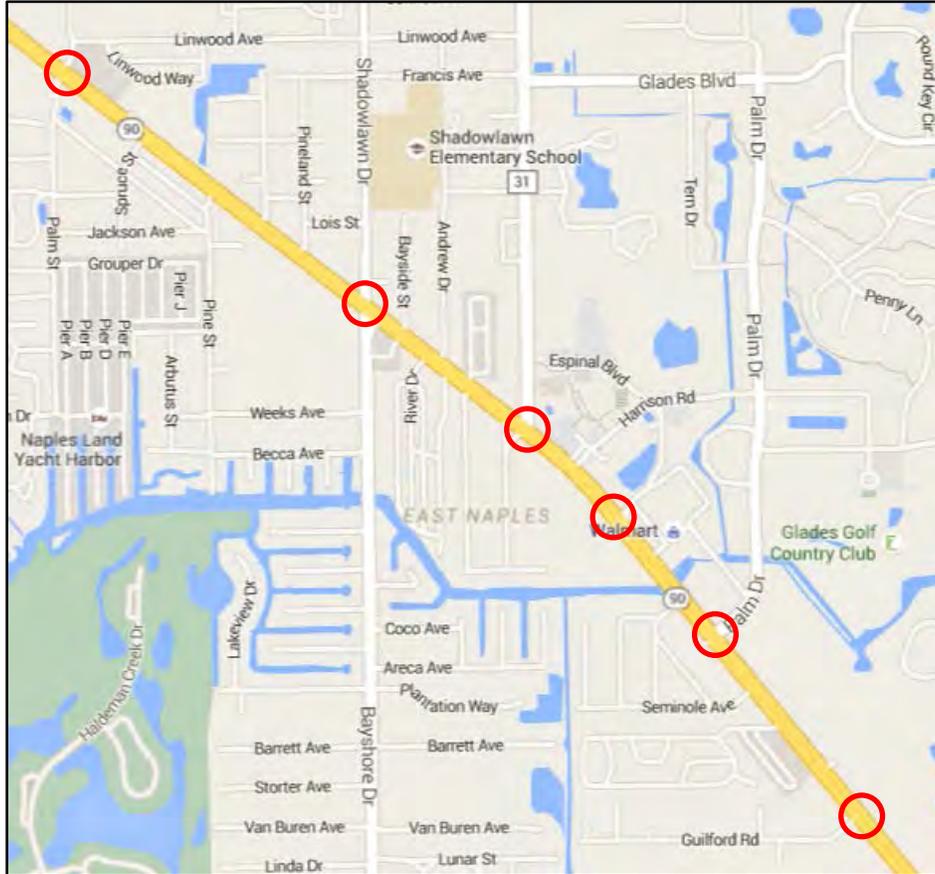
TYPICAL RURAL SECTION LOOKING SOUTH WITH STANDARD STREET LIGHTING



PEDESTRIAN / BICYCLE SAFETY AUDIT

COLLIER COUNTY, FLORIDA

There are six signalized intersections within the study corridor and the following map shows the location of each:



1. Commercial Drive / Palm Street
2. Shadowlawn Drive / Bayshore Road
3. Airport Pulling Road / Peters Avenue
4. Courthouse Shadows
5. Palm Drive
6. Guilford Road

Attachment: 2015 FDOT Pedestrian/Bicycle Safety Audit (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm



Airport Pulling Road from US 41 to Estey Avenue

The Airport Pulling Road corridor from US 41 to Estey Avenue was determined to be one of the worst crash corridors by the County. The section from US 41 to Clipper Way ranked 34th on the District One's pedestrian / bicyclist high crash list. Airport Pulling Road is a six-lane divided urban arterial and has a speed limit of 45 MPH. It is an urban section for its entire length with curb and gutter, three 10 to 11-foot lanes northbound and three 10 to 11-foot lanes southbound. The median is curbed and landscaped and is 6- to 15-foot wide. There are five-foot sidewalks on both sides and street lighting located on the west side of Airport Pulling Road throughout the study corridor. There are nine bus stops along the Airport Pulling Road study area corridor. These bus stop locations are shown on the aerials in **Appendix E**.



TYPICAL URBAN SECTION LOOKING NORTH WITH STREET LIGHTING



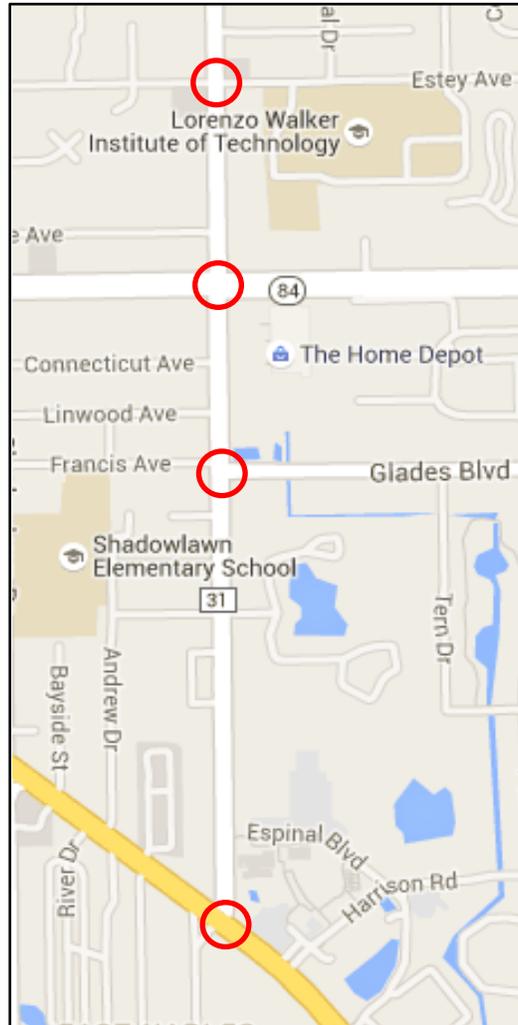
TYPICAL URBAN SECTION LOOKING SOUTH WITH STREET LIGHTING



PEDESTRIAN / BICYCLE SAFETY AUDIT

COLLIER COUNTY, FLORIDA

There are four signalized intersections within the Airport Pulling Road study corridor and the following map depicts each location:



1. US 41
2. Glades Boulevard
3. SR 84 / Davis Boulevard
4. Estey Avenue



Count Data

To truly understand the dynamics of why these two corridors are experiencing higher crash occurrences and severity than other corridors, vehicle traffic, pedestrian traffic and bicycle traffic volumes need to be known. Vehicle traffic volumes were obtained from the FDOT and County traffic monitoring sites. The daily volumes on US 41 are 39,200 and 43,000 on Airport Pulling Road. Trucks account for approximately three percent of the volume. Pedestrian and bicycle count data was obtained over 11 consecutive hours in January 2015 on a weekday from 7:00 AM to 6:00 PM. The January counts revealed that the following locations had at least four hours of 15 or more crossings per hour (pedestrian and bicycle combined) across US 41 or across Airport Pulling Road:

US 41

- Between Pelton Avenue and Pineland Avenue
- Between McDonald's and Shadowlawn Drive
- Between Shadowlawn Drive and Bayside Street
- Between River Drive and Andrew Drive
- Between Andrew Drive and Palm Lake Mobile Home Park
- Between Palm Drive and Seminole Avenue
- Between Seminole Avenue and Enchantment Boulevard

Airport Pulling Road

- Between the Courthouse and the Government Center
- Between Court Plaza and Stanford Court
- Between Calusa Avenue and Caledonia Avenue
- Between Linwood Avenue and Connecticut Avenue
- At Estey Avenue

After reviewing the initial count data and conducting the field review, additional counts were obtained for a two-day period in March for the same 11-hour time period. These locations were as follows:

- US 41 – between Pelton Avenue and Pineland Avenue
- US 41 – between River Drive and Gordon Street
- US 41 – between Seminole Avenue and Enchantment Boulevard
- Airport Pulling Road – between Court Plaza and Caledonia Avenue

Examples of pedestrian and bicyclist activity within the corridors are shown in the photographs on the next page.



PEDESTRIAN / BICYCLE SAFETY AUDIT
COLLIER COUNTY, FLORIDA



Attachment: 2015 FDOT Pedestrian/Bicycle Safety Audit (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm



There are sections of the medians on both US 41 and Airport Pulling Road with dense landscaping that impedes the pedestrian / bicycle crossings. Although the cross street and driveway crossings were not counted, there was significant pedestrian and bicycle activity observed on the sidewalks. The January count data and the adjacent land uses are shown on the aerials in **Appendix E**.

Crash Analysis

An investigation of crashes involving either pedestrians or bicyclists was conducted for the period of January 1, 2009 through December 31, 2014. Crash information was obtained from FDOT CARs, University of Florida's Signal Four Analytics database and from the Collier MPO. Since there is a lag in receipt of crash data, the 2014 data is considered incomplete for the purposes of this study.

There were a total of 72 crashes involving pedestrians and bicyclists within the study limits of US 41 and Airport Pulling Road; 48 crashes on US 41 and 24 crashes on Airport Pulling Road. There were 70 injuries and 2 fatalities; 1 pedestrian fatality and 1 bicyclist fatality. Only one crash did not result in an injury which emphasizes the vulnerability of pedestrians and bicyclists in this corridor. Pedestrian crashes accounted for 11 crashes (15 percent) with bicycle crashes totaling 61 (85 percent). The crashes were reviewed for occurrences by month, day of week and time of day. The crashes are typically occurring between 10:00 AM and 6:00 PM, Sunday and Wednesday crashes are less than the other days and November to March are typically higher than the other months. The complete breakdown is included in **Appendix C**. The following summarizes characteristics of the crashes:

- 71 percent involved males / 29 percent involved females (pedestrian and bicyclist)
- 79 percent daytime / 21 percent night-time.
- 97 percent dry roadway conditions / 3 percent wet pavement
- 11 percent of the crashes involved alcohol - all occurred on US 41
- Average age of the pedestrians and bicyclists involved in a crash was 49 on US 41 and 38 on Airport Pulling Road.

Since both bicyclists and motorists are often unaware of the laws regarding who has the right-of-way and the proper driving / riding behaviors on differing facilities, the crashes were reviewed to determine the at-fault party. When a bicyclist is riding in the roadway, it is considered a vehicle and must adhere to the rules of the road. Therefore, a bicyclist riding against the traffic flow or the wrong way is at-fault when colliding with a vehicle. Also, a bicyclist is required to have a light on his/her bicycle during night-time riding to be visible to motorists.

Bicyclists are permitted to ride on the sidewalk and have the same rights as a pedestrian when on the sidewalk unless there is a local ordinance stating otherwise. Florida Statute **316.2065 (10)** states *"A person propelling a bicycle upon and along a sidewalk, or across a roadway upon and along a crosswalk, shall **yield the right-of-way to any pedestrian** and shall give an audible signal before overtaking and passing such pedestrian. Bicycles can be legally operated on all Florida sidewalks and crosswalks unless a local ordinance prohibits it. When on a sidewalk, the operator is operating a vehicle and must use helmets and lights when required, and is subject to the DUI laws. Otherwise, the operator has the rights and duties of a pedestrian,*



but must yield to all pedestrians". Therefore, a motorist entering or exiting a driveway or an unsignalized cross street must yield to both a pedestrian and a bicyclist that is traveling on the sidewalk.

At times a crash report will be listed with neither party cited at-fault due to conflicting statements. Other times the pedestrian or bicyclist will be cited by the police officer as at-fault when by law the motorist is at-fault. This can be attributed to insufficient training on bicycle laws. This exemplifies how critical additional education is needed for both enforcement agencies and for the public concerning bicycle and pedestrian laws. Based on the traffic laws, the following was determined from the crash reports:

- 57 percent of the crashes the motorist was at-fault
- 28 percent of the crashes the bicyclist was at-fault
- 15 percent of the crashes the pedestrian was at-fault

When considering crash countermeasures it is important to understand the characteristics and demographics of the parties involved to maximize the effectiveness of the measures. Of the 44 crashes that the pedestrian's or bicyclist's race was identified on the crash report, 27 (61 percent) were listed as Hispanic. Based on the 2013 census data, 26.3 percent of the Collier County residents are Hispanic or Latino.

A review of all the crash data indicates that 37 of the 72 crashes (51 percent) occurred at a driveway, 23 (32 percent) at a signalized intersection and 12 (17 percent) were mid-block crashes. A closer look at the crashes by corridor revealed the following:

US 41 – 48 crashes

- Nine (19 percent) pedestrian crashes / 39 (81 percent) bicycle crashes
 - **Of the nine pedestrian crashes:**
 - three were under the influence
 - seven night-time / two daytime
 - seven male / two female
 - eight pedestrian at-fault / one driver at-fault
 - one fatal crash / eight injury crashes
 - five crossed US 41 mid-block / three crossed at signal / one crossed a driveway
 - All five mid-block crashes were at night
 - All three signal location crashes did not cross with the pedestrian signal
 - driveway crossing crash was dark / unlit
 - **Of the 39 bicycle crashes:**
 - four were under the influence
 - seven night-time / 32 daytime
 - 30 male / 9 female
 - 23 driver at-fault / 16 bicyclist at-fault
 - one fatal crash / 37 injury crashes / one property damage only crash
 - 22 crossed a driveway / 14 crossed at signal / 3 crossed US 41 mid-block



- **Of the 22 bicycle driveway crashes:**
 - seven in bike lane / 15 on sidewalk
 - five of seven in bike lane were riding the wrong way
 - 9 of 15 bicycles on sidewalk were traveling in opposite direction of traffic / six were traveling with traffic
- **Of the 14 bicycle crashes at a signal:**
 - 12 day-time / two night-time
 - five of the 14 bicycle crashes at a signal were the fault of driver, eight fault of bicyclist and one unknown
 - two of the driver at-fault crashes were at night and the bicyclist did not have a bicycle light
 - seven of the bicycle crashes at a signal involved a motorist making a right-turn, four a left-turn and three driving straight

Based on the detailed data analysis of crashes on US 41, bicycle crashes are more predominant than pedestrian crashes. The pedestrian crashes on US 41 typically involve males, crossing mid-block at night and often under the influence of alcohol. The pedestrian crashes occurring at the signals are attributed to pedestrians not using the pushbuttons or failing to wait for the pedestrian signals before crossing the intersection.

The bicycle crashes are typically occurring during daylight hours with males riding on the sidewalk and being struck while crossing a driveway. The bicyclist is more often approaching from the driver's right but there is a pattern of crashes with bicyclists approaching from the driver's left also. The bicycle crashes occurring in the bike lane were typically bicyclists traveling the wrong way. The bicycle crashes at a signal were typically daytime crashes involving a right-turning vehicle and more often the fault of the bicyclist. Overall, crash conflicts involving a turning vehicle occurred significantly higher on the south side of US 41 than on the north side; 23 crashes versus seven.

Airport Pulling Road – 24 crashes

- Two (8 percent) pedestrian crashes / 22 (92 percent bicycle crashes)
 - **Of the two pedestrian crashes:**
 - one night-time / one daytime
 - one male / one female
 - two pedestrian at-fault
 - two injury crashes
 - two crossed Airport Pulling Road mid-block
 - both pedestrians at-fault - failed to yield right-of-way
 - one occurred north of Glades Boulevard, one occurred south of Home Depot
 - **Of the 22 bicycle crashes:**
 - two night-time / 20 daytime
 - 13 male / nine female
 - 18 driver at-fault / four bicyclist at-fault
 - zero fatal crashes / 22 injury crashes / zero property damage only crashes



- 14 crossed at a driveway / six crossed at signal / two crossed Airport Pulling Road mid-block
 - **Of the 14 bicycle driveway crashes:**
 - all 14 were traveling on the sidewalk
 - 11 were traveling in the opposite direction of traffic flow / three with traffic flow
 - **Of the six bicycle crashes at a signal:**
 - five day-time / one night-time
 - four of the six bicycle crashes at a signal were the fault of the driver, two fault of bicyclist
 - four of the bicycle crashes at a signal involved a motorist making a right-turn on red, one a left-turn and one driving straight

The detailed analysis of the Airport Pulling Road crashes concludes that bicycle crashes are significantly higher than pedestrian crashes. The bicycle crashes are more often occurring during the day with males riding on the sidewalk, crossing a driveway and approaching from the driver's right side. The crashes occurring at the signals are primarily motorists turning right on red and failing to yield to the pedestrian's right-of-way. Overall, crash conflicts involving turning vehicles on Airport Pulling Road occurred more often on the east side of Airport Pulling Road; 15 crashes versus five.

A comprehensive list and description of each crash and the pedestrian / bicycle crash summary are contained in **Appendix C**. The following section provides a description of the two fatal crashes and a discussion of the locations along each corridor that appear to have a pattern of crashes.

Crash Locations

US 41 Fatal Crashes

The one fatal pedestrian crash occurred on March 9, 2010 at 9:33 PM in the vicinity of the signalized intersection of US 41 and Airport Pulling Road. Two female pedestrians, aged 20 and 22, crossed from the north to south side of US 41 just east of the marked crosswalk located on the east leg. Both pedestrians were struck by an eastbound motorist, age 19, having the right-of-way and traveling with the green signal. The motorist fled the scene so we do not know if alcohol was involved. During the nighttime field review this intersection was observed to be poorly lit.

The second fatal crash occurred on September 14, 2013 at 1:08 PM. A 59 year-old female bicyclist was crossing mid-block southbound across the westbound lanes of US 41, west of Pine Street, and was struck by an 82 year-old driver traveling westbound who had the right-of-way.

Near Pine Street

There were 10 crashes on US 41 in the vicinity of Pine Street. Three of the crashes were bicycle crashes occurring at Pine Street when a motorist turning right onto Pine Street struck a bicyclist crossing Pine Street. Two of the bicyclists were traveling in the road, one wrong way, and one was traveling on the sidewalk. One crash occurred at night. The remaining seven crashes occurred west of Pine Street in the vicinity of the Tire Kingdom on the north side and the Pet



Supermarket on the south side. There is a large mobile home community a few blocks south off of Pine Street. One of the crashes was the bicycle fatality previously discussed. There were four bicycle crashes (three riding on the sidewalk and one in the bike lane) at driveways; two collided with a right-turn vehicle exiting the driveway, and two with a right-turn vehicle entering a driveway. There were also two pedestrian crashes involving pedestrians traveling across US 41, north to south, struck by an eastbound motorist on US 41. Both of the pedestrian crashes involved alcohol and occurred at night. The pedestrian and bicycle count data indicated volumes ranging between zero and 10 per hour crossing US 41 in this area. This was not one of the higher volume crossing locations.

Between Pelton Avenue and Shadowlawn Drive

The approximately 1,200 foot section of US 41 between Pelton Avenue and Shadowlawn Drive had 13 bicycle crashes and three pedestrian crashes. This section of US 41 experienced higher pedestrian and bicycle volumes throughout the day crossing US 41; 363 pedestrians and bicyclists were counted during the 11-hours. Seven bicycle crashes occurred west of the Shadowlawn Drive signal with three crashes involving vehicles exiting driveways and two crashes with left turns entering driveways. There was also a crash with a bicyclist crossing US 41 near Pelton Avenue. One nighttime pedestrian crash occurred when a right-turning vehicle exiting a driveway struck a pedestrian crossing the driveway. There is a Wendy's on the north side and the Gulf Gate Shopping Plaza on the south side in this vicinity.

US 41 at Shadowlawn Drive

At the Shadowlawn Drive signalized intersection there were nine crashes. Two of the crashes, one pedestrian and one bicycle, occurred on the west leg where there is currently no crosswalk. The bicycle crash involved alcohol. It is important to note that there is a bus stop located 150 feet downstream on the north side, west of Shadowlawn Drive. If a pedestrian were to exit the bus and want to cross US 41 to the McDonald's on the south side, he / she would need to cross three signalized legs of the intersection to travel across the street.

There was a significant volume of pedestrians and bicyclists crossing the east leg of US 41 at Shadowlawn Drive; 364 during the 11-hour count period. There were five bicycle crashes that occurred on Bayshore Drive; three involving a northbound right-turning vehicle, one with a southbound left-turning vehicle and one with a westbound through vehicle. Three crashes were due to the turning vehicles not yielding the right-of-way and the other two the bicyclists crossed during the wrong signal phase. It's important to note that the northbound right-turn lane is channelized which contributes to poor visibility of pedestrians and bicyclists for drivers. One bicycle crash occurred across the south leg of Bayshore Drive when the bicyclist crossed with the wrong signal phase. A pedestrian was struck when he crossed 100 feet east of the intersection in dark conditions when the eastbound motorist had the green signal.

Between Bayside Street and Gordon Street

The count data indicates significant pedestrian and bicycle activity in the section of US 41 between Bayside Street and Gordon Street; 479 pedestrian and bicycle crossings. There were eight bicycle crashes and two pedestrian crashes in this section of US 41. All eight bicycle crashes involved a right-turning motorist striking a bicyclist crossing a driveway or side-street and all occurred on the south side of US 41. Two crashes occurred at Bamboo Drive and four occurred at Gordon Street. Seven of the eight bicyclists were traveling from the driver's right side so the driver was looking to the left for a gap in traffic and did not see the bicyclist



approaching. It is also important to note that the driveways / cross streets intersect US 41 at an angle, further reducing the driver's visibility of approaching pedestrians or bicyclists from the right. Two pedestrian crashes occurred near Andrew Drive when a pedestrian crossed US 41, from south to north, and was struck by a westbound motorist. One of the pedestrian crashes involved alcohol and one occurred in dark conditions.

US 41 at Airport Pulling Road / Peters Avenue

Five crashes occurred at the signalized intersection of US 41 and Airport Pulling Road; four bicycle crashes and one pedestrian crash. The pedestrian crash was the fatality described earlier in this section of the report. The bicycle crashes occurred as follows; one involved a bicyclist crossing the north leg and three were crossing the south leg. Two involved drivers turning right that did not yield to the bicyclists in the crosswalk.

Airport Pulling Road Corridor

Of the 24 crashes that occurred on Airport Pulling Road, 22 were bicyclists and two were pedestrians. Eighteen (82 percent) of the 22 bicycle crashes involved a right-turning motorist colliding with a bicyclist. The following breaks down these occurrences by location:

- Collier Government Center driveway – two bicycle crashes; traveling from the right on the sidewalk; motorists turning right onto Airport Pulling Road.
- Court Plaza driveway – four bicycle crashes; three of the four approaching from the right on the sidewalk; one from the left; motorists turning right onto Airport Pulling Road.
- Great Blue Drive – one bicycle crash; approaching from the right on the sidewalk; motorist turning right onto Airport Pulling Road.
- Caledonia Avenue – one bicycle crash; approaching from the right on the sidewalk; motorist turning right onto Airport Pulling Road.
- St. Matthew's House driveway – one bicycle crash; approaching from the right on the sidewalk; motorist turning right onto Airport Pulling Road.
- Glades Boulevard – signalized intersection; one bicycle crash; approaching from the right in crosswalk; motorist turning right onto Airport Pulling Road.
- Home Depot driveways – three bicycle crashes; two right-turning vehicles exiting driveway and one left-turn vehicle entering the driveway; two bicyclists approaching from the right on the sidewalk and one from the left.
- Davis Boulevard (SR 84) – signalized intersection; one bicycle crash; approaching from the left in crosswalk; motorist turning right onto Airport Pulling Road.
- Walgreens driveway – one bicycle crash; approaching from the right on the sidewalk; motorist turning right onto Airport Pulling Road.
- Promenade Plaza driveway – one bicycle crash; approaching from the right on the sidewalk; motorist turning right onto Airport Pulling Road.
- Estey Avenue – signalized intersection; three bicycle crashes; two southbound right-turning vehicles collided with bicyclists in crosswalk; one northbound left-turning vehicle collided with bicyclist in crosswalk.
- Linwood Avenue – two pedestrian crashes traveling across Airport Pulling Road east to west near bus stop located on the east side.
- Mid-block bicycle crashes – one near Thrift Store with bicyclist traveling east to west; one near Calusa Avenue with bicyclist traveling east to west.



driveways along both corridors. During the field review it appeared that the majority of the pedestrians and bicyclists were in their 20's or early 30's although the average age of the crash victims was late 30's early 40's. The sidewalks were not wide enough for both pedestrians and bicyclists since our Team often found ourselves having to move over for bicyclists. The majority of the bicyclists and pedestrians appeared to be residents with specific destinations as opposed to tourists visiting and unfamiliar with the area.

It is anticipated as the Naples area continues to grow so will the Hispanic community. According to the census bureau, between April 2010 and July 2013 Collier County's population grew by 5.6 percent. During that same three-year period, the County's Hispanic population grew by 6.7 percent. The crash review summary earlier noted that where pedestrian / bicyclist race was noted, Hispanic accounted for 61 percent of the crashes. The pedestrian and bicycle crashes could potentially increase with increases in both vehicle and pedestrian / bicycle volumes along these corridors.

Pedestrians and bicyclists were observed crossing various locations along both US 41 and Airport Pulling Road. The bicyclists often crossed in the directional left-turn lanes in the median. The pedestrians at times ran across the roadway, other times they waited in the medians and at one time an elderly woman was walking along the median in the roadway since the landscaping kept her from finding refuge in the median.

Location: Corridor Wide Issues

Issue: High Volume of Pedestrians and Bicyclists versus High Volume and Speeds of Motorists

Description of Safety Issue:

Both US 41 and Airport Pulling Road are major arterials in the Naples / Collier County area. Considering the (1) crash data, both the number of crashes and the severity, (2) the count data and (3) the field observations, the pedestrians and bicyclists are truly "vulnerable" users under the existing conditions. These roadways are posted at 45 MPH. The bicyclists are riding primarily on the sidewalks since they feel safer than riding in the roadway. The FDOT Roadway Design Bulletin 14-17 approved in November 2014 states that a 45 MPH roadway in an urban area shall have 7-foot buffered bicycle lanes with 11-foot through lanes. Context-sensitive design is needed when applying these design criteria. Since the right-of-way restricts a 7-foot buffered bicycle lane other options need to be considered to provide a pedestrian and bicycle friendly environment.

Although mid-block crashes were not the most prevalent type of crash, the field review and count data indicate that mid-block crossings are a concern with the current roadway characteristics. Traffic calming measures can generally be separated into three groups based on the goal they are trying to achieve: speed control, volume control, and safety enhancement. Since these corridors do not lend towards decreasing the number of travel lanes or decreasing the volumes to reduce the potential for conflicts, it is not unreasonable to reduce the speeds to provide for a safer and friendlier multi-use roadway. It is anticipated that not only would the pedestrian and bicycle crashes and severity be reduced with traffic calming measures but the vehicle-vehicle conflicts and severity could also be reduced with the implementation of traffic calming measures. The additional benefit of pedestrian friendly roadways is enhanced economic development.

Suggestion (Short-term):

- Speed feedback signs – Radar signs have proven effective in slowing down traffic; particularly effective on high volume arterials and highways.
- Pedestrian and bicycle enforcement – FDOT has grant funds available for high crash locations to conduct pedestrian and bicycle enforcement for all road users and can distribute educational material of the laws during the enforcement campaigns.
- Implement police bicycle patrols – Bicycle patrols promote a connection of the multi-modal use throughout the corridor thereby raising awareness and respect for all traffic laws. Bicycle patrols do not necessitate adding officers but can train existing ones and switch from a vehicle patrol to a bicycle patrol.

Suggestion (Mid-term):

Consider installation of the Pedestrian Hybrid Beacon (PHB), commonly known as the HAWK (High Intensity Activated Crosswalk), to provide a controlled crossing for pedestrians and bicyclists that are crossing in-between signalized intersections. The photo below shows a rendering of a proposed mid-block crossing location in Tampa for a similar six-lane divided facility. The beacons are dark until activated and then the following sequence ensues:

1. DRIVER – flashing yellow
PEDESTRIAN – DON'T WALK
2. DRIVER – solid yellow
PEDESTRIAN – DON'T WALK
3. DRIVER – solid red
PEDESTRIAN – WALK
4. DRIVER – flashing red
PEDESTRIAN – flashing DON'T WALK
5. DRIVER – dark
PEDESTRIAN – solid DON'T WALK





The following locations were selected for consideration of a PHB based on the FDOT Traffic Engineering Manual Section 3.8 requirements for mid-block pedestrian crosswalks, the pedestrian and bicycle count data collected, the field review and proximity to existing signalized intersections.

- US 41 at Pelton Avenue – This location is 2,200 feet east of Commercial Drive and 1,050 feet west of Shadowlawn Drive / Bayshore Drive. There were two crashes crossing US 41; one bicycle and one pedestrian.
- US 41 at Andrew Drive – This location is 780 feet east of Shadowlawn Drive / Bayshore Drive and 800 feet west of Airport Pulling Road. There were two crashes with pedestrians crossing US 41.
- Airport Pulling Road between Calusa Avenue / Great Blue Drive and Caledonia Avenue – This location is 760 feet south of Glades Boulevard and 2,100 feet north of US 41. There was one bicycle crash crossing US 41, just south of Calusa Avenue.

Suggestion (Long-term):

- Typical Section – On US 41, reduce all lanes to 11-foot and remove the four-foot shoulders. The FDOT Roadway Design Bulletin 14-1, (FHWA Approved: November 18, 2014) “concluded, though, based on FDOT Central Transit Office research titled “Integrating Transit into Traditional Neighborhood Design Policies – The Influence of Lane Width on Bus Safety” that the minimum acceptable lane widths for transit operations to avoid crashes and perform turning maneuvers safely is 11 feet.”
- Extend the curb to widen the sidewalk to provide for both pedestrians and bicyclists. On Airport Pulling Road where the lanes are already 10 to 11 feet wide, widen the sidewalk to the inside into the utility strip and to the outside to the right-of-way wherever possible.
- Gateway – A gateway is a signing and / or landscaping treatment to alert motorists that they are entering a special area or a busy place of activity. With narrower travel lanes and wider sidewalks for the pedestrians and bicyclists, the installation of a Gateway at either end of the US 41 project limits and at the north end of the Airport Pulling Road limits would communicate to motorists that they are entering a special area with high pedestrian and bicycle activity and to drive accordingly.
- Textured and colored pavement — Textured and colored pavement can alert drivers that they are traveling in a pedestrian zone. ADA also recommends the option of installing concrete sidewalks with brick trim, which preserves the decorative quality of brick but is an easier surface to negotiate than all brick pavers. Although colored or stamped brick is preferred over pavers this option can create a bumpy surface for disabled users. The surface texture should be vibration free.
- Narrow driveways – Wide driveways promote higher speeds and less control when entering or exiting. Those driveways that are excessively wide should be reduced in width. Others that are wide due to median



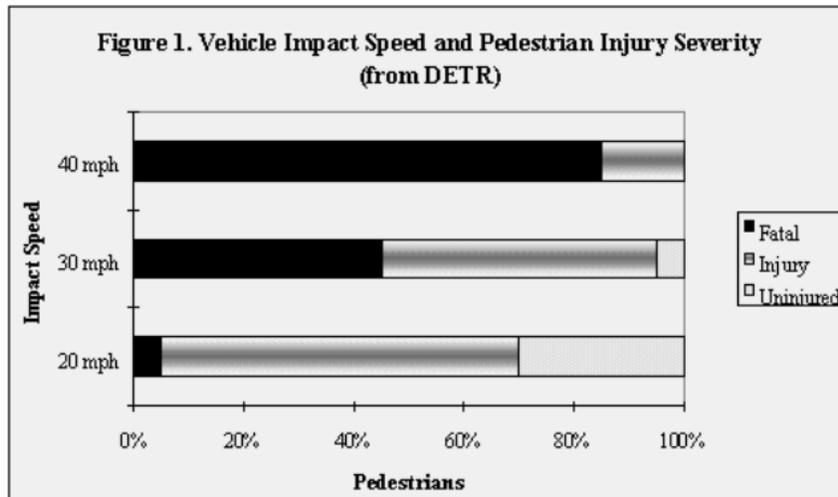


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landscaping or decorative signing can be modified to include refuge areas to minimize the areas of exposure to pedestrians.

- Reduce corner radii – Reducing the corner radii slows turning vehicles when entering and exiting the main street. This promotes pedestrian safety, improves motor vehicle and pedestrian sight distances, and shortens pedestrian crossing distances. This is recommended at side streets / driveways that do not have regular truck traffic.
- Reduce speed limit to 35 MPH – Modifying the “look” of the corridor to emphasize the multi-use characteristics along with controlling speeds by design with tighter turning radius and narrower lanes will aid in slowing motorists down. This will assist in driver reaction times, not only for pedestrians and bicyclists, but also for reducing vehicle-vehicle collisions. Reducing speeds will reduce the probability of a pedestrian fatality. The study graphic below shows the relationship between vehicle speed and pedestrian injury. A reduction of speed from 40 MPH to 30 MPH shows a reduction in the probability of a pedestrian fatality from 80 percent to 40 percent.



Source: UK Department of Transport Traffic Advisory Leaflet 7 / 93 (TAU, 1993)

Issue: Stop Controlled Side Street Motorists not Observing Approaching Bicyclists

Description of Safety Issue:

The crash data indicates that 47 percent of the 72 crashes occurred at a driveway / stop controlled side-street and 97 percent of those involved a bicyclist, and another 82 percent of the bicyclists were approaching from the driver's right. It is clear that corridor-wide countermeasures are needed to reduce these types of crashes. The STOP sign controlled locations, streets and driveways, are primarily right-turn only since there are raised medians along both corridors. Many of the side streets intersect US 41 at a skew such that the driver's line of sight is toward the left. Since STOP bars and STOP signs are typically set back from the intersecting roadway, the drivers were observed pulling up into the path of the marked or unmarked crosswalk to see the approaching traffic from their left. At this point the driver does not see the pedestrians / bicyclists coming from their right and are also typically not anticipating anyone from the right either.

There are side street approaches with physical obstructions of landscaping and / or signs that impede a driver's view of pedestrians / bicyclists on the sidewalk. Although by law the bicyclist has the same right-of-way as the pedestrian walking on the sidewalk and the drivers are for the majority at-fault in these situations, both engineering and non-engineering countermeasures need to be considered.



The conflicts, as exhibited in the crash data and the field review, are more prevalent for the bicyclists than the pedestrians. This is due to the higher speeds of the bicyclists which place them in the driver's line of sight at the point when they are right at the crosswalk. This is too late for the motorist to react. Additionally, there were observations of side street motorists not coming to a complete stop before turning right onto the main street.

Suggestion (Short-term):

Ensure there are no physical obstructions such as signs or landscaping blocking the view to the left and right for vehicles leaving the side streets. FDOT Design Index 546 shows guidelines for clear sight development and maintenance at intersecting highways, roads and streets. Review and revise County ordinances / design standards to ensure clear sight distances are incorporated into designs. This needs to include signs and landscaping in the medians in addition to at driveways / streets.



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Develop a warning sign to alert drivers of approaching pedestrians / bicyclists on the sidewalk. A sign to be mounted for sidewalk users could also be developed and placed on the sidewalk to warn pedestrian/bicycle users of turning vehicles. These signs could be installed at locations that have a crash history.



Use enforcement for high crash side street / driveway locations to ensure motorists are stopping at side streets and as a means to provide educational material to drivers of the law regarding yielding to bicyclists and pedestrians in the crosswalk.

Although the bicyclist by law has the right-of-way on the sidewalk, educating them of the safety benefits of riding with traffic and making eye contact with the motorist before crossing a driveway will aid in reducing these crashes.

Suggestion (Mid-term):

Install a bicycle presence actuated bicycle sign at designated high crash locations with a message to look both directions so as to warn motorists that a bicyclist is approaching. Similar type signs have been used for visibility issues at tunnels, parking garages, bridges and trail crossings as shown below. Before and after studies of compliance and motorist behavior needs to be reviewed prior to any permanent installations.



Install a test location for a speed bump for a street / driveway that has crashes and observed non-compliance with stopping such as at the Government Center. A low-profile option that comes in 6-foot lengths by 4-inches wide by 1/2-inch high is recommended. Before and after driver behaviors need to be documented for effectiveness.



Access Management – Fewer conflict points reduce the potential for crashes. With 64 driveways along US 41 and 44 along Airport Pulling Road, or an average of 36 per mile, consolidating several driveways into a single entrance can improve bicycle, pedestrian and motorist safety by limiting the number of conflict points. The FDOT Driveway Information Guide states: “Sharing driveways and providing cross parcel access has two benefits. The first minimizes the number of driveways on the arterial road. Providing cross access between properties broadens the access choices for the driver.”

Issue: Stop Sign Controlled Side Street Crosswalk Markings



Description of Safety Issue:

The side street crosswalks are marked with two diagonal white stripes. Most of these markings are worn away and not readily visible by drivers.

Suggestion (Short-term):

Per the FDOT Memo 01-12 for High Emphasis Crosswalk Markings, “Special Emphasis Crosswalk Markings may also be used as a safety countermeasure to address locations with high pedestrian crashes, volumes, or concentrations of children or seniors.” Given the high pedestrian and bicycle volumes along this corridor and crashes, high emphasis crosswalks need to be considered or the textured / colored pavement to alert approaching side street traffic of potential pedestrian / bicyclist traffic and also highlight the stop point for the drivers before moving forward to view oncoming traffic. The textured colored pavement could aid in slowing down bicyclists also.



Issue: Nighttime Review Observations

Description of Safety Issue:

The consultant team conducted a review of each corridor during hours of darkness to qualitatively assess the level of illumination of the intersection area, the visibility of traffic control devices, and pedestrian and bicycle activity. US 41 street lighting is located on both sides throughout the study corridor. The western segment (urban section) has decorative street lighting located at the back edge of the sidewalks. The decorative lights only extend out over the sidewalk and edge of the roadway and the illumination is limited due to their design. It was noted that the glass covers are discolored (not clear) which impacts the illumination levels. The low light output and faded pavement crosswalk markings impact the nighttime visibility of pedestrians and bicyclists on the sidewalks and roadway in this segment of US 41.

The eastern segment of US 41 (rural design) has the typical cobra head roadway lighting. These lights extend out over the roadway more than the decorative lights in the western segment. The roadway has better illumination because the light poles are located toward the roadway. The sidewalks in this segment are not located at the roadway edge but generally follow the edge of the right-of-way. This layout puts the sidewalk users behind the street lighting. The visibility of pedestrians and bicyclists in the crosswalks was better in this segment but those crossing the side streets were generally in a darker situation.

There are cobra head luminaires along the west side of Airport Pulling Road and the sidewalk is located adjacent to the roadway in the study section. This places the sidewalk users within the illumination area enhancing their visibility.

A lighting analysis was conducted in March 2015 and determined that the light levels averaged 0.37 foot-candles (FC) on US 41 with spot readings in the range of 1.0-1.5 FC on the north side in the eastern segment. Airport Pulling Road had an average illumination of 0.66 FC with readings of 1.5-2.0 FC in spots along the west side where the light poles are located. The FDOT conventional roadway lighting requirements are an average initial horizontal foot-candle of 1.5 FC for major arterials. Based on this requirement, these corridors could benefit with increased illumination.

Suggestion (Mid-term):

The traffic count data and the RSA team verified that there is significant pedestrian / bicycle activity during hours of darkness, suggesting that optimal illumination of the roadways and pedestrian walkways is desired to improve visibility and safety. With the utility poles located on the west side of Airport Pulling Road, there is the option of installing utility adjustment poles that have a 45-degree angled arm to provide the separation from the power lines while being able to reach the roadway area needing illumination. A photo of this type of installation is included to the right. On US 41, an analysis of the wattage being used in the decorative poles is needed to





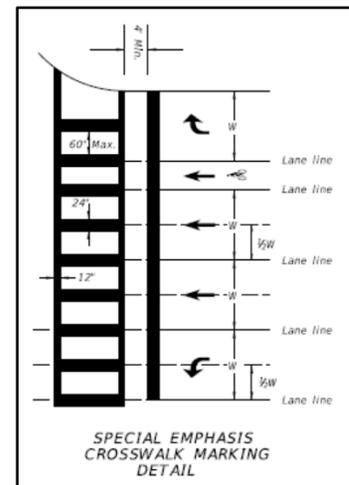
determine if the decorative poles can be utilized to meet the FDOT requirements. The signalized intersections also need to be upgraded with luminaires on each corner to provide enhanced illumination of the crosswalks.

Location: Specific Intersection Issues

Signalized Intersections

Given the incidence of pedestrian and bicycle crashes occurring at the signalized intersections, systemic safety measures need to be considered for each location. Although signalized intersections are often considered safer crossings than mid-block unsignalized crossings due to the signalized control, the pedestrian signals and the slower speeds of motorists, the number of conflicting vehicle movements can make a pedestrian crossing at a signalized intersection daunting. The following suggestions are proven measures to reduce crashes and should be considered at all the signalized intersections:

- Implement a Leading Pedestrian Interval (LPI) – LPIs give pedestrians a three to seven second head start when entering an intersection with the concurrent green signal. This improves the driver's visibility of pedestrians and bicyclists in the intersection and reinforces the pedestrian's right-of-way over turning vehicles, especially in locations with a history of conflict. LPIs can be used for longer crossings when the associated vehicle crossing time is not long enough to cover the time required for pedestrians to cross.
- Implement Rest in Walk and Pedestrian Recall on minor side street pedestrian phases (concurrent with major street traffic) – A recent study indicated significant improvement in pedestrian and bicyclist compliance rates for using pedestrian signals properly when Rest in Walk and Pedestrian Recall were present at crossings. Rest in Walk displays a WALK indication for minor street crossings from the onset of the major street green until the yield point in the coordination cycle. Pedestrian Recall provides a WALK signal for the pedestrians without having to press the pushbutton.
- High emphasis crosswalk pavement markings – All crosswalks at signalized intersections should be marked with the high emphasis markings.
- Separate the pedestrian pushbuttons – Separate pushbuttons on a corner benefit the disabled in knowing which button is for which crosswalk. The separation also makes it easier for the non-disabled to find the correct pushbutton and reduces the incidence of unnecessary pedestrian actuations. The MUTCD clearly states the buttons should be separated by at least 10 feet unless there are physical constraints.





US 41 and Commercial Drive / Palm Street

Issues: Location of Crosswalk

Description of Safety Issues:

The crosswalk across the south leg of Palm Street is currently approximately 100 feet and does not have a clear sight line for a northbound right-turn motorist that may be looking to their left to make a right on red while a pedestrian is traveling west from the southeast corner. Moving the crosswalk closer to the northbound approach will not only improve the driver's visibility of the pedestrians / bicyclists but will also reduce the crossing length by 20 feet.



US 41 and Shadowlawn Drive / Bayshore Road

Issues: Configuration of Raised Island and Orientation of Corner-to-Island Crosswalk; Missing Crosswalk; Location of Pedestrian Signal

Description of Safety Issues:

The northbound (Bayshore Drive) to eastbound US 41 right turn lane is a channelized right-turn lane that is not controlled by the traffic signal and is separated from the through lanes by a raised island. This vehicular movement is regulated by a YIELD sign located near the merge point with US 41. The YIELD condition and the large turning radius encourage higher turning speeds. When traffic is moving east-west on US 41, drivers approaching on Bayshore Drive look to their left to determine if there is a gap for them to merge onto US 41. The crosswalk across the channelized right-turn lane is not controlled and is situated such that the driver's line of sight is to the left, similar to the issues at the driveways. There were three bicycle crashes at this channelized right-turn lane. The channelized right-turn lane designs typically also exhibit higher incidence of rear end vehicle crashes due to the restricted sight lines. There were also two pedestrian and three bicycle crashes within the intersection in which the pedestrian and bicyclist did not yield the right-of-way to a motorist. Three occurred during night-time conditions.



The lack of a crosswalk on the west leg not only requires pedestrians to travel unnecessary lengths to get across the street but also creates a concern for those that cross without a pedestrian signal. The pedestrian signal in the northwest corner for the crosswalk across the north leg is set so far from the crosswalk (25 feet) that a pedestrian was observed pushing the button thinking it was provided to cross the west leg.

**Suggestion (Short-Term):**

- Consider installing a crosswalk across the west leg of US 41.
- Consider relocating the pedestrian signal for the north leg closer to the crosswalk.
- Consider installing high emphasis crosswalk marking across all legs of the intersection.
- Consider installing TURNING VEHICLES YIELD TO PEDESTRIANS / BICYCLISTS signs (R10-15 modified) overhead. This will remind motorists of their obligation to yield to pedestrians and bicyclists within the crosswalk.

Suggestion (Mid-term):

Consider removing the northbound right-turn island, reducing the turning radius and signaling the right-turn lane and providing pedestrian signalization across the entire south leg of Bayshore Drive. With the signalization consider a northbound right-turn overlap phase for operational efficiency. Install a U-TURN YIELD TO RIGHT TURN sign (R10-16) overhead for the concurrent westbound U-turn phase to maintain operations of both movements. The right-turn lane would be designed and signal controlled and look similar to the southbound right-turn lane on Airport Pulling Road at US 41 as shown in the aerial to the right.

**US 41 and Airport Pulling Road / Peters Avenue**

Issue: Influence of Intersection Skew and Corner Radii on Speed of Right Turns; Inconspicuous Eastbound Right-turn Slip Lane

Description of Safety Issue:

The westbound US 41 to northbound Airport Pulling Road right turn is a prominent movement at this intersection. The RSA Team observed the right turns moving at a high speed due to the large corner radius on the northeast corner thus creating concerns for pedestrians / bicyclists standing on the corner or trying to cross. The driver's view of the crosswalk and view of anyone waiting on the northeast corner is also obstructed by the mast arm pole. The eastbound to southbound right-turn movement has an unsignalized slip-lane that is easily missed by approaching motorists and creates an additional pedestrian crossing with a high speed right-turn movement. The west leg crosswalk is not straight across the intersection making it difficult to cross for visually impaired users.



**Suggestion (Short-term):**

Consider restriping the crosswalk on the west leg of US 41 to remove the “kink” in it.

Suggestion (Mid-term):

- Consider physically reducing the northeast corner radii by installing a bulb-out. This will not only moderate turning speeds and reduce potential conflicts with pedestrians / bicyclists; it will also shorten the length of the east / west pedestrian crossing.
- Consider removal of the slip lane and relocating the eastbound right turns to the signalized intersection. The right-turn motorists will also be required to negotiate the turn at a slower speed at the signalized location.

US 41 and Courthouse Shadows / Espinal Boulevard**Issue: Northbound to Eastbound Acceleration Lane****Description of Safety Issue:**

The northbound to eastbound right-turn acceleration lane is less than 100 feet and insufficient for an adequate acceleration lane. The additional pavement adds approximately 20 feet to the pedestrian crossing distance across the east leg of US 41. The longer distance not only increases the pedestrian’s exposure to vehicles but increases the length of the pedestrian signal time which also increases vehicle delays.

**Suggestion (Short-term):**

Consider removal of the northbound to eastbound acceleration / transition lane.

US 41 and Palm Drive**Issue: Missing Northbound Stop Bar****Description of Safety Issue:**

The northbound private drive is signalized at Palm Drive but there is no stop bar to separate the motorists from the pedestrians / bicyclists crossing the crosswalk located across the south leg of the intersection.

**Suggestion (Short-term):**

Consider installing a stop bar for the northbound signalized driveway movement.



Airport Pulling Road and Glades Boulevard

Issue: Crosswalk Location within Signalized Intersection; Driveway within Intersection; Missing Crosswalk

Description of Safety Issue:

The eastbound approach of Francis Avenue is a signalized right-turn since it is offset from Glades Boulevard. The crosswalk across Francis Avenue has a pedestrian signal and crosswalk but the southbound approach stop bar is located south of the start of the concurrent crosswalk. A driveway to the Alice Sweetwater restaurant is located too close to the intersection, 50 feet south of Francis Avenue and within the signalized intersection. The south leg of the intersection currently does not have a crosswalk since it would align with the restaurant driveway.



Suggestion (Short-term):

- Shift the southbound stop bar to the north so it is outside of the eastbound signalized driveway as shown in the aerial to the right.
- Replace the northbound NO U-TURN sign with a combination NO LEFT-TURN, NO U-TURN sign (R3-18). This will match the existing ground-mount sign.



Suggestion (Mid-term):

Close the northernmost driveway to Alice Sweetwater to minimize conflicts with the signal. The two other restaurant driveways located on Francis Avenue and Airport Pulling Road are adequate access points for the business. Add a crosswalk across the south leg of the intersection with the closure of the driveway as shown in the photo to the right.





Airport Pulling Road and Walker Lane

Issue: Missing Side Street Crosswalk Markings

Description of Safety Issue:

The side street of Walker Lane does not have any crosswalk markings.

Suggestion (Short-term):

Add high visibility crosswalk pavement markings on this side street. This will alert the approaching side street traffic of potential pedestrian / bicyclist traffic and also highlight the stop point for the drivers before moving forward to view oncoming traffic. At a minimum, add painted diagonal crosswalk markings at this intersection.



Airport Pulling Road and Davis Boulevard / SR 84

Issue: Configuration of Channelized Right-turn Lanes and Conflicts with Pedestrians and Bicyclists

Description of Safety Issue:

This intersection has been redesigned and ready to go to the construction phase to add a southbound right-turn lane. The proposed design includes a channelized right-turn lane that will provide an unsignalized right-turn movement or YIELD control and an unsignalized pedestrian movement across the channelized turn lane. This could contribute to pedestrian / bicycle crashes at this location as seen at other locations. The YIELD condition and the wider turning radius of the right turn lanes encourage higher turning speeds by motorists.

Suggestion (Short-term):

Consider modifying the proposed design to include a signalized crosswalk across the entire north leg by removing the channelized right-turn lane and providing signalized control for the southbound right-turn movement. If the channelized right-turn cannot be removed at this stage of the design consider a modified design to include signalized control of the southbound right turn lane with a right-turn signal overlap phase.





Airport Pulling Road and Estey Avenue

Issue: Location of the Crosswalk Across the West Leg

Description of Safety Issue:

The crosswalk traversing the west leg of Estey Avenue is skewed such that the approaching eastbound motorists may not see pedestrians / bicyclists in the crosswalk as they leave the southwest corner.

Suggestion (Mid-term):

Realign the crosswalk and the ADA ramp on the west leg of the intersection and install high emphasis crosswalk markings across all legs of the intersection.



Additional Safety Suggestions

Although many of these proven engineering measures could reduce the pedestrian and bicycle crashes, these measures need to be supplemented with ongoing enforcement and education. Strong partnerships are necessary to reduce the occurrence of the crashes on these corridors. FHWA's Pedestrian and Bicycle Information Center states, "*Public awareness and education need to occur before law enforcement activities. The awareness and education messages should inform people of the problem and why enforcement action is needed. This will generate public support and help to offset any complaints from those who are caught breaking the law.*"

Education

Collier County has implemented and is in the process of adding new pedestrian / bicycle educational campaigns. The following lists some of these on-going programs:

- **3-FOOT PLEASE** on all County vehicles for bicycle safety
- Bike Rodeos
- Community Traffic Safety Team (CTST)
- Safe Routes to School
- Health Impact Assessment for Bayshore Neighborhood
- Pathways Advisory Committee
- Radio Public Service Announcements
- GiveAways - helmets, bicycle lights, safety vests, stickers
- Pedestrian / Bicycle Maps
- Congestion Management Intelligent Transportation System (ITS) Committee Meetings

Based on the data collected, the Hispanic community is a significant presence in the study area. Bi-lingual education material needs to be incorporated into the education suggestions outlined below. FHWA and National Highway Traffic Safety Administration (NHTSA) have free downloadable material including flyers, brochures, posters, and Public Service Announcements



(PSAs) that can be used. These can be found at:

- [http:// safety.fhwa.dot.gov/ped_bike/hispanic/materials/](http://safety.fhwa.dot.gov/ped_bike/hispanic/materials/)
- <http://www.nhtsa.gov/Driving+Safety/Bicycles/Pedestrian+and+Bicycle+Safety+among+Hispanics>

Suggestion:

- Implement WalkWise program – WalkWise is a grassroots education program that teaches the laws and basics of walking and bicycling safely. The Farmers Market, mobile home communities, homeless support groups, County Government Center for employees, are all audiences that can participate in the interactive presentations.
- Human interest stories – Interview local walkers / bicyclists that travel regularly on the study corridors to capture their unique story of their work / family / hobbies. These stories can assist in promoting the significance of the vulnerable users in the community promoting safer practices for drivers and pedestrians / bicyclists.
- Develop PSA safety messages to be aired at the movie theaters
- Create and run educational videos on the buses to promote safe walking and bicycling practices; include bi-lingual messages.
- The education messages need to focus on the benefits of bicyclists riding with the traffic flow and the importance of making eye contact with motorists before crossing driveways and streets.
- Utilize Best Practices produced by CTST's and by the Naples Pathway Coalition.
- Police Officer Training – Perform training to police officers on how to complete crash reports and on bicycle and pedestrian laws.
- Utilize changeable message signs on both corridors to display to motorists the need to follow the 3-foot rule.

Enforcement

Given the pedestrian and bicycle crash statistics for Florida as a whole and the high crash rates on these corridors, it is essential that the local enforcement agencies recognize their role in assisting in bringing these numbers down. The police officers are critical in readjusting the mindset of how the drivers, the pedestrians and the bicyclists share the roadways. Enforcement is needed for all users. FDOT has funding available for law enforcement agencies to conduct High Visibility Enforcement operations for pedestrian and bicyclist safety. The website for applications is <http://alerttodayflorida.com/enforcement.html>. The Community Traffic Safety Teams are multi-disciplinary teams with the goal to reduce crashes on the roadways. Collier County's Team meets monthly. It is important that enforcement representatives attend these meetings and continue to partner with other safety advocates. The previously discussed measures of speed feedback signs and police bicycle patrols are also proven measures to make a difference in promoting safer walking and biking.



APPENDICES



APPENDIX A

Pedestrian/Bicycle RSA Participant List



SIGN-IN SHEET



Collier County Pedestrian/Bicycle Road Safety Audits US 41 and Airport Pulling Road

Date: February 4, 2015

NAME	TITLE/DEPARTMENT	E-MAIL	PHONE
WAYNE G. ANDER	CARDNO	WAYNE.ANDER@CARDNO.COM	727-431-1586
AL MUSICO	MPO - PAC	ALAMUSICO@FARRMAIL.COM	239-642-9729
Julio O'Donez	Traffic Operations	julioodonez@colliergov.net	(239) 253-0519 (C)
MIKE KAUTZ	FOOT SAFETY	michael.kautz@dot.state.fl.us	(239) 252-5762 (B)
David Jones	FOOT SAFETY (BIKE/PED)	david.jones@dot.state.fl.us	863 519 -2522
Susan Joel	PM - Cardno	susan.joel@cardno.com	863-519-2447
Ward Kennedy	Collier MPO	wardkennedy@colliergov.net	707-519-4170 (C)
Stacy Leway	Collier County Transportation Planning	stacyleway@colliergov.net	813-221-0048
Trinity Scott	cc Public Transit	trinityscott@colliergov.net	239-252-5804
			239-252-5677
			239-252-5832



APPENDIX B
RSA PowerPoint Presentation

Attachment: 2015 FDOT Pedestrian/Bicycle Safety Audit (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm



Collier County Pedestrian/Bicycle Safety Audit

for
US 41 and Airport Pulling Road

Sponsored by FDOT District One Safety Office
February 4 - 5, 2015



What is a Road Safety Audit?

A road safety audit is a formal safety performance examination of an existing or future road or intersection by an independent audit team.



What is a Road Safety Audit?

The RSA team considers the safety of all road users, qualitatively estimates and reports on the road safety issues identified, and documents opportunities for safety improvements.



What is a Bike/Ped Safety Audit?

While all RSAs should include a review of pedestrian and cyclist safety, a bicycle/pedestrian-oriented RSA may be undertaken to improve identified bicyclist/pedestrian safety issues that may have resulted from changes in land use and mode choice over time or inadequate consideration of bicycling/pedestrians in previous planning and design processes.



The RSA Team

For RSAs with a significant bicycling component (i.e. bicycle RSAs), the team members should be aware of constraints and issues that affect bicyclists and have a background in (1) road safety, (2) traffic operations, (3) road design, (4) bicycling safety, operations, or planning (or someone who understands the skills necessary for bicycling on the road with traffic), (5) transit operations, (6) enforcement (e.g., bike patrol officer), and/or (7) emergency medical services.



Our RSA Team

- Independent
- Experienced
- Multi-disciplinary
 - RSA Team Leader
 - Highway Safety
 - Traffic Operations
 - Highway Design
 - Transit Officials
 - Planners
 - Users (Bicyclists, Peds)
 - Law Enforcement

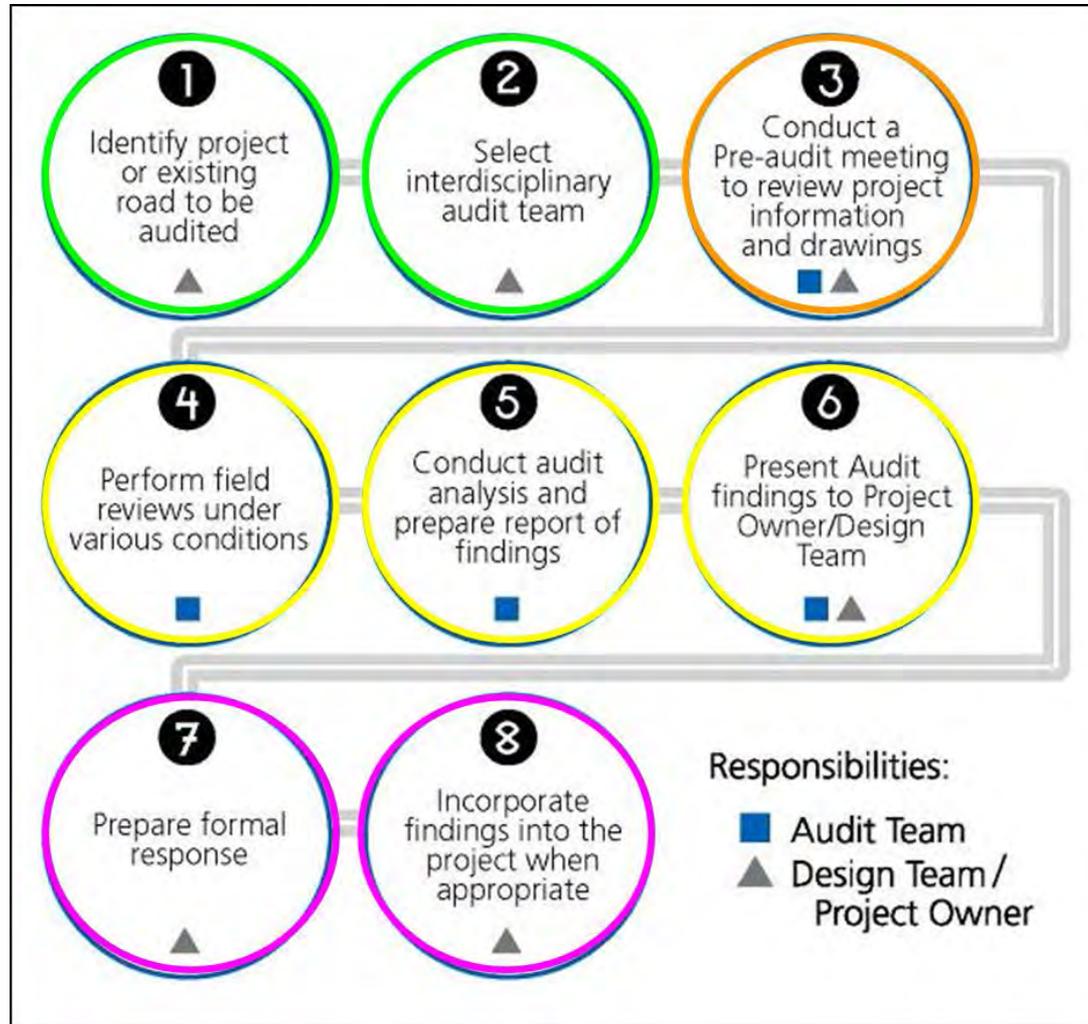


RSA Steps to be Performed Today

- Conduct Pre-Audit Meeting (Now)
 - Site conditions
 - Traffic characteristics
 - Crash experience
- Perform Field Review (Mid-day)
- Conduct Audit Analysis (Late afternoon)



Steps in the RSA Process



RSA Step 5 – Audit Analysis

- Issue
- Description of safety issue with photos
- Suggestion – short-term, mid-term and/or long-term



RSA Step 5 Audit Analysis – Sample Project

Issue: Configuration of Raised Islands and Orientation of Corner-to-Island Crosswalks

Description of Safety Issue:

The westbound-to-northbound and eastbound-to-southbound right turn lanes are separated from the through lanes by raised islands and the movements are not controlled by the traffic signals. These vehicular movements are regulated by YIELD signs located near the merge point with Santa Barbara Boulevard.



Suggestion (Short-term, Mid-term and Long-term):

Short-Term: 1. Consider installing regulatory TURNING VEHICLES YIELD TO PEDESTRIANS signs (R10-15) in advance of the intersection at each of these two right turn lanes

Mid-term: Consider reconfiguring the raised islands to eliminate the curved alignment of the turn lane in favor of a narrower, triangular design

Two Corridors to be Examined

- Source: *FDOT Ped/Bike High Crash List and Collier County MPO*
- **US 41 from Commercial Drive/Palm Street to Guilford Road**
 - Airport Pulling Road to Commercial Drive/Palm Street (Ranks #5)
 - 31.7% night-time crashes
- **Airport Pulling Road from US 41 to Estey Avenue**
 - Airport Pulling Road from US 41 to Clipper Way (Ranks #34)
 - 12.5% night-time crashes



Corridor Basics

- ADT
 - Airport Pulling Rd. – 43,000
 - US 41 – 39,200
- Posted Speed – 45 MPH
- Trucks – approx. 3%
- Bike lanes
- Ped/Bike data – on aerials
- Crash data – on aerials
- Typical section – US 41
 - 6-12 foot lanes (11-foot lanes some areas)
 - 4-foot paved shoulders
 - Curb and gutter and lawn shoulders

Corridor Basics (cont.)

- Typical section – Airport Pulling Road
 - 6 -11-foot lanes
 - No shoulders
 - Curb and gutter
- Schools
- Transit
- Special land uses
- Previous/current studies
 - Current - *Pilot Pedestrian and Bicycle Safety Study* (Pathway's Advisory Committee)
 - Feb., 2014 – *Pedestrian and Bicycle Safety Study*

Bicyclist Prompt List

Are bicyclists accommodated?

- Do accommodations conform to the state of practice/guidelines/relevant standards, or are there more advanced designs that would better support and enhance conditions for bicycling?
- Are there adequate bicycling provisions on both sides of the roadway?
- Would bicycle lanes or separated facilities improve conditions for bicyclists and if so, is there adequate separation between vehicular and bicycle traffic?
- Is there adequate space and accommodation for bicycles? (Design Bulletin 14-17)
- Is the type of bicycling accommodation appropriate for the roadway context?
- Is the type of bicycling accommodation appropriate for the primary or intended

Bicyclist Prompt List (cont.)

Are driveways designed with bicyclists in mind?

- Are driveways well-defined?
- Are they clear of obstructions for driver/bicyclist action consistent and predictable?
- Multiple driveways increase conflict points for bicyclists.
- Poor access management may encourage bicyclists to use sidewalks.

Bicyclist Prompt List (cont.)

- Is the riding surface smooth, stable, and free of debris, and is drainage adequate?
- Are drainage grates or manholes located in the cyclists' path of travel?
- Are there horizontal or vertical obstructions (temporary or permanent) along the facility?
- Are bicycle accommodations continuous? Do bicycle accommodations provide adequate connectivity to major destinations?
- Is the riding surface adequately lit?
- Is the visibility of bicyclists using the facility adequate from the perspective of all road users?
- Are signs and markings along the riding surface visible, well-maintained, easily understood, and adequate?

Bicyclist Prompt List

- Are intersection accommodations designed to reduce conflicting movements and communicate proper bicycle positioning through the crossing?
- Are accommodations properly designed and placed on intersection approaches?
- Are there difficulties for bicyclists caused by intersection geometry or lane use assignments?
- Are there any unique intersection characteristics that may pose a problem for bicyclists?

Bicyclist Prompt List

- Do traffic operations (especially during peak periods) create a safety concern for bicyclists?
- Can bicyclists see approaching vehicles/pedestrians at all legs of an intersection/crossing, and vice versa?
- Do signs and markings along the cycling facility clearly indicate the bicyclist path and right-of-way at intersections?
- Does the traffic signal design accommodate all users?
- Are there conflicting traffic movements during bicycle crossing phases?

Are transit facilities designed and placed to minimize conflicts with other modes?

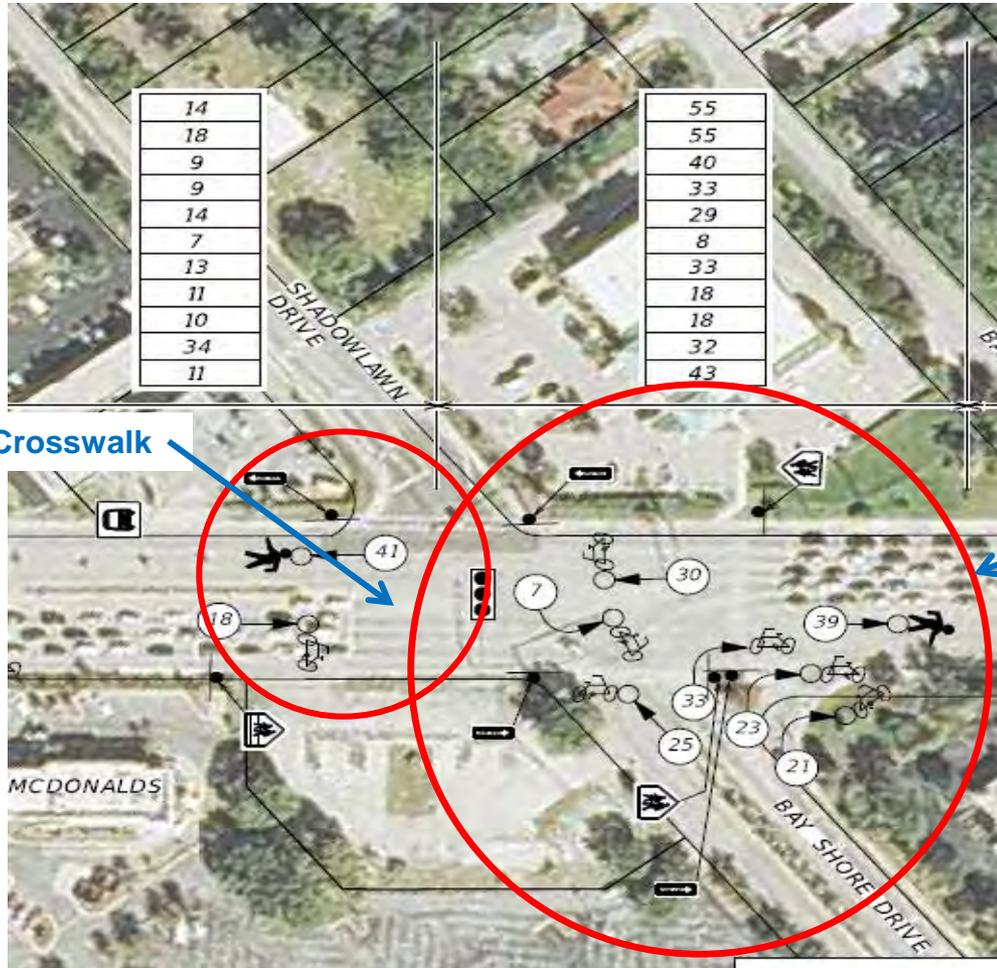
High Crash Locations – US 41 near Pine St



Attachment: 2015 FDOT Pedestrian/Bicycle Safety Audit (4984 : Arterial Safety Study -

Sheet No.
2

High Crash Location – US 41/Shadowlawn/Bayshore

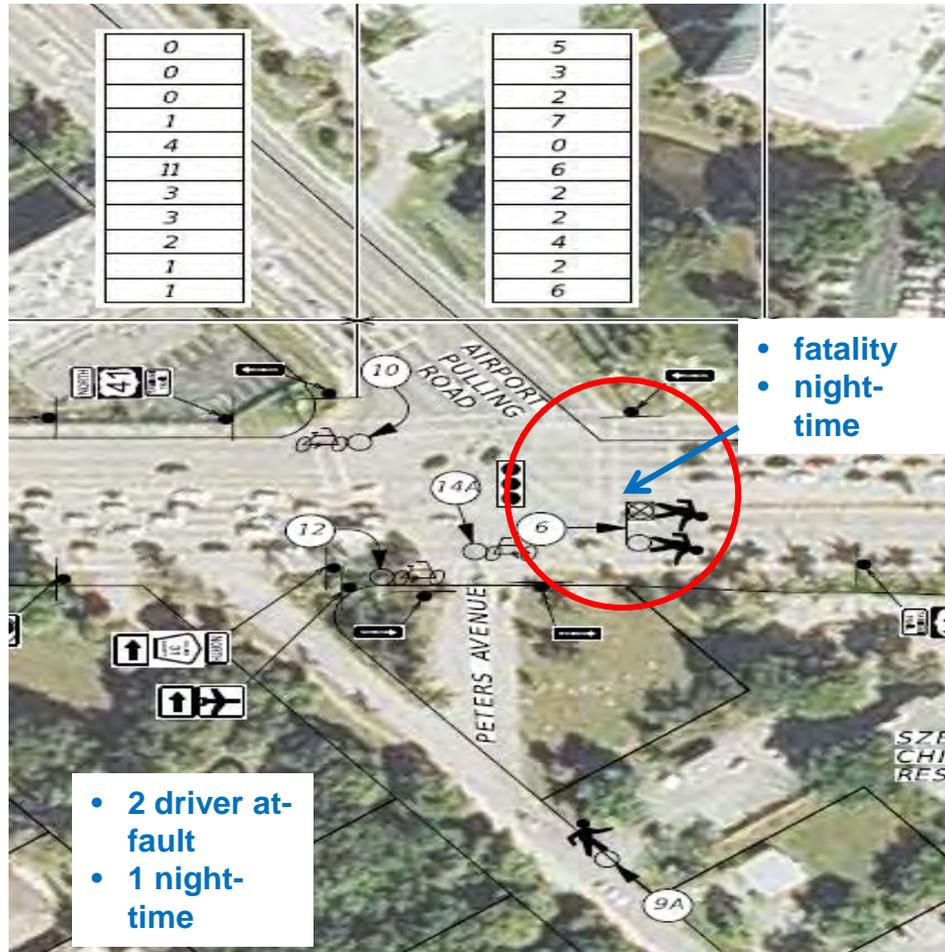


No Crosswalk

- 7 crashes at signal
- 3 driver at-fault
- 2 night-time

Sheet No
3

High Crash Location – US 41 @ Airport Pulling Rd



Sheet No.
4

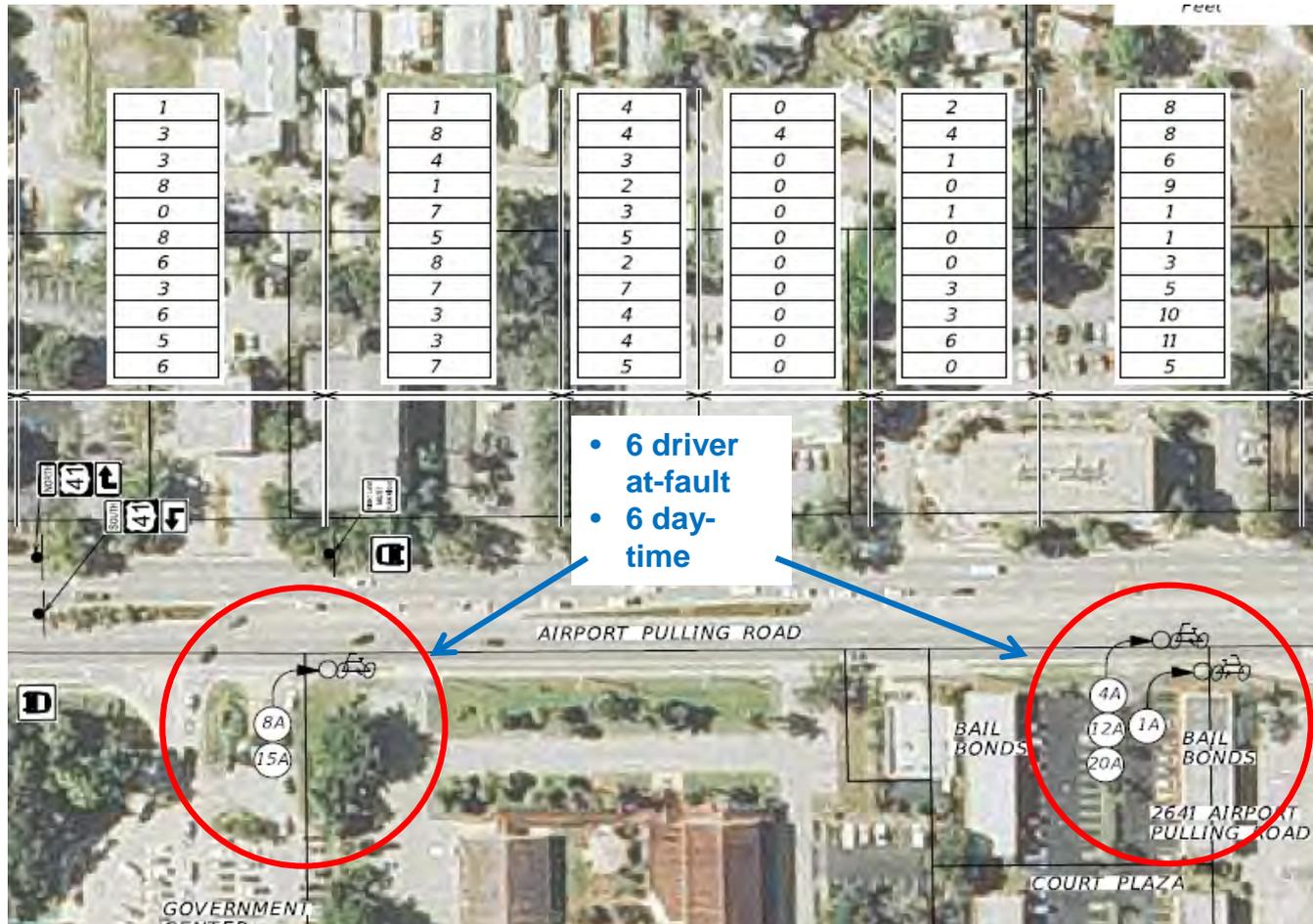
High Crash Location – US 41 @ Lakewood/Avalon



- 3 ped/bike at-fault
- 1 night-time

Sheet No.
8

High Crash Location – Airport Pulling Rd/Court Plaza



Sheet No.
9

Proven Countermeasures at Signalized Intersections

- MUTCD compliant pedestrian signals
 - Location / orientation / signage
- Leading Pedestrian Interval
- Rest in Walk and Recall

	Ped/Bike Ped Signal Crossing Compliance			
	Site A	Site B	Site C	Site D
Existing Conditions	70.80%	77.90%	5.80%	33.00%
Modified Conditions	3.60%	10.80%	70.60%	92.20%

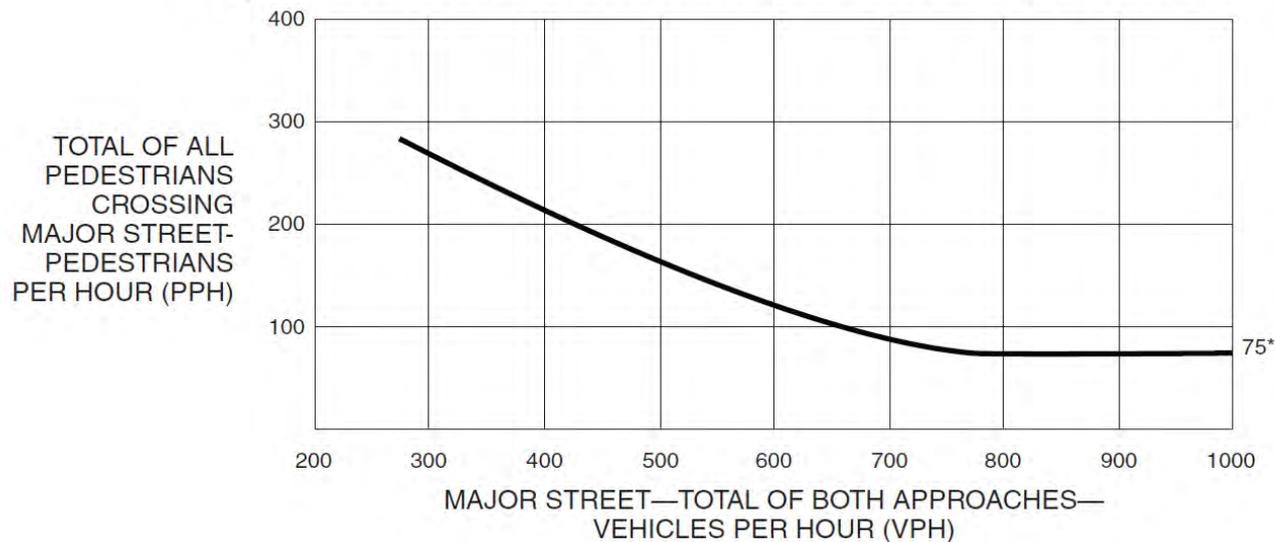
6 lane div/2 lane

6 lane div/4 lane

MUTCD Pedestrian Signal Warrant No. 4

- Each of any 4 hours of an average day volumes are above curve (> 35 MPH).....OR

Figure 4C-6. Warrant 4, Pedestrian Four-Hour Volume (70% Factor)

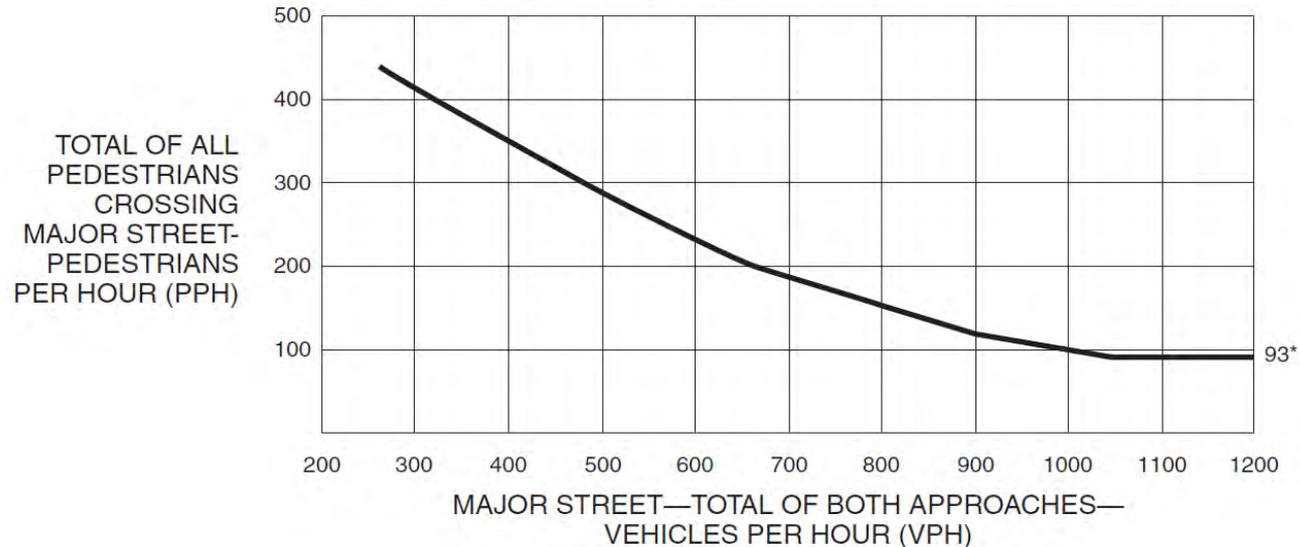


*Note: 75 pph applies as the lower threshold volume.

MUTCD Pedestrian Signal Warrant No. 4

- For 1 hour of an average day volumes are above curve (> 35 MPH)

Figure 4C-8. Warrant 4, Pedestrian Peak Hour (70% Factor)



*Note: 93 pph applies as the lower threshold volume.

Additional Pedestrian Signal Warrant Criteria – TEM 3.8.6.4

- Pedestrian group size
- Vehicle gap size
 - *Manual on Uniform Traffic Studies (MUTS)*
- Coordinate with District Access Management Committee and DTOE
- Six-lane roadways or 80-foot crossings
 - Consider two-stage crossing

Mid-block Pedestrian Crosswalk Criteria – TEM 3.8.5

- Well-defined pattern of pedestrian crossings
- Sufficient demand for 3 consecutive days of data
 - Minimum 20 crossings per hour, and
 - Minimum 60 crossings during any 4 hours of the day (not necessarily consecutive)
- Minimum 2,000 ADT on roadway
- Minimum distance to nearest crossing is 300 feet
- Minimum block length of 660 feet
- Location outside influence of adjacent signalized intersections
 - Turn lanes
 - No standing queues

Pedestrian Hybrid Beacon

- A pedestrian hybrid beacon may be considered for installation to facilitate pedestrian crossings at a location that does not meet traffic signal warrants (see Chapter 4C),

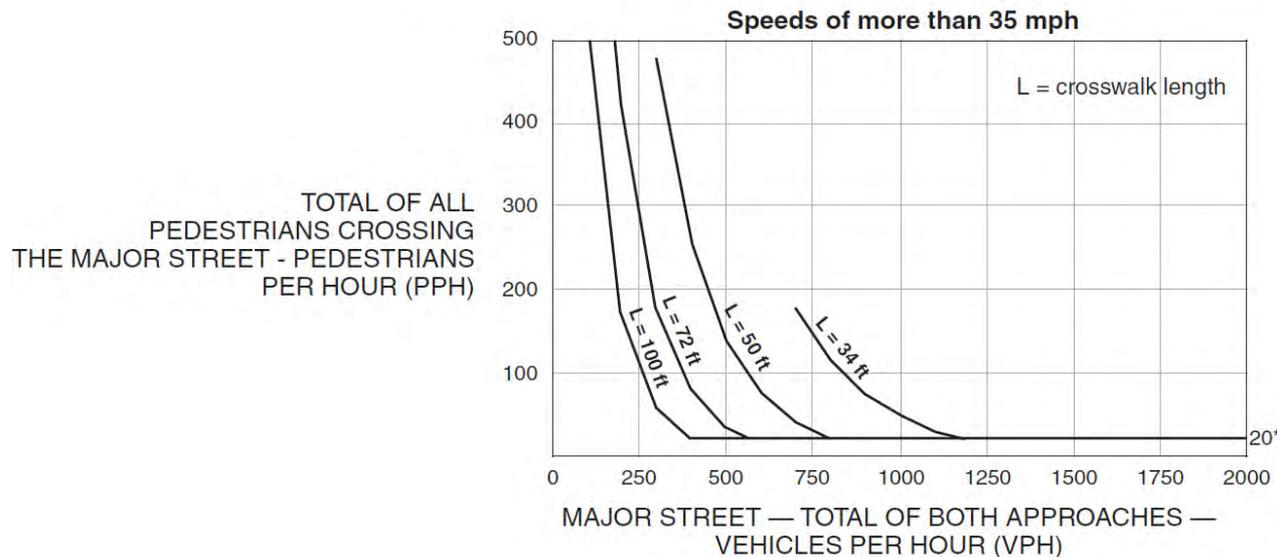
OR

- At a location that meets traffic signal warrants under MUTCD Sections 4C.05 and/or 4C.06 but a decision is made to NOT install a traffic control signal.

Pedestrian Hybrid Beacon Criteria – MUTCD 4F.01

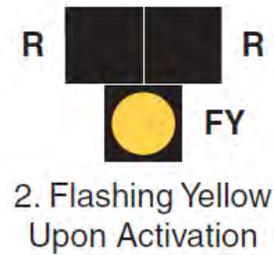
- Pedestrian volumes based on 1 hour of an average day (>35 mph)

Figure 4F-2. Guidelines for the Installation of Pedestrian Hybrid Beacons on High-Speed Roadways



* Note: 20 pph applies as the lower threshold volume

Pedestrian Hybrid Beacon Sequence



Legend

- SY Steady yellow
- FY Flashing yellow
- SR Steady red
- FR Flashing red

Supplemental Beacon Option - RRFB

Rectangular Rapid Flashing Beacon (RRFB)

- The rectangular beacons are provided in pairs below the PEDESTRIAN CROSSING warning sign (*W11-2*) and
- Operate in a “wig-wag” pattern upon activation by the pedestrian.
- When used, the beacons must be pedestrian activated, using approved detectors (such as pushbuttons or passive detection devices) that meet ADA requirements for accessibility.



The TEAM Approach - 4 E's

- Engineering
- Education
- Enforcement
- Emergency Services



APPENDIX C

Pedestrian/Bicyclist Crash Summary Tables

Collier County Pedestrian/Bicycle Road Safety Audits

Location: Guilford Road to Commercial Drive State Route: US 41 (Tamiami Trail)
 Study Period: 2009 to 2014 County: Collier
 Number of Years: 5+

NO.	DATE	DAY	TIME	TYPE	FATAL	INJURY	PROP DAMAGE ONLY	DAY/ NIGHT	WET/ DRY	UNDER INFLUENCE	GENDER PED/BIKE	RACE	AGE OF PED/BIKE	AGE OF DRIVER	AT- FAULT	AT SIGNAL LOCATION	AT DRIVEWAY	CONTRIBUTING CAUSE	COMMENTS
1	2/19/2009	Thursday	3:49 PM	Bike		X		Day	Dry		Male	C	48	73	Bike		X	FTY R/W	Bicyclist traveling EB on US 41 in WB bicycle lane was struck by motorist making SB right-turn from Pelton Avenue.
2	3/26/2009	Thursday	2:55 PM	Bike		X		Day	Dry	X	Male	C	48	24	Bike	X		FTY R/W	Driver making WB left-turn on US 41 onto Guilford Rd with green arrow struck bicyclist traveling WB in crosswalk on south leg.
3	8/14/2009	Friday	1:38 PM	Bike		X		Day	Dry		Male	C	45	71	Driver		X	FTY R/W	Driver making NB right-turn at 2416 Tamiami Tr (Pet Supermarket) driveway struck bicyclist traveling east (with adjacent street traffic) on sidewalk.
4	12/14/2009	Monday	6:20 PM	Ped		X		Day	Dry	X	Male	C	34	48	Ped			FTY R/W	Pedestrian traveling NB across US 41 midblock near Glades Motel was struck by WB vehicle (in heavy traffic).
5	1/26/2010	Tuesday	11:56 AM	Bike		X		Day	Dry		Female	H	20	73	Bike			FTY R/W	Bicyclist crossing US 41 NB at Pelton St was struck by WB vehicle.
6	8/12/2010	Thursday	1:16 PM	Bike		X		Day	Dry		Male	C	34	67	Bike	X		FTY R/W	Bicyclist traveling SB on Lakewood Blvd crossing US 41 west leg in crosswalk against traffic was struck by WB motorist with ROW.
7	3/9/2010	Tuesday	9:33 PM	Ped	X	X		Night	Dry		Female	C	20	19	Ped	X		FTY R/W	Two pedestrians crossed SB on east leg of US 41 at Airport Pulling Rd were struck by a EB motorist with the ROW. Pedestrians crossed 25 feet from crosswalk, against traffic and it was at night. Motorist fled scene. FATAL
8	8/30/2010	Monday	9:14 PM	Bike		X		Night	Wet		Male	H	28	61	Driver	X		FTY R/W	Motorist making SB left-turn on Shadowlawn Dr onto US 41 at signal struck bicyclist in the crosswalk traveling SB on the east leg of US 41. Bicyclist had ROW but had no bicycle light and it was dark and raining.
9	10/11/2010	Monday	5:47 PM	Bike		X		Day	Dry		Male	C	54	56	Driver		X	FTY R/W	Driver making WB left-turn on US 41 into driveway at Gulfgate Plaza struck bicyclist traveling EB in bike lane (with adjacent street traffic).
10	2/11/2011	Friday	11:21 PM	Ped		X		Night	Dry		Male	C	51	58	Ped	X		FTY R/W	Motorist traveling EB on US 41 at Lakewood Blvd signal with green signal struck pedestrian in crosswalk walking SB (against ped signal) across east leg of US 41. Dark-lighted
11	3/3/2011	Thursday	11:20 AM	Bike		X		Day	Dry		Male	C	67	58	Driver		X	FTY R/W	Driver making SB right-turn at Gordon Street struck bicyclist traveling westbound on sidewalk.
12	4/12/2011	Tuesday	10:25 AM	Bike		X		Day	Dry		Male	C	28	72	Driver	X		FTY R/W	Driver making SB right-turn at signal on Airport Pulling Rd to turn onto US 41 collided with bicyclist crossing Airport Pulling Rd traveling EB on north leg. Driver cited for leaving scene. Unknown who had the ROW.
13	5/4/2011	Wednesday	5:12 PM	Bike		X		Day	Dry		Male	H	16	36	Driver	X		FTY R/W	Driver making WB left-turn on US 41 onto Palm St at signal struck bicyclist in the crosswalk. Driver cited for FTY R/W.
14	6/15/2011	Wednesday	9:56 AM	Bike		X		Day	Dry		Female	C	51	64	Driver	X		FTY R/W	Driver making EB right-turn at signal at Peters Ave collided with bicyclist traveling EB in crosswalk across west leg of intersection. Driver cited for FTY.
15	8/16/2011	Tuesday	3:49 PM	Bike		X		Day	Dry		Female	C	48	49	Driver		X	FTY R/W	Driver making NB right-turn at Gordon St onto US 41 struck bicyclist in crosswalk who was traveling WB (opposite adjacent street traffic).
16	8/27/2011	Saturday	3:42 PM	Bike		X		Night	Dry		Male	H	39	23	Driver		X	FTY R/W	Driver making NB right-turn at River Dr onto US 41 struck bicyclist in crosswalk who was traveling WB (opposite adjacent street traffic).
17	11/3/2011	Thursday	2:30 PM	Bike		X		Day	Dry		Male	H	35	67	Bike	X		Riding Wrong Way	Driver making NB right-turn from US 41 to Courthouse Shadows struck bicyclist riding NB in roadway against traffic.
18	11/3/2011	Thursday	7:44 PM	Ped		X		Night	Dry	X	Male	H	56	UNK	Ped			FTY R/W	Pedestrian traveling SB across US 41 near Pet Supermarket was struck by motorist traveling EB. Dark - lighted. Motorist fled scene.
19	11/7/2011	Monday	4:10 PM	Bike		X		Day	Dry		Male	H	21	18	Driver		X	FTY R/W	Driver making WB left-turn on US 41 into Gulf Gate Plaza struck bicyclist traveling WB (opposite adjacent street traffic) across driveway.

Collier County Pedestrian/Bicycle Road Safety Audits

Location: Guilford Road to Commercial Drive State Route: US 41 (Tamiami Trail)
 Study Period: 2009 to 2014 County: Collier
 Number of Years: 5+

NO.	DATE	DAY	TIME	TYPE	FATAL	INJURY	PROP DAMAGE ONLY	DAY/NIGHT	WET/ DRY	UNDER INFLUENCE	GENDER PED/BIKE	RACE	AGE OF PED/BIKE	AGE OF DRIVER	AT- FAULT	AT SIGNAL LOCATION	AT DRIVEWAY	CONTRIBUTING CAUSE	COMMENTS
20	11/14/2011	Monday	5:30 PM	Bike		X		Night	Dry	X	Male	H	64	59	Bike			FTY R/W	Bicyclist exiting the Food Mart driveway, east of Bayshore Dr, crossed in front of EB motorist on US 41 and was struck. Dusk traveling WB across Airport Pulling Rd from 2601 Airport Pulling was struck by NB motorist.
21	11/16/2011	Wednesday	9:45 PM	Bike		X		Night	Dry		Male	H	45	UNK	Driver		X	FTY R/W	Bicyclist traveling EB on US 41 (with traffic) crossing Pine St with bike light was struck by motorist traveling NB on Pine St and who then fled the scene.
22	11/19/2011	Saturday	11:50 AM	Ped		X		Night	Dry		Female		50	54	Driver		X	FTY R/W	Driver making SB right-turn from Pineland Ave onto US 41 struck pedestrian walking E across driveway. DARK - not lighted.
23	11/21/2011	Monday	10:30 AM	Bike		X		Day	Dry		Male	H	47	UNK	Driver	X		FTY R/W	Motorist traveling NB on Bayshore Dr at signal made a right-turn into a bicyclist also making a NB right-turn onto US 41. Driver fled scene.
24	11/25/2011	Friday	9:03 AM	Bike		X		Day	Dry		Female	H	29	31	Driver		X	FTY R/W	Driver making NB right-turn from driveway at 2886 US 41 (McDonalds) struck bicyclist traveling WB (opposite adjacent street traffic) on sidewalk.
25	1/10/2012	Tuesday	12:38 PM	Bike		X		Day	Dry		Male		64	69	Bike	X		Riding Wrong Way	NB motorist making right-turn on Bayshore Dr to US 41 struck bicyclist traveling WB (against traffic) in bike lane.
26	1/17/2012	Tuesday	11:50 AM	Bike		X		Day	Dry		Male		44	68	Bike	X		FTY R/W	Motorist traveling SB on Lakewood Blvd turning left onto US 41 struck bicyclist traveling WB across north leg (Lakewood Blvd) against traffic signal. Driver had green arrow.
27	1/27/2012	Friday	3:36 PM	Bike		X		Day	Wet		Male	H	32	UNK	Driver		X	FTY R/W	Motorist traveling EB on US 41 in rainy weather struck bicyclist traveling EB on sidewalk across Pet Supermarket driveway (2416 US 41) when she turned right into the driveway. Motorist then fled the scene.
28	2/18/2012	Saturday	11:50 AM	Bike		X		Day	Dry		Male		31	61	Bike	X		FTY R/W	Motorist traveling NB on Bayshore Dr at US 41 signal had green signal and struck bicyclist traveling EB across Bayshore Dr (south leg) against traffic signal.
29	2/23/2012	Thursday	5:08 PM	Bike		X		Day	Dry		Male		15	30	Driver		X	FTY R/W	Driver making SB right-turn from driveway at Government Center on US 41 struck bicyclist traveling EB on sidewalk across driveway.
30	2/28/2012	Tuesday	2:03 PM	Bike		X		Day	Dry		Male		51	35	Driver		X	FTY R/W	Driver making NB right-turn from driveway at Bamboo Dr struck bicyclist traveling WB (opposite adjacent street traffic) on sidewalk.
31	3/26/2012	Monday	11:18 PM	Bike		X		Night	Dry	X	Female	H	48	66	Driver		X	FTY R/W	Driver making NB right-turn from driveway at 3010 Tamiami Tr struck bicyclist traveling EB (with adjacent street traffic) on sidewalk.
32	6/30/2012	Saturday	5:28 PM	Bike		X		Day	Dry	X	Male		53	43	Bike		X	Riding Wrong Way	Driver making NB right-turn from Gordon St struck bicyclist traveling WB (opposite adjacent street traffic) in roadway.
33	8/5/2012	Sunday	1:20 PM	Bike		X		Day	Dry		Female		49	59	Bike		X	Riding Wrong Way	Driver making SB right-turn from 2601 Tamiami Tr (Wendy's parking lot) struck bicyclist traveling EB (against traffic) in bicycle lane.
34	11/29/2012	Thursday	2:32 PM	Bike		X		Day	Dry		Male		24	59	Bike	X		FTY R/W	Driver traveling WB on US 41 through Bayshore Dr intersection had green signal collided with bicyclist traveling NB (opposite adjacent street traffic) across US 41 on the east side of the intersection.
35	11/29/2012	Thursday	3:42 PM	Bike		X		Day	Dry		Male		47	52	Bike	X		FTY R/W	Driver traveling straight SB on Airport Pulling Rd at signal with US 41 with green signal struck bicyclist traveling EB in crosswalk on south leg (Peters St).
36	12/18/2012	Tuesday	12:37 PM	Bike		X		Day	Dry		Male		48	43	Bike		X	Riding Wrong Way	Driver making NB right-turn from driveway at Bamboo Dr struck bicyclist traveling WB (opposite adjacent street traffic) in bike lane. Motorist said view obstructed by wall and hedges.
37	1/19/2013	Saturday	3:36 PM	Bike		X		Day	Dry		Male		60	79	Driver		X	FTY R/W	Driver making SB right-turn from driveway at 2205 Tamiami Trail (Coral Cay Adventure Golf) struck bicyclist traveling WB on sidewalk.
38	2/15/2013	Friday	6:00 PM	Bike		X		Day	Dry		Male		51	55	Driver		X	FTY R/W	Driver making NB right-turn from driveway at Pine St struck bicyclist traveling WB (opposite adjacent street traffic) on sidewalk.

Collier County Pedestrian/Bicycle Road Safety Audits

Location: Guilford Road to Commercial Drive State Route: US 41 (Tamiami Trail)
 Study Period: 2009 to 2014 County: Collier
 Number of Years: 5+

NO.	DATE	DAY	TIME	TYPE	FATAL	INJURY	PROP DAMAGE ONLY	DAY/NIGHT	WET/DRY	UNDER INFLUENCE	GENDER PED/BIKE	RACE	AGE OF PED/BIKE	AGE OF DRIVER	AT-FAULT	AT SIGNAL LOCATION	AT DRIVEWAY	CONTRIBUTING CAUSE	COMMENTS
39	2/24/2013	Sunday	6:50 PM	Bike			X	Night	Dry		Male	H	41	35	Driver	X		FTY R/W	Driver making NB right-turn from Bayshore Dr onto US 41 struck bicyclist in the marked crosswalk located across the right-turn channelized lane. No bike light.
40	3/10/2013	Sunday	3:43 PM	Bike		X		Day	Dry		Female		25	66	Bike		X	Riding Wrong Way	Driver making NB right-turn from driveway at Pine St struck bicyclist traveling WB (against traffic) in bike lane.
41	7/13/2013	Saturday	3:37 PM	Bike		X		Day	Dry		Female	H	41	53	Driver		X	FTY R/W	Driver making NB right-turn from Gordon St struck bicyclist traveling WB (opposite adjacent street traffic) on sidewalk.
42	9/14/2013	Saturday	1:08 PM	Bike	X			Day	Dry		Female		59	82	Bike			FTY R/W	Driver traveling WB on US 41 at 2445 Tamiami Trail, approx. 500 feet west of Pine St struck bicyclist that traveled SB across the WB traffic lanes from the WB bike lane. Bicyclist was struck by motorist in the inside through lane. FATAL
43	10/5/2013	Saturday	11:27 PM	Ped		X		Night	Dry	X	Male	H	38	24	Ped			FTY R/W	Driver traveling EB on US 41 struck pedestrian crossing US 41 midblock traveling SB across US 41. Dark - lighted.
44	12/20/2013	Friday	1:33 AM	Bike		X		Night	Dry		Male	H	57	UNK	Driver		X	FTY R/W	Driver making NB right-turn at PetSmart (2416 Tamiami Trail) struck bicyclist traveling WB on sidewalk as he crossed the driveway.
45	2/5/2014	Wednesday	9:09 AM	Bike		X		Day	Dry		Male		39	37	Driver		X	FTY R/W	Driver traveling WB on US 41 turned right into driveway to Tire Kingdom, located 400 feet west of Pine St, struck bicyclist traveling WB in the bike lane (with traffic) as he crossed driveway.
46	3/31/2014	Monday	9:44 PM	Ped		X		Night	Dry		Male		63	42	Ped			FTY R/W	Driver traveling EB on US 41 in center lane struck pedestrian traveling SB across US 41 midblock, approx. 100 feet east of Bayshore Dr, in dark lighted area.
47	6/7/2014	Saturday	2:13 AM	Ped		X		Night	Dry		Male		56	31	Ped			FTY R/W	Driver traveling WB on US 41 in inside lane struck pedestrian traveling across US 41 midblock (unknown direction), east of Shadowlawn Dr, in dark unlighted area.
48	10/30/2014	Thursday	8:50 AM	Ped		X		Day	Dry		Male		54	UNK	Ped	X		FTY R/W	Driver traveling WB on US 41 in outside lane struck pedestrian traveling across US 41 at Shadowlawn Dr signal (opposite adjacent street traffic) on the west leg. Motorist fled scene. Pedestrian was homeless.

Attachment: 2015 FDOT Pedestrian/Bicycle Safety Audit (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial Drive/Palm

Collier County Pedestrian/Bicycle Road Safety Audits

Location: US 41 to Estey Avenue Arterial: Airport Pulling Road
 Study Period: 2009 to 2014 County: Collier
 Number of Years: 5+

NO.	DATE	DAY	TIME	TYPE	FATAL	INJURY	PROP DAMAGE ONLY	DAY/NIGHT	WET/DRY	UNDER INFLUENCE	GENDER PED/BIKE	RACE	AGE OF PED/BIKE	AGE OF DRIVER	AT-FAULT	AT SIGNAL LOCATION	AT DRIVEWAY	CONTRIBUTING CAUSE	COMMENTS
1A	2/5/2009	Thursday	11:58 AM	Bike		X		Day	Dry		Female	C	41	20	Driver		x	FTY R/W	Driver making WB right-turn at 2641 driveway struck tricyclist traveling north (with adjacent street traffic) on sidewalk.
2A	3/5/2009	Thursday	5:38 PM	Bike		X		Day	Dry		Male	H	33	33	Driver		X	FTY R/W	Driver making WB right-turn at Walgreens driveway (north of Davis Blvd) struck bicyclist traveling south (opposite adjacent street traffic) on sidewalk.
3A	4/23/2009	Thursday	2:34 PM	Bike		X		Day	Dry		Male	C	19	64	Driver		X	FTY R/W	Driver making WB right-turn at 1651 Airport Pulling Rd (Home Depot) driveway struck bicyclist traveling north (with adjacent street traffic) on sidewalk.
4A	6/9/2009	Tuesday	11:35 AM	Bike		X		Day	Dry		Male	C	33	64	Driver		X	FTY R/W	Driver making WB right-turn at 2641 driveway struck bicyclist traveling south (opposite adjacent street traffic) on sidewalk.
5A	8/28/2009	Friday	6:58 PM	Ped		X		Day	Dry		Male	C	43	81	Ped			FTY R/W	Pedestrian running WB mid-block across Airport Pulling Rd (100 feet north of Glades Blvd signal) was struck by NB motorist
6A	10/26/2009	Monday	12:08 PM	Bike		X		Day	Dry		Female	C	47	59	Driver		X	FTY R/W	Motorist traveling SB making a left-turn into 1651 Airport Pulling Rd driveway struck bicyclist traveling NB (with adjacent street traffic) on sidewalk.
7A	1/7/2011	Friday	7:13 AM	Bike		X		Day	Dry		Female		45	22	Driver		X	FTY R/W	Driver making WB right-turn at Great Blue Dr. struck bicyclist traveling south (opposite adjacent street traffic) on sidewalk.
8A	12/10/2011	Saturday	1:25 PM	Bike		X		Day	Dry		Male		49	50	Driver		X	FTY R/W	Driver making WB right-turn from driveway at Collier Government Ctr struck bicyclist traveling south (opposite adjacent street traffic) on sidewalk.
9A	1/24/2012	Tuesday	6:26 PM	Ped		X		Night	Dry		Female	H	34	71	Ped			FTY R/W	Pedestrian, wearing dark clothing, walking EB across Airport Pulling Rd, south of Home Depot driveway, was struck by NB motorist; listed as a dark, lighted area.
10A	3/13/2012	Tuesday	5:03 PM	Bike		X		Day	Dry		Male	H	50	68	Driver		X	FTY R/W	Driver making WB right-turn from driveway at Plaza Entrance, south of Estey Ave, struck bicyclist traveling south (opposite adjacent street traffic) on sidewalk.
11A	4/14/2012	Saturday	12:13 PM	Bike		X		Day	Dry		Female	H	16	71	Driver		X	FTY R/W	Driver making WB right-turn at 1651 Airport Pulling Rd (Home Depot) driveway struck bicyclist traveling south (opposite adjacent street traffic) on sidewalk.
12A	8/14/2012	Tuesday	11:52 AM	Bike		X		Day	Dry		Female		50	39	Driver		X	FTY R/W	Driver making WB right-turn at 2641 Airport Pulling Rd driveway struck bicyclist traveling south (opposite adjacent street traffic) on sidewalk.
13A	9/25/2012	Tuesday	6:50 AM	Bike		X		Night	Dry		Male	H	50	16	Driver		X	FTY R/W	Driver making EB right-turn at Caledonia Ave struck bicyclist traveling north (opposite adjacent street traffic) on sidewalk.
14A	11/29/2012	Thursday	3:42 PM	Bike		X		Day	Dry		Male		47	52	Bike	X		FTY R/W	Bicyclist traveling WB (against ped signal) in signalized crosswalk across Peters St/Airport Pulling Rd at US 41 was struck by motorist traveling SB.
15A	12/12/2012	Wednesday	3:37 PM	Bike		X		Day	Dry		Male		51	38	Driver		X	FTY R/W	Driver making WB right-turn from driveway at Collier Government Ctr struck bicyclist traveling south (opposite adjacent street traffic) on sidewalk.
16A	7/27/2013	Saturday	7:50 PM	Bike		X		Day	Dry		Male		56	45	Bike			FTY R/W	Bicyclist traveling west across Airport Pulling Rd near 2272 Airport Pulling Rd collided with motorist traveling SB on Airport Pulling Rd.
17A	9/27/2013	Friday	4:22 PM	Bike		X		Day	Dry		Female	H	13	92	Driver	X		FTY R/W	Bicyclist traveling SB in signalized crosswalk across Glades Blvd was struck by motorist attempting a WB right-turn on red.
18A	10/15/2013	Tuesday	4:00 PM	Bike		X		Day	Dry		Male	H	17	23	Bike			FTY R/W	Bicyclist traveling WB across Airport Pulling Rd from 2601 Airport Pulling Rd was struck by NB motorist.
19A	12/30/2013	Monday	6:05 AM	Bike		X		Night	Dry		Female		45	56	Driver	X		FTY R/W	Bicyclist traveling NB in signalized crosswalk across Davis Blvd was struck by motorist attempting a WB right-turn on red.
20A	1/14/2014	Tuesday	11:50 AM	Bike		X		Day	Dry		Male	H	25	59	Driver		X	FTY R/W	Driver making WB right-turn at 2641 Airport Pulling Rd driveway struck bicyclist traveling south (opposite adjacent street traffic) on sidewalk.
21A	5/1/2014	Thursday	5:40 PM	Bike		X		Day	Dry		Female	H	53	90	Driver	X		FTY R/W	Motorist traveling SB on Airport Pulling Rd making a right-turn on red collided with a bicyclist crossing Estey Ave NB at signalized crosswalk.

Collier County Pedestrian/Bicycle Road Safety Audits

Location: US 41 to Estey Avenue Arterial: Airport Pulling Road
 Study Period: 2009 to 2014 County: Collier
 Number of Years: 5+

NO.	DATE	DAY	TIME	TYPE	FATAL	INJURY	PROP DAMAGE ONLY	DAY/NIGHT	WET/DRY	UNDER INFLUENCE	GENDER PED/BIKE	RACE	AGE OF PED/BIKE	AGE OF DRIVER	AT-FAULT	AT SIGNAL LOCATION	AT DRIVEWAY	CONTRIBUTING CAUSE	COMMENTS
22A	5/18/2014	Sunday	10:14 AM	Bike		X		Day	Dry		Male	H	26	24	Driver		X	FTY R/W	Driver making WB right-turn from driveway at 2001 Airport Pulling Rd struck bicyclist traveling south (opposite adjacent street traffic) on sidewalk.
23A	6/11/2014	Wednesday	5:00 PM	Bike		X		Day	Dry		Female		29	23	Bike	X		FTY R/W	NB motorist making left-turn on green arrow at Estey Ave struck a bicyclist traveling SB in the crosswalk across Estey Ave.
24A	9/26/2014	Friday	10:33 AM	Bike		X		Day	Dry		Male		32	38	Driver	X		FTY R/W	Motorist traveling SB on Airport Pulling Rd making a right-turn on red collided with a bicyclist WB in crosswalk on the north leg of Airport Pulling Rd.



APPENDIX D

Pedestrian/Bicyclist Counts



**Pedestrian/Bicyclist Counts
January 14 and 15, 2015**



Time	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
7:00-7:15	-	-	-	-	-	-	-	-	-	-
7:15-7:30	-	-	-	-	-	-	-	-	-	-
7:30-7:45	-	1	-	2	-	-	-	-	-	-
7:45-8:00	-	1	-	1	-	-	-	-	-	-
TOTAL	-	2	-	3	-	-	-	-	-	-
8:00-8:15	-	-	-	1	-	-	-	-	-	-
8:15-8:30	-	1	-	-	-	-	-	-	-	-
8:30-8:45	-	-	-	-	-	-	-	-	-	-
8:45-9:00	1	1	-	-	-	-	-	-	-	-
TOTAL	1	1/1	-	1	-	-	-	-	-	-
9:00-9:15	-	1	1	-	-	-	-	-	-	-
9:15-9:30	-	-	-	-	-	-	-	-	-	-
9:30-9:45	-	-	-	-	-	-	-	-	-	-
9:45-10:00	-	-	-	-	-	-	-	-	-	-
TOTAL	-	1	1	-	-	-	-	-	-	-



Time	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
10:00-10:15	-	-	-	-	-	-	-	-	-	-
10:15-10:30	-	-	-	-	-	-	-	-	-	-
10:30-10:45	-	-	-	-	-	-	-	-	-	-
10:45-11:00	-	-	-	-	-	-	-	-	-	-
TOTAL	-	-	-	-	-	-	-	-	-	-
11:00-11:15	-	-	-	1	-	-	-	-	-	-
11:15-11:30	-	-	-	-	-	-	-	-	-	-
11:30-11:45	-	-	1	-	-	-	-	-	-	-
11:45-12:00	-	-	1	-	-	-	-	-	-	-
TOTAL	-	-	1/1	1	-	-	-	-	-	-
12:00-12:15	-	-	-	-	1	-	-	-	-	-
12:15-12:30	3	-	-	-	1	1	-	-	-	-
12:30-12:45	-	1	-	-	-	-	-	-	-	-
12:45-13:00	-	1/1	-	-	-	-	-	-	-	-
TOTAL	3	1/2	-	-	2	1	-	-	-	-



Time	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
13:00-13:15	-	-	-	-	-	-	-	-	-	-
13:15-13:30	-	-	-	1	-	-	-	-	-	-
13:30-13:45	1	-	-	-	-	-	-	-	-	-
13:45-14:00	1	-	1	-	-	-	-	1	-	-
TOTAL	2	-	1	1	-	-	-	1	-	-
14:00-14:15	-	-	-	-	-	-	1	-	-	-
14:15-14:30	-	-	-	-	-	-	-	1	-	-
14:30-14:45	-	-	-	-	-	-	-	-	-	-
14:45-15:00	-	-	-	-	1	-	-	2	-	-
TOTAL	-	-	-	-	1	-	1	3	-	-
15:00-15:15	1	-	-	-	2	-	-	1	-	-
15:15-15:30	1	-	-	-	-	-	-	-	-	-
15:30-15:45	3/1	1/2	-	-	-	-	-	1	-	-
15:45-16:00	-	1/3	-	1	-	-	-	2	-	-
TOTAL	4/2	2/5	-	1	2	-	-	4	-	-



Time	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
16:00-16:15	1/3	1/1	-	-	-	-	-	-	-	-
16:15-16:30	1	1	-	-	-	-	-	-	-	-
16:30-16:45	2	1	-	-	-	-	1	-	-	-
16:45-17:00	-	-	-	-	-	-	-	-	-	-
TOTAL	3/4	2/2	-	-	-	-	1	-	-	-
17:00-17:15	1	-	1	-	-	-	-	-	-	-
17:15-17:30	-	-	2	-	-	-	1	-	-	-
17:30-17:45	3/1	1	-	-	1	-	-	-	-	-
17:45-18:00	2	-	-	1/1	-	-	-	-	-	-
TOTAL	5/2	1	3	1/1	1	-	1	-	-	-

7-8 AM	2	3	0	0	0
8-9 AM	3	1	0	0	0
9-10 AM	1	0	0	0	0
10-11 AM	0	0	0	0	0
11-12 PM	0	1	0	0	0
12 - 1 PM	6	0	3	0	0
1-2 PM	2	1	0	1	0
2-3 PM	0	0	1	4	0
3-4 PM	13	1	2	4	0
4-5 PM	11	0	0	1	0
5-6 PM	8	2	1	1	0

VALVOLINE INSTANT OIL CHANGE



Time	EB	WB	EB	WB	EB	WB
7:00-7:15	-	-	-	-	-	-
7:15-7:30	1	-	-	1	3	-
7:30-7:45	-	-	-	-	3	1/1
7:45-8:00	-	3	-	-	-	-
TOTAL	1	3	-	1	6	1/1
8:00-8:15	-	-	1/1	-	1	-
8:15-8:30	-	-	-	-	1	1/1
8:30-8:45	1	-	-	-	1	-
8:45-9:00	1	3	-	-	1	-
TOTAL	2	3	1/1	-	1/3	1/1
9:00-9:15	-	1	-	-	2	-
9:15-9:30	-	-	-	-	1	-
9:30-9:45	-	-	-	-	-	-
9:45-10:00	-	-	-	-	1	-
TOTAL	-	1	-	-	1/3	-



Time	EB	WB	EB	WB	EB	WB
10:00-10:15	-	-	-	-	1	-
10:15-10:30	1	-	-	-	-	-
10:30-10:45	-	-	-	-	3	-
10:45-11:00	-	-	-	-	-	-
TOTAL	1				4	
11:00-11:15	-	-	-	1	-	-
11:15-11:30	-	-	-	1	1	1
11:30-11:45	-	-	-	-	-	-
11:45-12:00	1	1	-	1	1/1	-
TOTAL	1	1		3	2/1	1
12:00-12:15	-	-	-	-	1	-
12:15-12:30	-	-	-	-	2	2
12:30-12:45	-	-	-	-	-	-
12:45-13:00	-	1	-	-	-	-
TOTAL		1			2/1	2



Time	EB	WB	EB	WB	EB	WB
13:00-13:15	-	-	-	-	-	2
13:15-13:30	1	1	-	-	1	2
13:30-13:45	-	-	-	-	-	-
13:45-14:00	1	-	-	-	-	-
TOTAL	1/1	1			1	4
14:00-14:15	1	-	-	-	-	-
14:15-14:30	-	1	-	-	-	-
14:30-14:45	-	-	1	1	-	-
14:45-15:00	1	-	-	-	-	-
TOTAL	1/1	1	1	1		
15:00-15:15	3	1	-	1	-	-
15:15-15:30	-	-	-	3	-	-
15:30-15:45	-	-	-	3	-	-
15:45-16:00	-	2	-	-	-	1
TOTAL	3	3		1/6		1

VALVOLINE INSTANT OIL CHANGE



Time	EB	WB	EB	WB	EB	WB
16:00-16:15	-	-	-	-	-	-
16:15-16:30	-	-	1/2	-	1	-
16:30-16:45	-	-	1/1	3/1	-	1
16:45-17:00	-	-	-	1	1	-
TOTAL			2/3	3/2	1/1	1
17:00-17:15	-	-	-	-	-	-
17:15-17:30	-	-	-	-	1	-
17:30-17:45	-	-	-	-	1	-
17:45-18:00	-	-	1	1	1	1
TOTAL			1	1	1/2	1

7-8 AM	4	1	8
8-9 AM	5	2	6
9-10 AM	1	0	4
10-11 AM	1	0	4
11-12 PM	2	3	4
12 - 1 PM	1	0	5
1-2 PM	3	0	5
2-3 PM	3	2	0
3-4 PM	6	7	1
4-5 PM	0	10	3
5-6 PM	0	2	3



Time	EB	WB	EB	WB	EB	WB	EB	WB
7:00-7:15	2	-	1	-	1	-	-	-
7:15-7:30	1	-	2	-	-	-	3/2	-
7:30-7:45	1/1	-	1/1	1/1	1	1	2	1
7:45-8:00	-	-	1/2	-	3	-	2/3	1
TOTAL	1/4		5/3	1/1	5	1	7/5	1/1
8:00-8:15	2/1	1	-	-	-	-	3	1
8:15-8:30	1	1	1	1	1/3	1	1/1	3/1
8:30-8:45	-	-	1	1	-	1	3	1/2
8:45-9:00	1	-	1	-	-	-	-	2
TOTAL	2/3	2	3	2	1/3	2	4/4	4/6
9:00-9:15	-	-	-	-	1	-	1	1
9:15-9:30	-	-	-	1	-	1	-	1
9:30-9:45	1	-	1	-	1	3/1	-	2/2
9:45-10:00	-	-	1	-	-	1	2	-
TOTAL	1		2	1	1/1	3/3	3	3/3

Attachment: 2015 FDOT Pedestrian/Bicycle Safety Audit (4984 : Arterial Safety Study -



Time	EB	WB	EB	WB	EB	WB	EB	WB
10:00-10:15	1	-	-	2/1	-	1	-	1
10:15-10:30	-	-	1	-	-	2	1/1	1/1
10:30-10:45	2/1	-	-	-	1	-	1	2
10:45-11:00	1	-	-	-	-	1	1	-
TOTAL	4/1		1	2/1	1	4	3/1	3/2
11:00-11:15	1	-	-	2	-	1/2	4/4	-
11:15-11:30	1	-	1	-	-	1	1/1	-
11:30-11:45	-	-	-	-	1	1	2/1	1
11:45-12:00	-	1	-	1	-	-	-	-
TOTAL	1/1	1	1	3	1	1/4	7/6	1
12:00-12:15	2	2/1	-	-	-	1	-	1/2
12:15-12:30	2	1	1	-	2	-	-	1
12:30-12:45	3	2	-	1	-	-	-	-
12:45-13:00	1	-	-	-	1/1	2	-	1/2
TOTAL	2/6	3/3	1	1	1/3	3		2/5

Attachment: 2015 FDOT Pedestrian/Bicycle Safety Audit (4984 : Arterial Safety Study -



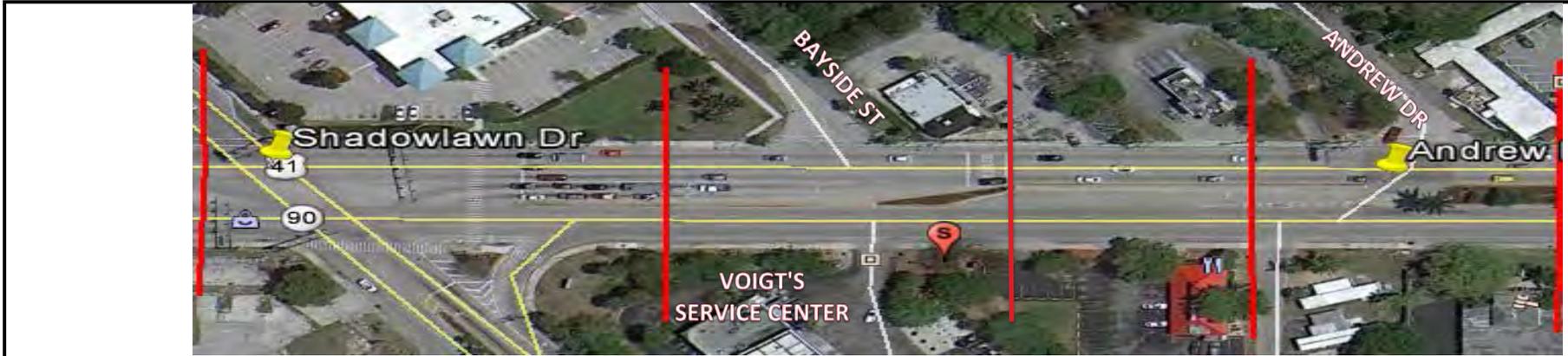
Time	EB	WB	EB	WB	EB	WB	EB	WB
13:00-13:15	2	2	-	2	2	-	2	1
13:15-13:30	-	2	-	-	1	-	2	2
13:30-13:45	1	-	1/2	1	2	-	2	2
13:45-14:00	-	-	-	2	1/1	1	1	1
TOTAL	3	4	1/2	5	6/1	1	7	5/1
14:00-14:15	1	1	-	1	-	1	-	-
14:15-14:30	-	-	1	1	-	-	-	-
14:30-14:45	1	-	-	1	1	1	2	3/1
14:45-15:00	-	1/1	-	-	1/1	1	2/1	1/1
TOTAL	1/1	2/1	1	2/1	1/2	2/1	4/1	4/2
15:00-15:15	-	1	-	-	-	-	-	-
15:15-15:30	2	1/2	1	2	1	2	-	5
15:30-15:45	-	-	1	2	-	1/1	-	1/1
15:45-16:00	1	1	1	-	1	-	1/2	-
TOTAL	2/1	3/2	2/1	2/2	1/1	3/1	1/2	1/6

Attachment: 2015 FDOT Pedestrian/Bicycle Safety Audit (4984 : Arterial Safety Study -



Time	EB	WB	EB	WB	EB	WB	EB	WB
16:00-16:15	1	1	1	-	-	2	4	2/3
16:15-16:30	1	-	-	-	1	-	-	1/2
16:30-16:45	2/2	1/1	1	-	-	1	2	5/5
16:45-17:00	1/1	-	-	-	1	1	2/7	1
TOTAL	3/5	1/2	2		2	1/3	8/7	9/10
17:00-17:15	1/2	2/3	-	1	1	2	-	1/1
17:15-17:30	1	1	-	1	-	2	1	2
17:30-17:45	1	3	2/1	2	-	-	-	1
17:45-18:00	1/3	5	1	-	-	1	3/1	1
TOTAL	2/7	7/7	2/2	4	1	5	3/2	2/4
7-8 AM	5		10		6		14	
8-9 AM	7		5		6		18	
9-10 AM	1		3		8		9	
10-11 AM	5		4		5		9	
11-12 PM	3		4		6		14	
12 - 1 PM	14		2		7		7	
1-2 PM	7		8		8		13	
2-3 PM	5		4		6		11	
3-4 PM	8		7		6		10	
4-5 PM	11		2		6		34	
5-6 PM	23		5		6		11	

Attachment: 2015 FDOT Pedestrian/Bicycle Safety Audit (4984 : Arterial Safety Study -



Time	EB	WB	EB	WB	EB	WB	EB	WB
7:00-7:15	-	2	1	2	-	-	-	2
7:15-7:30	4/4	-	1/1	2	1	1/2	1/1	2
7:30-7:45	9/8	2	3/2	1	-	-	1	3/1
7:45-8:00	16/10	-	1/1	2	1	1/1	-	3/2
TOTAL	29/22	2/2	6/4	7	1/1	2/3	2/1	8/5
8:00-8:15	7/10	-	-	-	-	2	3	2
8:15-8:30	11/6	-	1	-	2	5	-	5/6
8:30-8:45	3/6	1	-	1	8	7	5/2	2/2
8:45-9:00	5	6	2	1	2/1	1/2	-	2/2
TOTAL	21/27	1/6	3	1/1	10/3	15/2	8/2	9/12
9:00-9:15	2	1/3	1	1	-	-	1	1
9:15-9:30	2	1	-	-	-	-	1	1
9:30-9:45	2/8	3/4	-	-	1	1/2	3	4/1
9:45-10:00	2/1	6/5	-	-	-	1	-	1/1
TOTAL	6/11	10/13	1	1	1	1/3	5	6/3

Attachment: 2015 FDOT Pedestrian/Bicycle Safety Audit (4984 : Arterial Safety Study -



Time	EB	WB	EB	WB	EB	WB	EB	WB
10:00-10:15	3/2	1	2	-	2	-	-	3/2
10:15-10:30	1/5	-	1	-	-	-	1	6
10:30-10:45	2/1	1/3	-	-	1	-	-	3/4
10:45-11:00	6/4	1/3	1	1	-	1/1	1	1/1
TOTAL	12/12	3/6	3/1	1	2/1	1/1	1/1	7/13
11:00-11:15	9/4	3	-	1	1	-	1	3
11:15-11:30	1/5	2/1	-	2	-	-	1	4
11:30-11:45	1	-	2	-	1	-	2	2
11:45-12:00	-	2/1	-	-	-	1	-	-
TOTAL	10/10	4/5	2	3	1/1	1	4	4/5
12:00-12:15	1	1	-	-	1	-	1	1
12:15-12:30	1	1	1	-	2	-	4	1
12:30-12:45	-	2/1	-	-	1	-	3	1
12:45-13:00	1	-	-	-	-	-	-	1
TOTAL	2/1	3/2	1		4		8	4

Attachment: 2015 FDOT Pedestrian/Bicycle Safety Audit (4984 : Arterial Safety Study -



Time	EB	WB	EB	WB	EB	WB	EB	WB
13:00-13:15	1/8	3	2	-	-	1	2	6
13:15-13:30	5/6	1	-	-	-	-	-	3/2
13:30-13:45	1	1/1	-	-	1	5	-	1
13:45-14:00	2/2	2	-	-	1	2	2	-
TOTAL	8/17	1/7	2		1/1	5/3	2/2	3/9
14:00-14:15	1/1	1/1	-	1	-	1/1	1	-
14:15-14:30	-	1/2	-	-	-	1	3	-
14:30-14:45	2	2/2	3	1/1	1	2/2	2/1	-
14:45-15:00	1/3	1	2	-	1	1	1	-
TOTAL	4/4	4/6	2/3	1/2	1/1	5/3	6/2	
15:00-15:15	1	2	1	-	1/2	1	1/1	2
15:15-15:30	2/3	2	-	1	1/2	4/1	3	1/3
15:30-15:45	2/1	2	-	-	-	1/1	-	3
15:45-16:00	1	2	1	5	1/2	-	-	1/2
TOTAL	5/5	6/2	2	6	3/6	6/2	4/1	2/10

Attachment: 2015 FDOT Pedestrian/Bicycle Safety Audit (4984 : Arterial Safety Study -



Time	EB	WB	EB	WB	EB	WB	EB	WB
16:00-16:15	2/5	1	1	-	1/2	1	2/1	-
16:15-16:30	1	2	-	-	1	1	1	1
16:30-16:45	6/2	1/7	2	-	3/4	4	2/2	4
16:45-17:00	2/3	-	1	-	1/2	1	2	2/6
TOTAL	11/10	1/10	4		5/9	2/5	6/4	3/10
17:00-17:15	2/5	4/1	1	2	1	2	1	1
17:15-17:30	3	4/2	-	-	3/2	2	2/1	2/6
17:30-17:45	3/2	1	1	-	1	1/1	2	6
17:45-18:00	2/1	9/4	1/2	2	1/1	2/1	-	1/6
TOTAL	10/8	17/8	2/3	4	5/4	5/4	4/2	4/18
7-8 AM	55		17		7		16	
8-9 AM	55		5		30		31	
9-10 AM	40		2		5		14	
10-11 AM	33		5		5		22	
11-12 PM	29		5		3		13	
12 - 1 PM	8		1		4		12	
1-2 PM	33		2		10		16	
2-3 PM	18		8		10		8	
3-4 PM	18		8		17		17	
4-5 PM	32		4		21		23	
5-6 PM	43		9		18		28	

Attachment: 2015 FDOT Pedestrian/Bicycle Safety Audit (4984 : Arterial Safety Study -



Time	EB	WB	EB	WB	EB	WB
7:00-7:15	-	-	-	-	-	-
7:15-7:30	1	-	-	-	-	-
7:30-7:45	-	1	-	-	-	-
7:45-8:00	-	-	-	-	-	-
TOTAL	1	1	-	-	-	-
8:00-8:15	-	-	-	-	-	-
8:15-8:30	-	-	-	-	-	-
8:30-8:45	-	-	-	-	-	-
8:45-9:00	-	-	-	-	-	-
TOTAL	-	-	-	-	-	-
9:00-9:15	-	-	-	-	-	-
9:15-9:30	-	-	-	-	-	-
9:30-9:45	1/1	1	-	-	-	-
9:45-10:00	1	1	-	-	-	-
TOTAL	1/2	2	-	-	-	-



Time	EB	WB	EB	WB	EB	WB
10:00-10:15	1	1/1	-	-	-	-
10:15-10:30	1	-	-	-	-	-
10:30-10:45	-	-	-	-	1	-
10:45-11:00	1	1	-	-	-	1
TOTAL	1/2	2/1	-	-	1	1
11:00-11:15	-	-	-	-	-	1
11:15-11:30	-	-	-	-	-	-
11:30-11:45	-	-	-	-	-	-
11:45-12:00	-	-	-	-	1	2
TOTAL	-	-	-	-	1	3
12:00-12:15	1	-	-	-	-	1
12:15-12:30	-	-	-	-	3	2
12:30-12:45	3	1	2	-	-	5
12:45-13:00	-	2	-	2	-	-
TOTAL	4	1/2	2	2	3	7/1



Time	EB	WB	EB	WB	EB	WB
13:00-13:15	1	4	1	-	2	-
13:15-13:30	1	1	-	-	-	-
13:30-13:45	2/2	-	-	-	-	1
13:45-14:00	-	-	1	-	-	-
TOTAL	4/2	5	2	-	2	1
14:00-14:15	-	2	-	-	-	-
14:15-14:30	2	-	-	-	2	1
14:30-14:45	-	-	-	-	-	-
14:45-15:00	3	1	-	-	-	-
TOTAL	5	1/2	-	-	2	1
15:00-15:15	1	1/3	-	2	-	1
15:15-15:30	-	1	-	-	-	-
15:30-15:45	-	1	-	-	-	1
15:45-16:00	-	1	-	-	-	-
TOTAL	1	3/4	-	2	-	1/1



Time	EB	WB	EB	WB	EB	WB
16:00-16:15	2	1/1	-	-	-	1
16:15-16:30	1	3/1	-	-	-	-
16:30-16:45	3	6	-	-	-	-
16:45-17:00	1/2	3	-	1	-	-
TOTAL	4/5	10/5	-	1	-	1
17:00-17:15	1	2	-	-	-	-
17:15-17:30	3	1	-	-	1	-
17:30-17:45	2	2	-	-	-	-
17:45-18:00	1/1	-	-	-	-	-
TOTAL	4/4	1/4	-	-	1	-
7-8 AM	2		0		0	
8-9 AM	0		0		0	
9-10 AM	5		0		0	
10-11 AM	6		0		1	
11-12 PM	0		0		4	
12 - 1 PM	7		4		11	
1-2 PM	11		2		3	
2-3 PM	8		0		3	
3-4 PM	8		2		2	
4-5 PM	24		1		1	
5-6 PM	13		0		1	



Time	EB	WB	EB	WB
7:00-7:15	2	1/1	-	-
7:15-7:30	-	-	2	1
7:30-7:45	-	-	-	-
7:45-8:00	-	1	-	-
TOTAL	2	2/1	2	1
8:00-8:15	-	-	-	-
8:15-8:30	-	-	-	-
8:30-8:45	-	-	-	-
8:45-9:00	-	2/1	-	-
TOTAL	-	2/1	-	-
9:00-9:15	-	-	-	-
9:15-9:30	1/1	-	-	-
9:30-9:45	-	-	-	-
9:45-10:00	-	-	-	-
TOTAL	1/1	-	-	-



Time	EB	WB	EB	WB
10:00-10:15	1	-	1	-
10:15-10:30	-	-	-	-
10:30-10:45	1	2	-	-
10:45-11:00	1/1	1	-	-
TOTAL	2/2	3	1	-
11:00-11:15	-	-	-	-
11:15-11:30	-	-	-	-
11:30-11:45	-	-	-	-
11:45-12:00	-	-	-	-
TOTAL	-	-	-	-
12:00-12:15	2	-	-	-
12:15-12:30	-	3	-	-
12:30-12:45	-	-	-	1
12:45-13:00	1	-	-	-
TOTAL	3	3	-	1



Time	EB	WB	EB	WB
13:00-13:15	2	-	-	-
13:15-13:30	-	-	3	-
13:30-13:45	-	-	-	-
13:45-14:00	-	-	-	-
TOTAL	2	-	3	-
14:00-14:15	-	-	-	-
14:15-14:30	1	1	1/2	-
14:30-14:45	-	-	-	-
14:45-15:00	-	-	-	-
TOTAL	1	1	1/2	-
15:00-15:15	-	-	-	-
15:15-15:30	-	-	-	-
15:30-15:45	-	1	-	-
15:45-16:00	2	1	-	1/1
TOTAL	2	2	-	1/1



Time	EB	WB	EB	WB
16:00-16:15	-	-	-	-
16:15-16:30	-	1	-	2
16:30-16:45	-	-	1	-
16:45-17:00	1	-	-	-
TOTAL	1	1	1	2
17:00-17:15	-	-	1	-
17:15-17:30	2/1	-	-	-
17:30-17:45	-	-	-	1/1
17:45-18:00	2	1	3	1
TOTAL	4/1	1	4	2/1
7-8 AM	5		3	
8-9 AM	3		0	
9-10 AM	2		0	
10-11 AM	7		1	
11-12 PM	0		0	
12 - 1 PM	6		1	
1-2 PM	2		3	
2-3 PM	2		3	
3-4 PM	4		2	
4-5 PM	2		3	
5-6 PM	6		7	



Time	EB	WB	EB	WB
7:00-7:15	1	-	1	-
7:15-7:30	1	1	1	-
7:30-7:45	-	-	1	1/1
7:45-8:00	1	1	-	1
TOTAL	3	2	2/1	1/2
8:00-8:15	-	-	-	1/2
8:15-8:30	-	-	1	-
8:30-8:45	-	-	-	-
8:45-9:00	1	1	1	-
TOTAL	1	1	1/1	1/2
9:00-9:15	-	-	-	-
9:15-9:30	-	-	5/2	2/1
9:30-9:45	1	-	1	2/1
9:45-10:00	1	-	5	-
TOTAL	1/1	-	11/2	4/2



Time	EB	WB	EB	WB
10:00-10:15	1	-	-	-
10:15-10:30	-	-	1	1
10:30-10:45	-	-	-	-
10:45-11:00	-	-	-	1
TOTAL	1	-	1	2
11:00-11:15	-	-	1/1	1
11:15-11:30	-	-	-	1/1
11:30-11:45	-	-	1/1	2
11:45-12:00	1	-	2/1	2/1
TOTAL	1	-	4/3	5/3
12:00-12:15	-	-	1	-
12:15-12:30	-	2	-	1
12:30-12:45	-	-	-	-
12:45-13:00	-	-	-	-
TOTAL	-	2	1	1



Time	EB	WB	EB	WB
13:00-13:15	1	1	3	-
13:15-13:30	-	1	-	2
13:30-13:45	-	-	1	1
13:45-14:00	-	-	1	1
TOTAL	1	2	5	3/1
14:00-14:15	2	1	-	1
14:15-14:30	1/2	-	-	-
14:30-14:45	-	-	-	-
14:45-15:00	-	3	-	3
TOTAL	3/2	4	-	4
15:00-15:15	2/1	-	2	-
15:15-15:30	-	1/3	1	1/1
15:30-15:45	-	1	1	2
15:45-16:00	-	1/2	-	1
TOTAL	2/1	3/5	3/1	4/1



Time	EB	WB	EB	WB
16:00-16:15	-	2	1	2
16:15-16:30	-	-	2	-
16:30-16:45	1	4	1	-
16:45-17:00	1/1	-	-	2
TOTAL	1/2	6	4	4
17:00-17:15	1	1	5	-
17:15-17:30	-	1	-	-
17:30-17:45	2/1	-	2	-
17:45-18:00	1	1	-	-
TOTAL	3/2	3	7	-
7-8 AM	5		6	
8-9 AM	2		5	
9-10 AM	2		19	
10-11 AM	1		3	
11-12 PM	1		15	
12 - 1 PM	2		2	
1-2 PM	3		9	
2-3 PM	9		4	
3-4 PM	11		9	
4-5 PM	9		8	
5-6 PM	8		7	



Time	EB	WB	EB	WB
7:00-7:15	-	1	-	-
7:15-7:30	1	-	-	1
7:30-7:45	-	1	-	1
7:45-8:00	-	-	-	-
TOTAL	1	2	-	2
8:00-8:15	-	2	-	-
8:15-8:30	-	1	-	2
8:30-8:45	-	-	-	-
8:45-9:00	2	2	-	-
TOTAL	2	1/4	-	2
9:00-9:15	-	-	-	2
9:15-9:30	1	-	-	-
9:30-9:45	3/1	2	-	-
9:45-10:00	2	1	-	1
TOTAL	5/2	3	-	3



Time	EB	WB	EB	WB
10:00-10:15	1	1	1	-
10:15-10:30	1	1	-	1
10:30-10:45	1	-	-	-
10:45-11:00	4	1/1	-	-
TOTAL	2/5	3/1	1	1
11:00-11:15	1	4/1	1	1
11:15-11:30	-	1	-	-
11:30-11:45	-	2	1	-
11:45-12:00	2	-	-	-
TOTAL	3	7/1	2	1
12:00-12:15	-	3	1	-
12:15-12:30	-	1/1	1	-
12:30-12:45	1	1	-	-
12:45-13:00	1	3	-	-
TOTAL	1/1	7/2	2	-



Time	EB	WB	EB	WB
13:00-13:15	1/1	-	-	-
13:15-13:30	-	3	2	-
13:30-13:45	-	-	-	-
13:45-14:00	3	-	-	-
TOTAL	4/1	3	2	-
14:00-14:15	-	-	1	-
14:15-14:30	-	-	-	-
14:30-14:45	-	-	-	-
14:45-15:00	1	-	-	-
TOTAL	1	-	1	-
15:00-15:15	-	-	-	2
15:15-15:30	3	-	-	-
15:30-15:45	1	2/1	-	-
15:45-16:00	3	1	-	-
TOTAL	6/1	3/1	-	2



Time	EB	WB	EB	WB
16:00-16:15	-	-	-	-
16:15-16:30	-	1	-	-
16:30-16:45	1/1	2	2	-
16:45-17:00	-	-	-	1
TOTAL	1/1	2/1	2	1
17:00-17:15	-	-	-	-
17:15-17:30	1	1	-	-
17:30-17:45	1	1/1	-	-
17:45-18:00	1	2/1	-	-
TOTAL	3	3/3	-	-
7-8 AM	3			2
8-9 AM	7			2
9-10 AM	10			3
10-11 AM	11			2
11-12 PM	11			3
12 - 1 PM	11			2
1-2 PM	8			2
2-3 PM	1			1
3-4 PM	11			2
4-5 PM	5			3
5-6 PM	9			0



Time	EB	WB	EB	WB
7:00-7:15	-	-	-	-
7:15-7:30	-	1	1/1	-
7:30-7:45	1	-	-	1
7:45-8:00	-	-	-	1
TOTAL	1	1	1/1	1/1
8:00-8:15	-	-	-	-
8:15-8:30	-	-	2	-
8:30-8:45	-	-	1	-
8:45-9:00	-	-	-	-
TOTAL	-	-	2/1	-
9:00-9:15	-	-	-	-
9:15-9:30	-	-	-	-
9:30-9:45	-	-	1	2
9:45-10:00	-	-	-	-
TOTAL	-	-	1	2



Time	EB	WB	EB	WB
10:00-10:15	-	-	-	-
10:15-10:30	-	-	-	-
10:30-10:45	-	-	-	-
10:45-11:00	-	1	-	-
TOTAL	-	1	-	-
11:00-11:15	-	-	-	-
11:15-11:30	-	-	-	-
11:30-11:45	-	1	-	-
11:45-12:00	2	-	-	-
TOTAL	2	1	-	-
12:00-12:15	-	-	-	-
12:15-12:30	-	-	-	-
12:30-12:45	-	-	-	-
12:45-13:00	-	-	-	-
TOTAL	-	-	-	-



Time	EB	WB	EB	WB
13:00-13:15	-	-	1	-
13:15-13:30	-	-	-	-
13:30-13:45	-	-	-	-
13:45-14:00	-	-	1	-
TOTAL	-	-	2	-
14:00-14:15	-	-	1/3	1
14:15-14:30	-	-	-	2
14:30-14:45	-	-	-	-
14:45-15:00	-	-	-	-
TOTAL	-	-	1/3	2/1
15:00-15:15	-	-	-	-
15:15-15:30	-	-	-	-
15:30-15:45	-	-	1	-
15:45-16:00	-	-	-	-
TOTAL	-	-	1	-



Time	EB	WB	EB	WB
16:00-16:15	1	-	-	1
16:15-16:30	-	-	-	-
16:30-16:45	-	-	1	-
16:45-17:00	-	-	-	-
TOTAL	1	-	1	1
17:00-17:15	-	1	-	-
17:15-17:30	-	-	1	-
17:30-17:45	-	-	-	1
17:45-18:00	-	-	-	-
TOTAL	-	-	1	1
7-8 AM		2		4
8-9 AM		0		3
9-10 AM		0		3
10-11 AM		1		0
11-12 PM		3		0
12 - 1 PM		0		0
1-2 PM		0		2
2-3 PM		0		7
3-4 PM		0		1
4-5 PM		1		2
5-6 PM		0		2



Time	EB	WB	EB	WB	EB	WB	EB	WB
7:00-7:15	1	-	-	-	-	-	-	-
7:15-7:30	1	-	-	-	2	-	-	1
7:30-7:45	5	-	2	-	-	5	-	2
7:45-8:00	5	-	2	-	4	4	2	4
TOTAL	12	-	4	-	6	9	2	7
8:00-8:15	4	2	1	1	3	3	-	3
8:15-8:30	3	-	2	-	10	5	-	4
8:30-8:45	4	-	1	-	4	2/1	-	2
8:45-9:00	5	-	-	-	4	5	-	9
TOTAL	16	2	4	1	21	15/1	-	18
9:00-9:15	5	2	-	-	9	3	1	8
9:15-9:30	5	3	2	1	7/1	1/1	-	6
9:30-9:45	5	3	1	-	2/1	1	1	10
9:45-10:00	5	1	1	-	7	-	-	7
TOTAL	20	9	4	1	25/2	5/1	2	31



Time	EB	WB	EB	WB	EB	WB	EB	WB
10:00-10:15	5	1	1	-	-	6	-	1
10:15-10:30	5	-	-	-	7	1	-	6
10:30-10:45	5	3	-	-	13/1	-	-	8
10:45-11:00	5/1	-	1	-	10	-	-	9
TOTAL	20/1	4	2	-	30/1	6/1	-	24
11:00-11:15	5	-	2	1	12	-	1	5
11:15-11:30	5	2	-	-	6	-	2	7
11:30-11:45	5	3	-	-	7	-	-	7
11:45-12:00	5	-	1	1	8	-	3	10
TOTAL	20	5	3	2	33	-	6	29
12:00-12:15	5	3	-	2	8/1	-	-	6
12:15-12:30	5	5	1	-	11/1	-	2	9
12:30-12:45	5	3/1	2	-	9	-	1	5
12:45-13:00	5/1	-	-	-	12	-	2	8
TOTAL	20/1	11/1	3	2	40/2	-	5	28



Time	EB	WB	EB	WB	EB	WB	EB	WB
13:00-13:15	5	1	-	-	7	-	-	3
13:15-13:30	5	2	1	-	9	-	2	7
13:30-13:45	5	-	-	-	10/1	-	2	8
13:45-14:00	5	3	1	-	13	-	2	6
TOTAL	20	6	2	-	39/1	-	6	24
14:00-14:15	5/1	1	-	-	20	-	5	9
14:15-14:30	5	1	-	-	7/2	-	1	7
14:30-14:45	5	3	-	-	7	3	-	4
14:45-15:00	5	2	-	-	10	-	-	5
TOTAL	20/1	7	-	-	44/2	3	6	25
15:00-15:15	5	5	-	-	10	-	-	6
15:15-15:30	5	-	-	-	7	-	-	4
15:30-15:45	5	2	-	-	4/1	-	1	5
15:45-16:00	5	-	-	-	8/2	-	-	-
TOTAL	20	7	-	-	29/3	-	1	15

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Time	EB	WB	EB	WB	EB	WB	EB	WB
16:00-16:15	5	-	-	-	11	-	-	10
16:15-16:30	5	2	-	-	17	-	-	5
16:30-16:45	5	2	-	-	8	-	-	5
16:45-17:00	5	-	-	-	10	-	-	5
TOTAL	20	4	-	-	46	-	-	25
17:00-17:15	5	2	-	-	6	-	2	7
17:15-17:30	5	-	-	-	8	-	-	3
17:30-17:45	5	1	-	-	7	-	-	-
17:45-18:00	5	3	-	-	7	-	2	6
TOTAL	20	6	-	-	28	-	2	16
7-8 AM		12		4		14		9
8-9 AM		18		5		37		18
9-10 AM		29		5		33		33
10-11 AM		25		2		38		24
11-12 PM		25		5		33		35
12 - 1 PM		33		5		42		33
1-2 PM		26		2		40		30
2-3 PM		28		0		49		31
3-4 PM		27		0		32		16
4-5 PM		24		0		46		25
5-6 PM		26		0		28		18



Time	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
7:00-7:15	-	-	-	-	-	-	-	-	-	-
7:15-7:30	-	-	-	-	-	-	-	-	1	1/2
7:30-7:45	-	-	-	-	-	-	-	-	-	-
7:45-8:00	-	-	-	-	-	-	-	-	1	-
TOTAL	-	-	-	-	-	-	-	-	1/1	1/2
8:00-8:15	-	-	-	-	-	-	-	-	-	-
8:15-8:30	-	-	-	-	-	-	-	-	-	-
8:30-8:45	-	-	-	-	-	-	1	-	-	-
8:45-9:00	2	1	-	-	-	-	-	-	-	-
TOTAL	2	1	-	-	-	-	1	-	-	-
9:00-9:15	-	-	-	-	-	-	-	-	-	1
9:15-9:30	-	-	-	-	-	-	-	-	-	1
9:30-9:45	-	-	-	-	-	-	-	-	-	-
9:45-10:00	-	-	-	-	-	-	-	-	-	-
TOTAL	-	-	-	-	-	-	-	-	-	2



Time	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
10:00-10:15	-	-	-	-	-	-	-	-	-	-
10:15-10:30	-	-	-	-	-	-	-	-	-	-
10:30-10:45	-	-	-	-	-	-	-	-	-	-
10:45-11:00	1	-	-	-	-	-	-	-	-	2
TOTAL	1	-	-	-	-	-	-	-	-	2
11:00-11:15	1	-	-	-	-	-	-	-	-	2
11:15-11:30	-	-	-	-	-	-	-	-	-	1
11:30-11:45	1	-	-	-	-	-	-	-	-	-
11:45-12:00	-	-	-	-	-	-	-	-	1/1	-
TOTAL	1/1	-	-	-	-	-	-	-	1/1	2/1
12:00-12:15	-	-	-	-	-	-	-	-	-	-
12:15-12:30	-	-	-	-	-	-	-	-	-	-
12:30-12:45	-	-	-	-	-	-	-	-	-	-
12:45-13:00	-	-	-	-	-	-	-	-	1	-
TOTAL	-	-	-	-	-	-	-	-	1	-



Time	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
13:00-13:15	-	-	-	-	-	-	-	-	-	2/1
13:15-13:30	-	-	-	-	-	-	-	-	-	-
13:30-13:45	1	-	-	-	-	-	-	-	-	-
13:45-14:00	1	-	-	-	-	-	-	-	-	-
TOTAL	2	-	-	-	-	-	-	-	-	2/1
14:00-14:15	-	-	-	-	-	-	-	-	-	-
14:15-14:30	-	-	-	-	-	-	-	-	1	-
14:30-14:45	-	-	-	-	-	-	-	1	2	-
14:45-15:00	1/1	-	-	-	-	-	-	-	-	-
TOTAL	1/1	-	-	-	-	-	-	1	3	-
15:00-15:15	-	1	-	-	-	-	-	-	-	-
15:15-15:30	1	-	-	-	-	-	-	-	-	-
15:30-15:45	-	-	-	-	-	-	-	-	-	-
15:45-16:00	2	-	-	-	-	-	-	-	-	-
TOTAL	1/2	1	-	-	-	-	-	-	-	-



Time	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
16:00-16:15	1	-	-	-	-	-	-	-	-	-
16:15-16:30	-	-	-	-	-	-	-	-	-	-
16:30-16:45	-	-	-	-	-	-	-	-	2	-
16:45-17:00	-	-	-	-	-	-	-	-	-	-
TOTAL	1	-	-	-	-	-	-	-	2	-
17:00-17:15	-	-	-	-	-	-	-	-	-	-
17:15-17:30	-	-	-	-	-	-	-	-	-	1
17:30-17:45	-	-	-	-	-	-	-	-	-	-
17:45-18:00	-	-	-	-	-	-	-	-	-	-
TOTAL	-	-	-	-	-	-	-	-	-	1
7-8 AM	0	0	0	0	0	0	0	0	5	0
8-9 AM	3	0	0	0	0	0	0	1	0	0
9-10 AM	0	0	0	0	0	0	0	0	2	0
10-11 AM	1	0	0	0	0	0	0	0	2	0
11-12 PM	2	0	0	0	0	0	0	0	5	0
12 - 1 PM	0	0	0	0	0	0	0	0	1	0
1-2 PM	2	0	0	0	0	0	0	1	2	0
2-3 PM	2	0	0	0	0	0	0	1	3	0
3-4 PM	4	0	0	0	0	0	0	0	0	0
4-5 PM	1	0	0	0	0	0	0	0	2	0
5-6 PM	0	0	0	0	0	0	0	0	1	0

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Time	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
7:00-7:15	1	-	-	-	2	-	-	-	-	-	-	-
7:15-7:30	-	-	-	-	1	-	-	-	-	-	1	-
7:30-7:45	-	-	-	-	2	-	-	-	-	1	-	1
7:45-8:00	-	1	-	-	1	-	-	1	-	-	2	-
	1	1	0	0	6	0	0	1	0	1	3	1
Hour Total	2		0		6		1		1		4	
8:00-8:15	1	1	-	-	6	-	-	-	1	-	1	1
8:15-8:30	1	-	-	-	1	-	2	1	-	1	-	-
8:30-8:45	-	-	-	-	2	-	-	-	2	1	1	-
8:45-9:00	-	-	-	-	-	-	-	-	-	2/1	1	-
	2	1	0	0	9	0	2	1	3	5	3	1
Hour Total	3		0		9		3		8		4	
9:00-9:15	-	-	-	-	1	-	-	1	-	1	-	2
9:15-9:30	-	-	-	-	1	-	-	-	-	-	-	-
9:30-9:45	-	-	-	-	3	-	1	1	1	1	-	-
9:45-10:00	-	-	-	-	-	2/1	-	-	-	1	-	1
	0	0	0	0	5	3	1	2	1	3	0	3
Hour Total	0		0		8		3		4		3	



Time	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
10:00-10:15	-	-	-	-	-	1	-	-	1	-	1	1
10:15-10:30	-	-	-	-	3	-	1	-	-	-	-	-
10:30-10:45	-	1	-	-	1	-	2	3/1	-	-	-	-
10:45-11:00	-	1	-	-	1	-	1	-	-	-	-	-
	0	2	0	0	5	1	4	4	1	0	1	1
Hour Total	2		0		6		8		1		2	
11:00-11:15	1	-	-	-	-	1/1	-	-	-	-	-	-
11:15-11:30	1	-	-	-	2	-	-	-	-	-	-	-
11:30-11:45	-	1	-	-	-	1	-	-	1	1	-	3
11:45-12:00	-	-	-	-	-	-	-	-	3	1/1	-	-
	2	1	0	0	2	3	0	0	4	3	0	3
Hour Total	3		0		5		0		7		3	
12:00-12:15	1	-	-	-	1/3	-	1	-	-	1	1	1
12:15-12:30	-	-	-	-	-	5	-	3	1	-	1	-
12:30-12:45	-	-	-	-	2	1	1	1	2	-	-	-
12:45-13:00	1	-	-	-	1	-	-	2	-	1	-	2
	2	0	0	0	7	6	2	6	3	2	2	3
Hour Total	2		0		13		8		5		5	



Time	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
13:00-13:15	-	-	-	-	3	-	2	-	-	-	-	-
13:15-13:30	-	-	-	-	2	-	2	1	-	2	-	-
13:30-13:45	1	-	-	-	1	1	1	-	1	1	1/1	-
13:45-14:00	2	-	-	-	1	-	1/1	-	1	2/1	-	-
	3	0	0	0	7	1	5	1	2	6	2	0
Hour Total	3		0		8		6		8		2	
14:00-14:15	-	1	-	-	-	3	-	-	2	1	-	2
14:15-14:30	-	-	-	-	4	1	-	-	-	2	1	1
14:30-14:45	1	-	-	-	1	2	1	-	-	2	1/1	1
14:45-15:00	-	-	-	-	-	1	-	1/1	-	-	-	-
	1	1	0	0	5	7	1	2	2	5	3	4
Hour Total	2		0		12		3		7		7	
15:00-15:15	-	1	-	-	2	1	1	-	-	-	-	-
15:15-15:30	1	-	-	-	1	1	-	-	-	-	1	-
15:30-15:45	1	-	-	-	-	1/1	3	1	1/1	-	1	-
15:45-16:00	1	1	-	-	1	1	1	-	1	-	1	1
	3	2	0	0	4	5	5	1	3	0	3	1
Hour Total	5		0		9		6		3		4	



Time	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
16:00-16:15	1	2	-	-	1	-	2	-	-	-	-	1
16:15-16:30	1	-	-	-	-	-	2	-	-	1	2	-
16:30-16:45	-	-	-	-	1	-	1	-	-	1	-	1
16:45-17:00	1	-	-	-	2/1	-	-	-	1	-	-	-
	3	2	0	0	5	0	5	0	1	2	2	2
Hour Total	5		0		5		5		3		4	
17:00-17:15	1	-	-	-	2/1	1	-	-	-	-	-	-
17:15-17:30	-	-	-	-	3/1	1	1	-	-	1/1	1	1
17:30-17:45	1/2	1	-	-	-	1/1	2	2/1	2	1	3	-
17:45-18:00	-	1	-	-	1	-	-	-	-	2	-	-
	4	2	0	0	8	4	3	3	2	5	4	1
Hour Total	6		0		12		6		7		5	
7-8 AM	2		0		6		1		1		4	
8-9 AM	3		0		9		3		8		4	

9-10 AM	0	0	8	3	4	3
10-11 AM	2	0	6	8	1	2
11-12 PM	3	0	5	0	7	3
12 - 1 PM	2	0	13	8	5	5
1-2 PM	3	0	8	6	8	2
2-3 PM	2	0	12	3	7	7
3-4 PM	5	0	9	6	3	4
4-5 PM	5	0	5	5	3	4
5-6 PM	6	0	12	6	7	5



Time	EB		WB		EB		WB		EB		WB		EB		WB	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
7:00-7:15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7:15-7:30	-	-	-	-	1	3	-	-	-	-	-	-	1	-	-	-
7:30-7:45	-	-	1	-	-	1	-	-	-	-	-	1	-	2	-	-
7:45-8:00	-	-	1	-	2	1	1	-	-	-	-	-	-	1	-	-
	0	0	2	0	3	5	1	0	0	0	0	1	1	3	0	0
Hour Total	0		2		8		1		0		1		4		0	
8:00-8:15	2	-	-	2	-	-	1	-	-	-	-	-	1	-	-	-
8:15-8:30	-	-	-	-	-	2	-	1	-	-	-	-	1	1	-	-
8:30-8:45	1	-	-	-	1/1	2	1/1	-	-	3/1	-	-	1	1	-	-
8:45-9:00	-	1	1	1	-	2	-	-	-	-	-	-	-	-	1	-
	3	1	1	3	2	6	3	1	0	4	0	0	3	2	1	0
Hour Total	4		4		8		4		4		0		5		1	
9:00-9:15	-	-	1	-	1	2	1	3	-	-	-	2	2	-	1	-
9:15-9:30	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-
9:30-9:45	-	-	-	-	1/1	1	1	1	-	-	-	-	1	1	1	-
9:45-10:00	-	-	-	-	-	-	-	1	-	1	-	1/1	-	-	-	-
	0	0	1	0	3	3	2	6	0	1	0	4	3	1	2	0
Hour Total	0		1		6		8		1		4		4		2	



Time	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
10:00-10:15	-	-	-	-	1	-	2	1	-	-	-	-	-	1	-	1
10:15-10:30	-	-	-	-	2/2	1	-	1	1	-	2	1/1	-	-	-	-
10:30-10:45	-	-	-	-	2/1	-	2	-	-	-	-	-	1	-	-	-
10:45-11:00	-	-	-	-	1	-	2	-	1	2	-	-	1	-	-	-
	0	0	0	0	8	1	6	2	2	2	2	2	2	1	0	1
Hour Total	0		0		9		8		4		4		3		1	
11:00-11:15	-	-	-	1	-	-	-	2	-	-	-	-	-	-	-	-
11:15-11:30	-	-	-	-	-	-	1	1	-	-	-	-	1	-	-	-
11:30-11:45	-	-	-	-	-	-	-	1	-	-	-	5	-	-	-	-
11:45-12:00	-	-	-	-	1	-	-	-	-	-	-	-	3	1/1	-	-
	0	0	0	1	1	0	1	4	0	0	0	5	4	2	0	0
Hour Total	0		1		1		5		0		5		6		0	
12:00-12:15	-	-	-	-	-	1	-	-	2	-	-	-	1	1	1/1	-
12:15-12:30	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
12:30-12:45	-	-	-	-	-	-	1	1	-	-	1	-	1	-	-	-
12:45-13:00	-	-	-	-	-	-	-	-	-	-	-	2	-	1	-	-
	0	0	0	0	0	1	1	1	3	0	1	2	2	2	2	0
Hour Total	0		0		1		2		3		3		4		2	



Time	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
13:00-13:15	-	-	-	-	1	-	1	1	-	1	2	2	-	-	-	-
13:15-13:30	-	-	-	-	-	-	-	-	2	-	1	-	-	-	1	-
13:30-13:45	-	-	-	-	1	1	-	-	-	-	1	-	1	-	-	-
13:45-14:00	-	-	-	-	-	-	-	-	-	1	1	-	1	-	-	-
	0	0	0	0	2	1	1	1	2	2	5	2	2	0	1	0
Hour Total	0		0		3		2		4		7		2		1	
14:00-14:15	-	-	-	-	1	1	1	-	-	-	2	-	-	-	-	-
14:15-14:30	-	-	-	1	-	2	-	-	-	-	2	-	-	-	-	-
14:30-14:45	-	-	1	-	-	1	3	1	-	-	-	2	-	-	-	-
14:45-15:00	-	-	1	-	-	-	-	1	-	-	1	-	-	1	-	-
	0	0	2	1	1	4	4	2	0	0	5	2	0	1	0	0
Hour Total	0		3		5		6		0		7		1		0	
15:00-15:15	-	-	-	-	1	2	3/1	1	-	-	-	-	-	-	-	-
15:15-15:30	-	-	1	-	2	-	-	1	1	-	-	-	2	-	-	-
15:30-15:45	-	-	1	-	1/1	1	-	1	-	-	1/1	-	-	-	3	1
15:45-16:00	-	-	1	-	1	1	-	-	-	-	1	-	1	-	-	-
	0	0	3	0	6	4	4	3	1	0	3	0	3	0	3	1
Hour Total	0		3		10		7		1		3		3		4	

7-8 AM	0	2	8	1	0	1	4	0	
8-9 AM	4	4	8	4	4	0	5	1	
9-10 AM	0	1	6	8	1	4	4	2	
10-11 AM	0	0	9	8	4	4	3	1	
11-12 PM	0	1	1	5	0	5	6	0	
12 - 1 PM	0	0	1	2	3	3	4	2	
1-2 PM	0	0	3	2	4	7	2	1	
2-3 PM	0	3	5	6	0	7	1	0	
3-4 PM	0	3	10	7	1	3	3	4	
4-5 PM	0	6	11	5	1	7	1	0	
5-6 PM	0	0	5	11	4	4	1	0	



Time	EB	WB	EB	WB	EB	WB	EB	WB
7:00-7:15	-	-	-	-	2	-	-	-
7:15-7:30	-	-	3	2	-	-	1	3
7:30-7:45	-	-	5	1	-	-	-	-
7:45-8:00	-	-	4	1	-	-	-	-
	0	0	12	4	2	0	1	3
Hour Total	0		16		2		4	
8:00-8:15	-	-	1	3	1	-	-	2
8:15-8:30	8	2	1	-	-	2	-	-
8:30-8:45	4	-	-	-	-	-	-	-
8:45-9:00	3/1	4	-	-	1	-	-	2
	16	6	2	3	2	2	0	4
Hour Total	22		5		4		4	
9:00-9:15	2/3	3/1	-	-	1	-	-	1
9:15-9:30	1/2	1	-	-	-	-	-	-
9:30-9:45	3	1	1	-	-	-	1	1
9:45-10:00	3/1	2	-	1	-	-	-	-
	15	8	1	1	1	0	1	2
Hour Total	23		2		1		3	



Time	EB	WB	EB	WB	EB	WB	EB	WB
10:00-10:15	1/1	2	-	-	-	-	-	1
10:15-10:30	2	1	-	-	2	-	-	1
10:30-10:45	5/4	2	-	-	-	-	1	-
10:45-11:00	1	-	-	-	-	-	-	-
	14	5	0	0	2	0	1	2
Hour Total	19		0		2		3	
11:00-11:15	2	1	-	-	-	-	-	-
11:15-11:30	4	1	-	-	-	-	-	-
11:30-11:45	5	3/1	1	-	-	1	-	-
11:45-12:00	-	3/1	-	-	1	-	3	-
	11	10	1	0	1	1	3	0
Hour Total	21		1		2		3	
12:00-12:15	-	-	-	-	-	-	1	-
12:15-12:30	2	3/1	-	-	1	-	-	1
12:30-12:45	2/1	2/1	-	-	-	-	3	-
12:45-13:00	2	2	-	-	-	-	-	-
	7	9	0	0	1	0	4	1
Hour Total	16		0		1		5	



Time	EB	WB	EB	WB	EB	WB	EB	WB
13:00-13:15	1/1	2/2	-	-	-	-	1	-
13:15-13:30	2	-	-	1	-	-	-	-
13:30-13:45	1	1/1	-	-	-	-	1	-
13:45-14:00	3	2/2	-	-	-	-	-	-
	8	10	0	1	0	0	2	0
Hour Total	18		1		0		2	
14:00-14:15	2/2	1/2	-	-	1	-	-	2
14:15-14:30	2	2	-	-	-	-	1	-
14:30-14:45	2/1	2/1	-	-	-	-	-	3
14:45-15:00	3/2	2	1	-	-	-	1/1	-
	14	10	1	0	1	0	3	5
Hour Total	24		1		1		8	
15:00-15:15	3/1	1/2	-	-	-	-	-	-
15:15-15:30	2	2	-	-	-	-	2	1
15:30-15:45	2/1	1	-	-	1	-	-	-
15:45-16:00	1	-	1	-	-	-	1	3
	10	6	1	0	1	0	3	4
Hour Total	16		1		1		7	



Time	EB	WB	EB	WB	EB	WB	EB	WB
16:00-16:15	5/2	1	-	-	-	-	-	1
16:15-16:30	4	4/2	1	1	-	-	2	3
16:30-16:45	6	1/3	2	-	2	-	-	1
16:45-17:00	3/4	1	-	1	-	-	2	-
	24	12	3	2	2	0	4	5
Hour Total	36		5		2		9	
17:00-17:15	2/3	1	-	-	-	-	3	-
17:15-17:30	2/1	1/4	-	-	-	-	2	1
17:30-17:45	4	8/3	-	-	-	-	1	1/1
17:45-18:00	2/2	1	-	-	-	-	-	-
	16	18	0	0	0	0	6	3
Hour Total	34		0		0		9	
7-8 AM	0		16		2		4	
8-9 AM	22		5		4		4	
9-10 AM	23		2		1		3	
10-11 AM	19		0		2		3	
11-12 PM	21		1		2		3	
12 - 1 PM	16		0		1		5	
1-2 PM	18		1		0		2	
2-3 PM	24		1		1		8	
3-4 PM	16		1		1		7	
4-5 PM	36		5		2		9	
5-6 PM	34		0		0		9	



Time	EB	WB	EB	WB	EB	WB	EB	WB
7:00-7:15	-	-	-	-	-	-	-	-
7:15-7:30	4	4	-	-	-	-	-	-
7:30-7:45	-	-	-	-	-	-	-	-
7:45-8:00	4	5	-	-	-	-	-	-
	8	9	0	0	0	0	0	0
Hour Total	17		0		0		0	
8:00-8:15	6	7	-	-	-	-	-	-
8:15-8:30	7	3	-	-	-	-	-	-
8:30-8:45	3	2/1	-	-	-	-	-	-
8:45-9:00	3	2	-	-	-	-	-	-
	19	15	0	0	0	0	0	0
Hour Total	34		0		0		0	
9:00-9:15	4/1	4/1	-	-	-	-	-	-
9:15-9:30	1	-	-	-	-	-	-	-
9:30-9:45	2	1	-	-	-	-	-	-
9:45-10:00	-	2/1	-	-	-	-	-	-
	8	9	0	0	0	0	0	0
Hour Total	17		0		0		0	



Time	EB	WB	EB	WB	EB	WB	EB	WB
10:00-10:15	5	4	-	-	-	-	-	-
10:15-10:30	4/1	5	-	-	-	-	-	-
10:30-10:45	2	6	-	-	-	-	-	-
10:45-11:00	1	2	-	-	-	-	-	-
	13	17	0	0	0	0	0	0
Hour Total	30		0		0		0	
11:00-11:15	1	3	-	-	-	-	-	-
11:15-11:30	2/1	1	-	-	-	-	-	-
11:30-11:45	2	4	-	-	-	-	-	-
11:45-12:00	6	1/1	-	-	-	-	-	-
	21	10	0	0	0	0	0	0
Hour Total	31		0		0		0	
12:00-12:15	4	2	-	-	-	-	-	-
12:15-12:30	3	1/1	-	-	-	-	-	-
12:30-12:45	2/1	4	-	-	-	-	-	-
12:45-13:00	2	2/1	-	-	-	-	-	-
	12	11	0	0	0	0	0	0
Hour Total	23		0		0		0	



Time	EB	WB	EB	WB	EB	WB	EB	WB
13:00-13:15	1	2	-	-	-	-	-	-
13:15-13:30	1	2/1	-	-	-	-	-	-
13:30-13:45	2/1	3/1	-	-	-	-	-	-
13:45-14:00	4	4/1	-	-	-	-	-	-
	6	2	0	0	0	0		
	8		0		0			
14:00-14:15	2	1	-	-	-	-	-	-
14:15-14:30	1	1	-	-	-	-	-	-
14:30-14:45	3	2	-	-	-	-	-	-
14:45-15:00	1/1	5	-	-	-	-	-	-
	6	9	0	0	0	0		
	15		0		0			
15:00-15:15	2	2/2	-	-	-	-	-	-
15:15-15:30	1	1	-	-	-	-	-	-
15:30-15:45	2	1	-	-	-	-	-	-
15:45-16:00	2	-	-	-	-	-	-	-
	7	2	0	0	0	0		
	9		0		0			



Time	EB	WB	EB	WB	EB	WB	EB	WB
16:00-16:15	2/1	2	-	-	-	-	-	-
16:15-16:30	3/2	1	-	-	-	-	-	-
16:30-16:45	3	1	-	-	-	-	-	-
16:45-17:00	3	1	-	-	-	-	-	-
	6	5	0	0	0	0	0	0
Hour Total	11		0		0		0	
17:00-17:15	2/1	-	-	-	-	-	-	-
17:15-17:30	3	-	-	-	-	-	-	-
17:30-17:45	1/1	4	-	-	-	-	-	-
17:45-18:00	2	1	-	-	-	-	-	-
	5	5	0	0	0	0	0	0
Hour Total	10		0		0		0	
7-8 AM	17		0		0		0	
8-9 AM	34		0		0		0	
9-10 AM	17		0		0		0	
10-11 AM	30		0		0		0	
11-12 PM	31							
12 - 1 PM	23							
1-2 PM	8							
2-3 PM	15							
3-4 PM	9							
4-5 PM	11							
5-6 PM	10							



Time	EB	WB	EB	WB	EB	WB	EB	WB
7:00-7:15	-	-	-	-	-	-	-	1
7:15-7:30	1	-	-	-	-	-	-	-
7:30-7:45	-	3	-	-	-	-	-	-
7:45-8:00	-	1	-	-	-	-	-	-
	1	4	0	0	0	0	0	1
Hour Total	5		0		0		1	
8:00-8:15	-	-	-	-	-	-	-	-
8:15-8:30	-	-	-	-	-	-	-	-
8:30-8:45	-	-	-	-	-	-	-	-
8:45-9:00	-	-	-	-	-	-	-	-
	0	0	0	0	0	0	0	0
Hour Total	0		0		0		0	
9:00-9:15	-	1	-	-	-	-	-	-
9:15-9:30	1	-	-	-	-	-	-	-
9:30-9:45	-	-	-	-	1	-	-	-
9:45-10:00	-	-	-	-	-	-	-	-
	1	1	0	0	1	0	0	0
Hour Total	2		0		1		0	



Time	EB	WB	EB	WB	EB	WB	EB	WB
10:00-10:15	1	-	-	-	-	-	-	-
10:15-10:30	-	-	-	-	-	-	-	-
10:30-10:45	-	2	-	-	-	1	-	-
10:45-11:00	-	2	-	-	-	-	-	-
	1	4	0	0	0	1	0	0
Hour Total	5		0		1		0	
11:00-11:15	-	-	-	-	1	-	-	-
11:15-11:30	-	-	-	-	1	-	-	-
11:30-11:45	-	-	-	-	-	-	-	-
11:45-12:00	1	-	-	-	-	-	-	-
	1	0	0	0	2	0	0	0
Hour Total	1		0		2		0	
12:00-12:15	-	-	-	-	-	1	-	-
12:15-12:30	-	-	-	-	-	-	-	-
12:30-12:45	-	-	-	-	-	-	-	-
12:45-13:00	-	-	-	-	-	-	1	-
	0	0	0	0	0	1	1	0
Hour Total	0		0		1		1	



Time	EB	WB	EB	WB	EB	WB	EB	WB
13:00-13:15	1	-	-	-	-	2	-	-
13:15-13:30	-	-	-	-	2	-	-	-
13:30-13:45	1	-	-	-	-	1	1	-
13:45-14:00	1	-	-	-	-	-	-	-
	3	0	0	0	2	3	1	0
Hour Total	3		0		5		1	
14:00-14:15	-	-	-	-	-	-	-	-
14:15-14:30	-	-	-	-	-	-	-	-
14:30-14:45	-	1	-	-	1	-	-	-
14:45-15:00	-	-	-	-	-	-	-	-
	0	1	0	0	1	0	0	0
Hour Total	1		0		1		0	
15:00-15:15	-	-	-	-	-	-	-	-
15:15-15:30	1	-	-	-	-	-	-	-
15:30-15:45	-	-	-	-	-	-	-	-
15:45-16:00	-	-	-	-	-	-	-	-
	1	0	0	0	0	0	0	0
Hour Total	1		0		0		0	

Time	EB	WB	EB	WB	EB	WB	EB	WB
16:00-16:15	-	-	-	-	1	-	-	-
16:15-16:30	-	-	-	-	-	-	-	-
16:30-16:45	-	-	-	-	-	-	-	-
16:45-17:00	-	-	-	-	1	-	-	-
	0	0	0	0	2	0	0	0
Hour Total	0		0		2		0	
17:00-17:15	-	-	1	1	-	-	-	-
17:15-17:30	-	-	-	-	-	-	-	-
17:30-17:45	-	-	-	-	-	-	-	-
17:45-18:00	-	-	-	-	-	-	-	-
	0	0	1	1	0	0	0	0
Hour Total	0		2		0		0	
7-8 AM	5		0		0		1	
8-9 AM	0		0		0		0	
9-10 AM	2		0		1		0	
10-11 AM	5		0		1		0	
11-12 PM	1		0		2		0	
12 - 1 PM	0		0		1		1	
1-2 PM	3		0		5		1	
2-3 PM	1		0		1		0	
3-4 PM	1		0		0		0	
4-5 PM	0		0		2		0	
5-6 PM	0		2		0		0	

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Time	EB	WB	EB	WB	EB	WB
7:00-7:15	-	-	-	-	6/3	-
7:15-7:30	-	-	1	-	1	-
7:30-7:45	-	-	-	-	4	3
7:45-8:00	-	-	-	-	6	-
	0	0	1	0	20	3
Hour Total	0		1		23	
8:00-8:15	-	-	-	-	1	-
8:15-8:30	-	-	-	-	3	-
8:30-8:45	-	-	-	-	1/2	-
8:45-9:00	-	-	-	-	13/2	1/2
	0	0	0	0	22	3
Hour Total	0		0		25	
9:00-9:15	-	-	3	1	1	-
9:15-9:30	1	1/1	1	-	3/2	-
9:30-9:45	-	-	-	-	-	1
9:45-10:00	-	-	-	-	-	3
	1	2	4	1	6	4
Hour Total	3		5		10	



Time	EB	WB	EB	WB	EB	WB
10:00-10:15	-	1	-	-	2	4
10:15-10:30	-	1	-	-	3/1	2
10:30-10:45	-	-	-	-	1/1	-
10:45-11:00	-	-	-	-	2	2/2
	0	2	0	0	10	10
Hour Total	2		0		20	
11:00-11:15	-	-	-	-	4	1
11:15-11:30	-	-	-	-	1	-
11:30-11:45	-	-	-	-	1	1
11:45-12:00	-	1	-	1	3/1	1
	0	1	0	1	10	3
Hour Total	1		1		13	
12:00-12:15	-	-	-	-	1/3	-
12:15-12:30	-	-	-	-	3	-
12:30-12:45	-	1	-	-	-	-
12:45-13:00	-	-	-	-	-	2
	0	1	0	0	7	2
Hour Total	1		0		9	



Time	EB	WB	EB	WB	EB	WB
13:00-13:15	-	2	-	-	1/1	3
13:15-13:30	-	2	-	-	-	3/2
13:30-13:45	-	-	-	-	-	1
13:45-14:00	-	-	-	-	-	-
	0	4	0	0	2	9
Hour Total	4		0		11	
14:00-14:15	-	-	-	-	-	1
14:15-14:30	1	-	-	-	1	1/4
14:30-14:45	-	-	1	-	5/1	-
14:45-15:00	-	-	-	1	1/1	3/1
	1	0	1	1	9	10
Hour Total	1		2		19	
15:00-15:15	-	-	-	-	1/2	1
15:15-15:30	-	-	-	-	3	-
15:30-15:45	-	-	-	-	-	-
15:45-16:00	-	-	-	-	1/2	-
	0	0	0	0	9	1
Hour Total	0		0		10	



Time	EB	WB	EB	WB	EB	WB
16:00-16:15	-	-	-	-	8/2	15/6
16:15-16:30	-	-	-	-	3/3	7/1
16:30-16:45	1	-	-	-	2/1	5
16:45-17:00	-	-	-	-	2/1	2
	1	0	0	0	22	36
Hour Total	1		0		58	
17:00-17:15	1	-	-	-	2	-
17:15-17:30	-	-	-	-	3	3
17:30-17:45	-	1	-	-	2/1	4/3
17:45-18:00	-	-	-	-	3/3	3
	1	1	0	0	14	13
Hour Total	2		0		27	
7-8 AM	0		1		23	
8-9 AM	0		0		25	
9-10 AM	3		5		10	
10-11 AM	2		0		20	
11-12 PM	1		1		13	
12 - 1 PM	1		0		9	
1-2 PM	4		0		11	
2-3 PM	1		2		19	
3-4 PM	0		0		10	
4-5 PM	1		0		58	
5-6 PM	2		0		27	



**Pedestrian/Bicyclist Counts
March 3 and 4, 2015**

Date: 03/03/2015
 Weather : Sunny
 Surveyor: Dave

US 41
Collier County



Time	NB		SB		NB		SB	
	P	B	P	B	P	B	P	B
7:00 AM-7:15 AM	-	1	-	-	-	-	-	1
7:15 AM-7:30 AM	-	2	-	1	-	1	1	1
7:30 AM-7:45 AM	-	1	-	-	-	1	-	-
7:45 AM-8:00 AM	1	-	-	1	-	2	-	-
TOTAL	1	4	0	2	0	4	1	2
8:00 AM-8:15 AM	-	-	-	-	-	1	-	1
8:15 AM-8:30 AM	-	-	-	-	1	-	1	1
8:30 AM-8:45 AM	-	-	-	-	-	1	-	-
8:45 AM-9:00 AM	-	-	1	-	-	1	-	2
TOTAL	0	0	1	0	1	3	1	4

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Time	NB		SB		NB		SB	
	P	B	P	B	P	B	P	B
9:00 AM-9:15 AM	-	-	-	-	-	-	-	-
9:15 AM-9:30 AM	1	-	-	-	2	-	3	1
9:30 AM-9:45 AM	-	-	-	-	-	2	1	2
9:45 AM-10:00 AM	-	-	1	-	-	-	-	3
TOTAL	1	0	1	0	2	2	4	6

Attachment: 2015 FDOT Pedestrian/Bicycle Safety Audit (4984 : Arterial Safety Study -



Time	NB		SB		NB		SB	
	P	B	P	B	P	B	P	B
11:00 AM-11:15 AM	-	1	-	-	2	3	1	1
11:15 AM-11:30 AM	-	1	3	-	3	-	-	1
11:30 AM-11:45 AM	-	-	-	-	-	-	1	2
11:45 AM-12:00 PM	-	-	-	-	1	-	1	-
TOTAL	0	2	3	0	6	3	3	4
12:00 PM-12:15 PM	1	-	1	-	-	2	-	1
12:15 PM-12:30 PM	-	-	-	-	1	1	2	1
12:30 PM-12:45 PM	-	-	-	-	-	1	-	1
12:45 PM-1:00 PM	-	-	-	-	1	1	-	-
TOTAL	1	0	1	0	2	5	2	3

Attachment: 2015 FDOT Pedestrian/Bicycle Safety Audit (4984 : Arterial Safety Study -



Time	NB		SB		NB		SB	
	P	B	P	B	P	B	P	B
3:00 AM-3:15 AM	2	1	-	-	1	-	-	1
3:15 AM-3:30 AM	-	-	-	-	1	-	-	1
3:30 AM-3:45 AM	-	-	-	-	3	-	1	1
3:45 AM-4:00 PM	-	-	2	-	-	-	1	1
TOTAL	2	1	2	0	5	0	2	4
4:00 PM-4:15 PM	-	-	-	-	-	1	-	-
4:15 PM-4:30 PM	-	-	-	-	-	1	2	-
4:30 PM-4:45 PM	1	-	-	-	-	-	-	-
4:45 PM-5:00 PM	-	-	1	-	1	-	-	1
TOTAL	1	0	1	0	1	2	2	1

Attachment: 2015 FDOT Pedestrian/Bicycle Safety Audit (4984 : Arterial Safety Study -



Time	NB		SB		NB		SB	
	P	B	P	B	P	B	P	B
5:00 PM-5:15 PM	-	-	-	-	1	1	-	1
5:15 PM-5:30 PM	-	2	-	-	1	-	-	2
5:30 PM-5:45 PM	-	-	-	-	1	-	-	1
5:45 PM-6:00 PM	1	1	-	-	-	-	3	-
TOTAL	1	3	0	0	3	1	3	4

Date: 03/04/2015

Weather : Sunny

Surveyor: Dave

**US 41
Collier County**

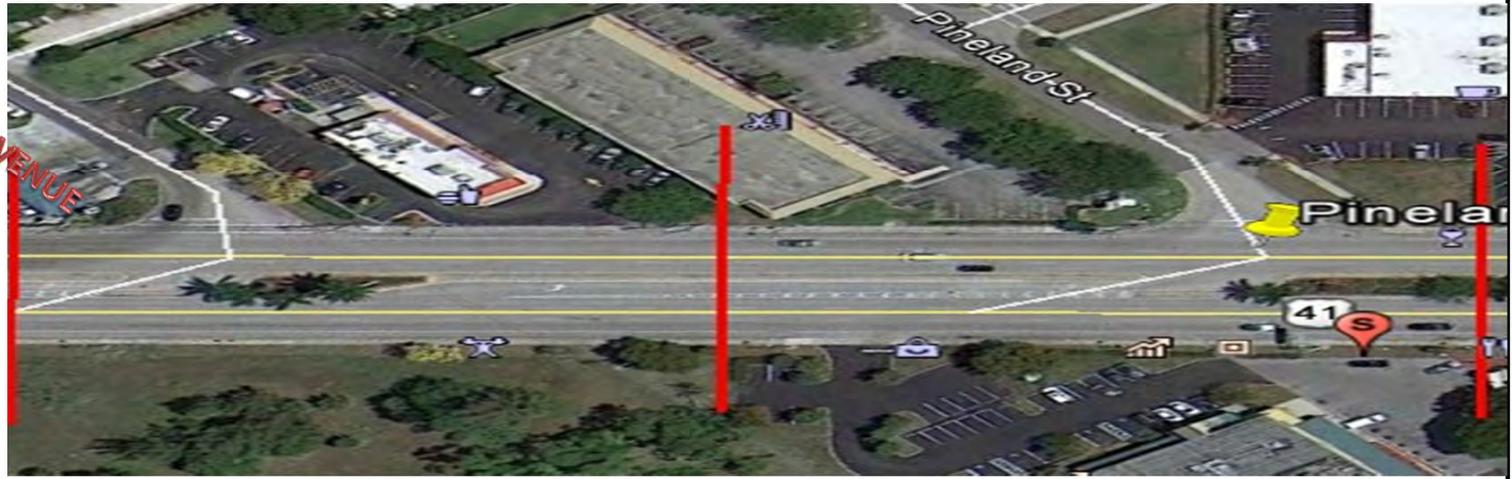
Section No:0301

11.C.2

M.P.13.612 - 13.693



PELTON AVENUE



Time	NB		SB		NB		SB	
	P	B	P	B	P	B	P	B
7:00 AM-7:15 AM	-		1	-	1	-	-	-
7:15 AM-7:30 AM	-	2	-	-	2	-	-	2
7:30 AM-7:45 AM	-	1	-	-	1	3	3	-
7:45 AM-8:00 AM	1	1	-	-	2	1	1	2
TOTAL	1	4	1	0	6	4	4	4
8:00 AM-8:15 AM		-	-	-	1	3	-	1
8:15 AM-8:30 AM	1	-	-	-	-	-	1	1
8:30 AM-8:45 AM	-	-	-	-	-	3	1	-
8:45 AM-9:00 AM	-	-	-	-	1	1	1	2
TOTAL	1	0	0	0	2	7	3	4

Attachment: 2015 FDOT Pedestrian/Bicycle Safety Audit (4984 : Arterial Safety Study -





Time	NB		SB		NB		SB	
	P	B	P	B	P	B	P	B
9:00 AM-9:15 AM	-	-	-	-	-	1	1	1
9:15 AM-9:30 AM	-	-	-	-	1	-	1	-
9:30 AM-9:45 AM	3	-	2	-	1	1	1	-
9:45 AM-10:00 AM	1	1	2	1	-	-	-	-
TOTAL	4	1	4	1	2	2	3	1

Attachment: 2015 FDOT Pedestrian/Bicycle Safety Audit (4984 : Arterial Safety Study -



Time	NB		SB		NB		SB	
	P	B	P	B	P	B	P	B
11:00 AM-11:15 AM	2	-	-	-	-	1	1	-
11:15 AM-11:30 AM	-	1	2	-	-	2	2	1
11:30 AM-11:45 AM	2	-	-	-	-	-	-	1
11:45 AM-12:00 PM	2	-	-	-	-	-	-	1
TOTAL	6	1	2	0	0	3	3	3
12:00 PM-12:15 PM	-	-	1	-	-	1	-	-
12:15 PM-12:30 PM	-	-	-	-	1	1	1	-
12:30 PM-12:45 PM	-	1	-	-	-	2	1	4
12:45 PM-1:00 PM	-	-	-	-	1	1	-	-
TOTAL	0	1	1	0	2	5	2	4

Attachment: 2015 FDOT Pedestrian/Bicycle Safety Audit (4984 : Arterial Safety Study -



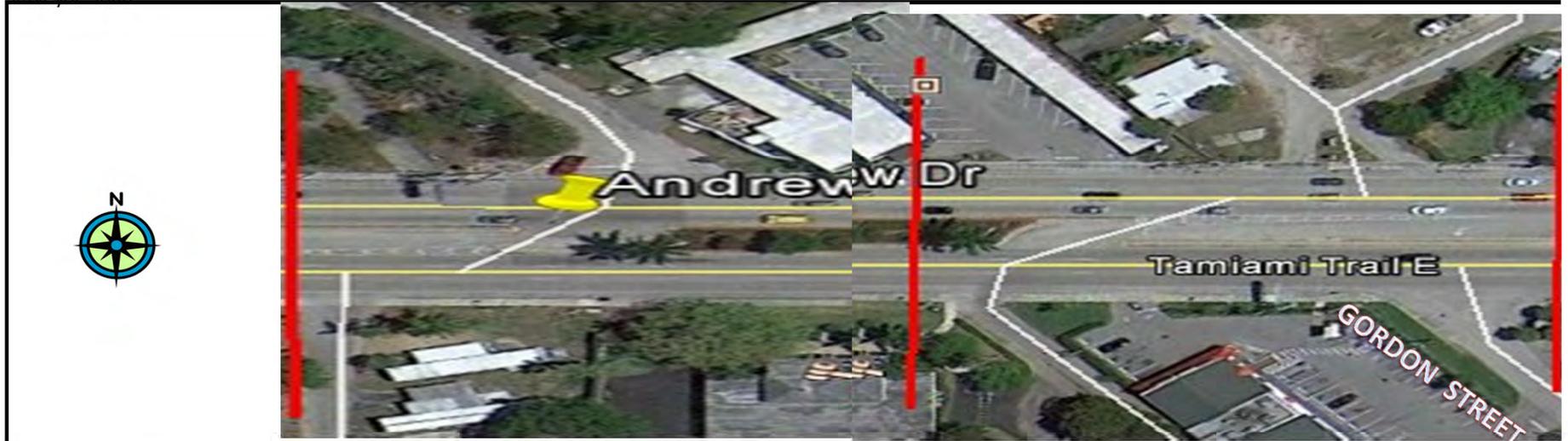
Time	NB		SB		NB		SB	
	P	B	P	B	P	B	P	B
3:00 AM-3:15 AM	-	-	-	-	1	1	-	2
3:15 AM-3:30 AM	-	1	-	-	-	1	-	-
3:30 AM-3:45 AM	6	-	-	-	-	-	1	1
3:45 AM-4:00 PM	-	-	-	1	-	-	-	-
TOTAL	6	1	0	1	1	2	1	3
4:00 PM-4:15 PM	-	-	2	1	-	-	-	2
4:15 PM-4:30 PM	-	-	-	-	1	-	-	-
4:30 PM-4:45 PM	3	-	-	-	1	1	-	-
4:45 PM-5:00 PM	-	-	-	-	-	-	-	1
TOTAL	3	0	2	1	2	1	0	3

Attachment: 2015 FDOT Pedestrian/Bicycle Safety Audit (4984 : Arterial Safety Study -



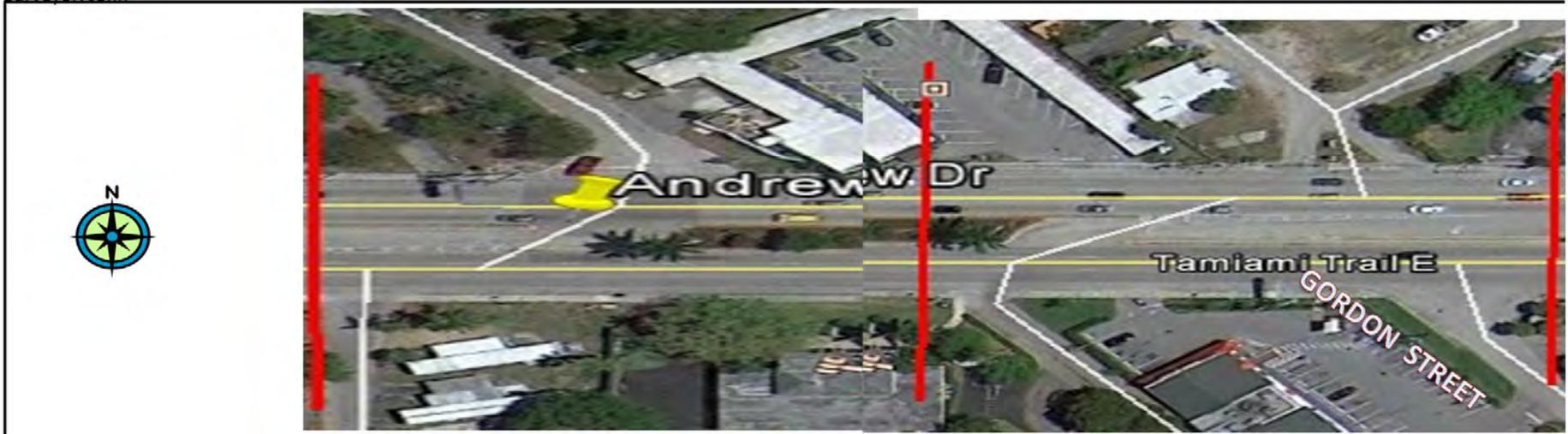
Time	NB		SB		NB		SB	
	P	B	P	B	P	B	P	B
5:00 PM-5:15 PM	-	-	1	1	-	-	-	2
5:15 PM-5:30 PM	-	-	-	-	1	-	-	-
5:30 PM-5:45 PM	-	-	-	-	-	1	-	1
5:45 PM-6:00 PM	-	-	1	-	-	2	-	6
TOTAL	0	0	2	1	1	3	0	9

Attachment: 2015 FDOT Pedestrian/Bicycle Safety Audit (4984 : Arterial Safety Study -

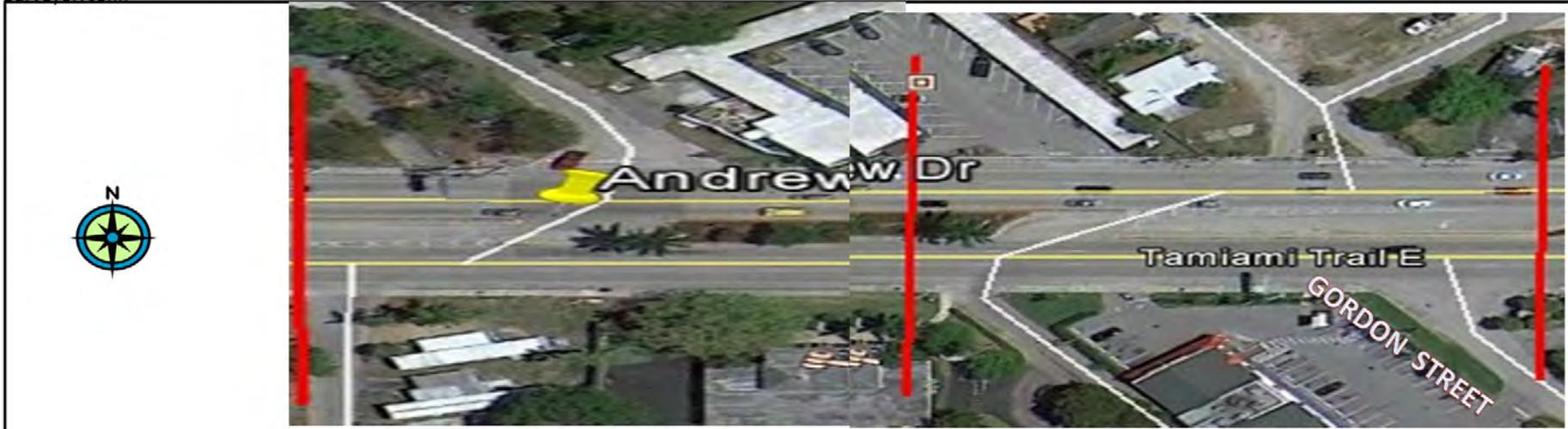


Time	NB		SB		NB		SB	
	P	B	P	B	P	B	P	B
7:00 AM-7:15 AM	-	-	1	-	-	-	-	1
7:15 AM-7:30 AM	-	-	-	-	2	1	-	-
7:30 AM-7:45 AM	1	2	-	-	-	-	1	-
7:45 AM-8:00 AM	-	-	-	-	1	-	-	-
TOTAL	1	2	1	0	3	1	1	1
8:00 AM-8:15 AM	-	1	-	-	-	-	2	1
8:15 AM-8:30 AM	-	1	1	1	-	1	1	-
8:30 AM-8:45 AM	-	3	-	-	-	-	-	-
8:45 AM-9:00 AM	-	1	-	1	-	-	1	2
TOTAL	0	6	1	2	0	1	4	3

Attachment: 2015 FDOT Pedestrian/Bicycle Safety Audit (4984 : Arterial Safety Study -

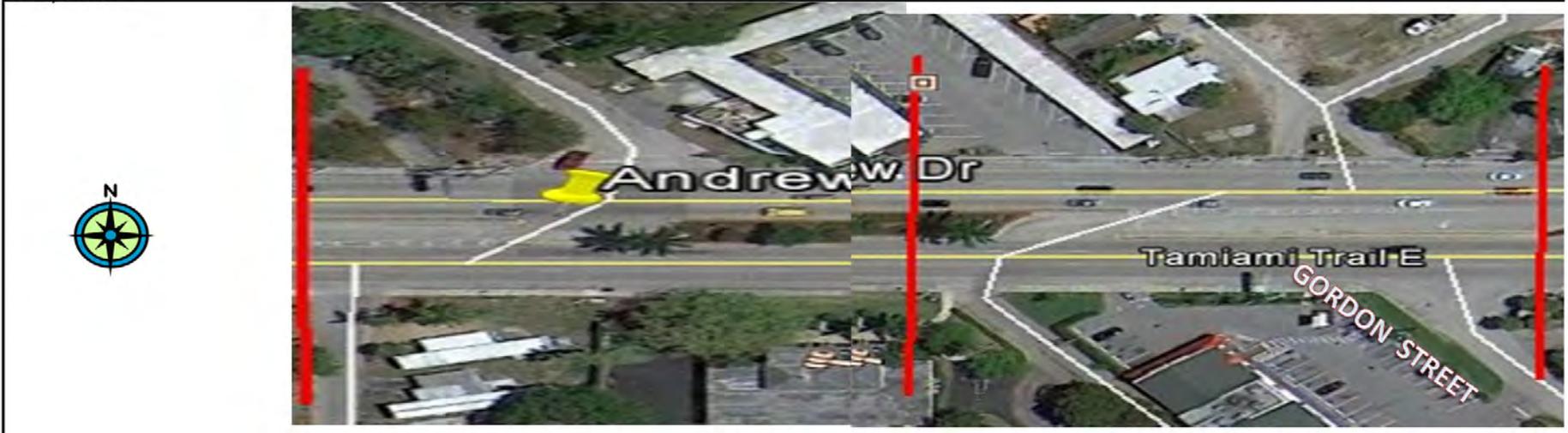


Time	NB		SB		NB		SB	
	P	B	P	B	P	B	P	B
9:00 AM-9:15 AM	1	-	-	-	-	-	-	-
9:15 AM-9:30 AM	-	-	-	1	-	-	1	-
9:30 AM-9:45 AM	-	-	-	-	-	-	-	1
9:45 AM-10:00 AM	1	-	-	-	1	-	-	-
TOTAL	2	0	0	1	1	0	1	1



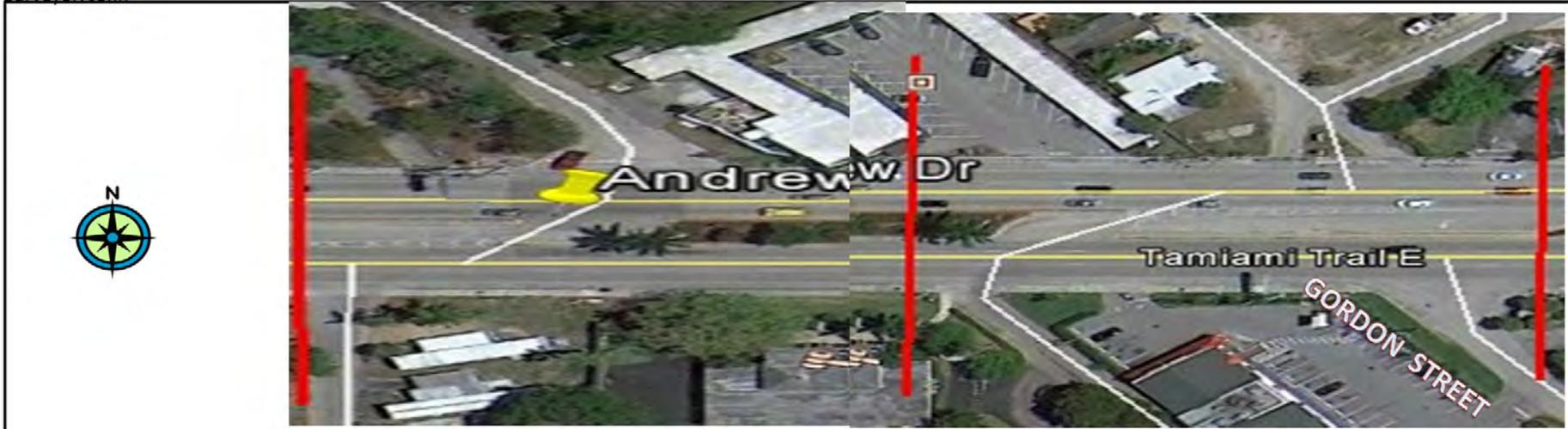
Time	NB		SB		NB		SB	
	P	B	P	B	P	B	P	B
11:00 AM-11:15 AM	-	-	-	1	1	-	-	1
11:15 AM-11:30 AM	1	-	-	-	-	-	-	-
11:30 AM-11:45 AM	-	-	-	1	-	-	2	-
11:45 AM-12:00 PM	1	2	-	-	-	-	-	1
TOTAL	2	2	0	2	1	0	2	2
12:00 PM-12:15 PM	1	1	-	-	-	-	-	2
12:15 PM-12:30 PM	-	-	2	1	-	-	-	1
12:30 PM-12:45 PM	1	1	-	-	-	-	-	1
12:45 PM-1:00 PM	-	-	-	-	-	-	-	1
TOTAL	2	2	2	1	0	0	0	5

Attachment: 2015 FDOT Pedestrian/Bicycle Safety Audit (4984 : Arterial Safety Study -



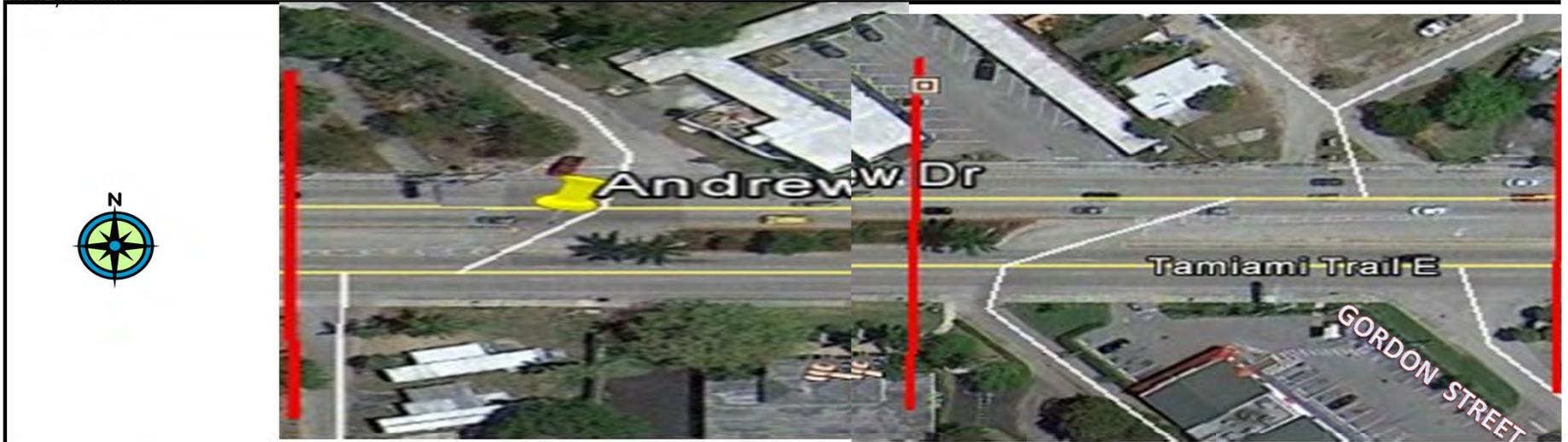
Time	NB		SB		NB		SB	
	P	B	P	B	P	B	P	B
3:00 AM-3:15 AM	-	-	-	-	-	-	-	2
3:15 AM-3:30 AM	-	-	-	-	-	-	1	1
3:30 AM-3:45 AM	3	1	-	-	-	-	-	-
3:45 AM-4:00 PM	1	-	2	1	-	-	-	2
TOTAL	4	1	2	1	0	0	1	5
4:00 PM-4:15 PM	1	1	-	-	-	-	-	1
4:15 PM-4:30 PM	-	-	-	-	1	-	-	-
4:30 PM-4:45 PM	1	-	2	-	1	-	1	1
4:45 PM-5:00 PM	2	2	-	-	-	-	2	-
TOTAL	4	3	2	0	2	0	3	2

Attachment: 2015 FDOT Pedestrian/Bicycle Safety Audit (4984 : Arterial Safety Study -



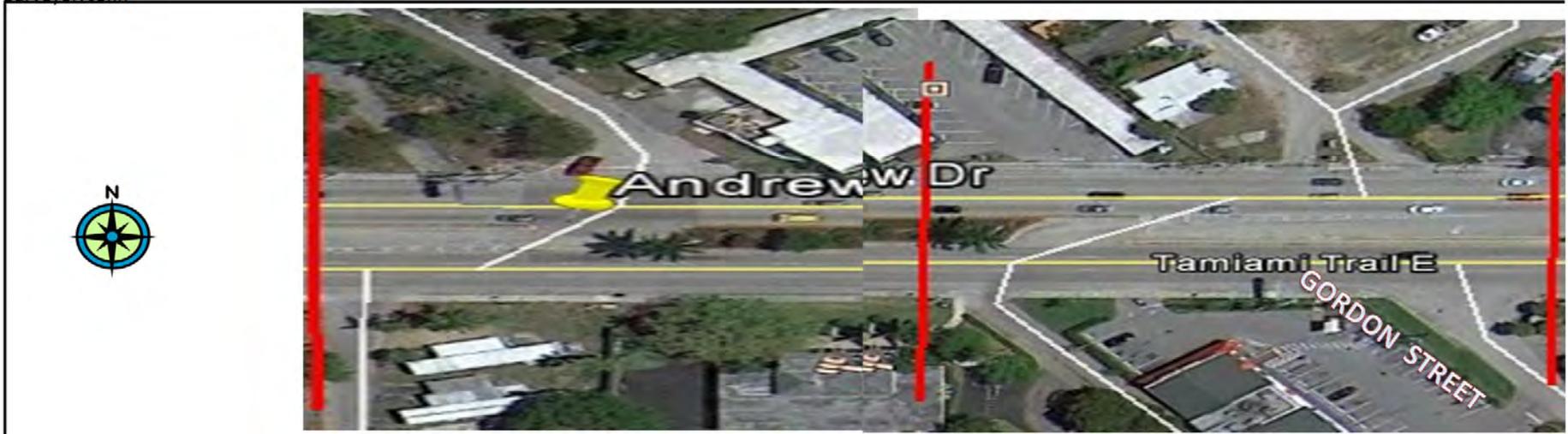
Time	NB		SB		NB		SB	
	P	B	P	B	P	B	P	B
5:00 PM-5:15 PM	-	1	-	-	-	-	-	-
5:15 PM-5:30 PM	1	-	-	-	-	-	-	2
5:30 PM-5:45 PM	1	-	-	-	-	-	4	4
5:45 PM-6:00 PM	-	3	-	-	2	-	-	2
TOTAL	2	4	0	0	2	0	4	8

Attachment: 2015 FDOT Pedestrian/Bicycle Safety Audit (4984 : Arterial Safety Study -

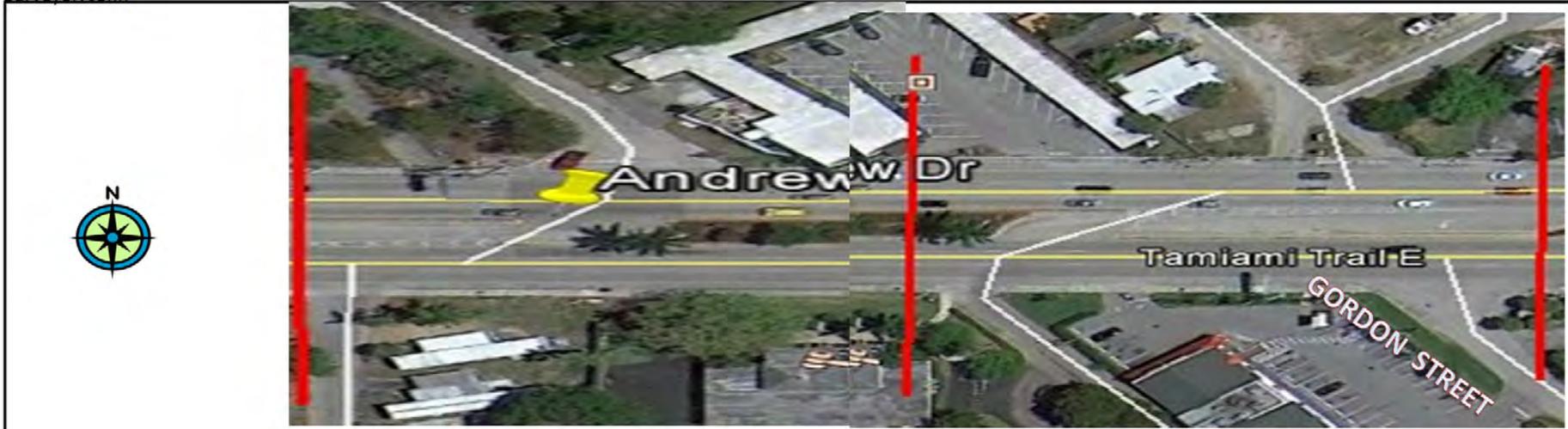


Time	NB		SB		NB		SB	
	P	B	P	B	P	B	P	B
7:00 AM-7:15 AM	-	-	-	-	-	-	-	2
7:15 AM-7:30 AM	-	1	-	-	-	-	-	-
7:30 AM-7:45 AM	1	-	-	-	-	-	-	-
7:45 AM-8:00 AM	1	-	-	-	1	1	3	1
TOTAL	2	1	0	0	1	1	3	3
8:00 AM-8:15 AM	1	2	-	-	-	1	-	-
8:15 AM-8:30 AM	1	-	1	-	-	1	-	-
8:30 AM-8:45 AM	1	-	-	-	-	-	-	1
8:45 AM-9:00 AM	3	1	1	-	-	-	1	1
TOTAL	6	3	2	0	0	2	1	2

Attachment: 2015 FDOT Pedestrian/Bicycle Safety Audit (4984 : Arterial Safety Study -

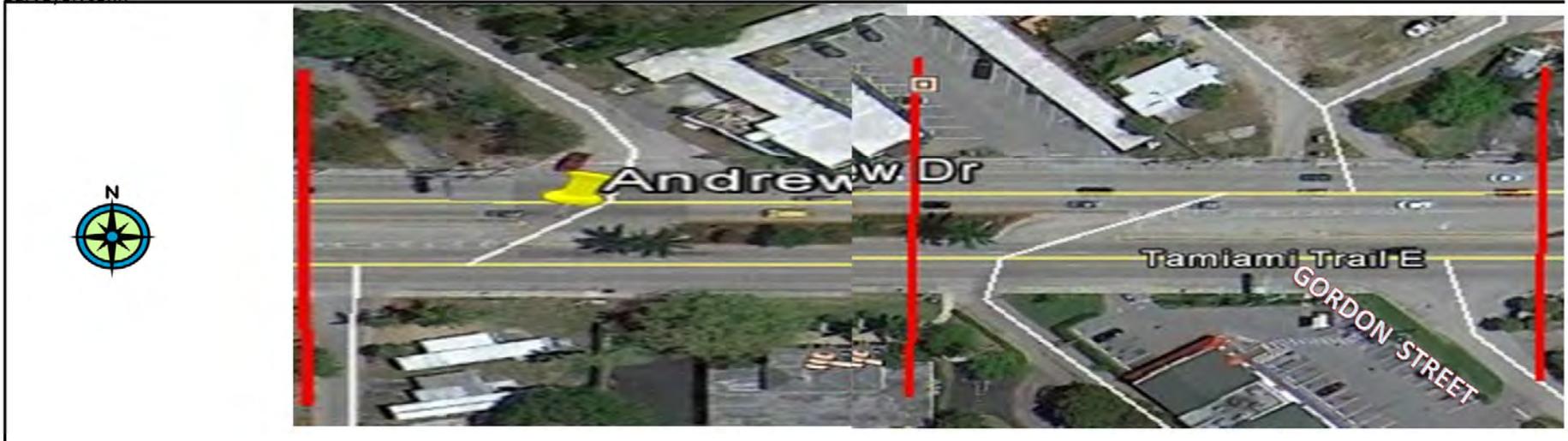


Time	NB		SB		NB		SB	
	P	B	P	B	P	B	P	B
9:00 AM-9:15 AM	-	-	-	1	-	-	-	-
9:15 AM-9:30 AM	2	-	-	-	-	-	-	3
9:30 AM-9:45 AM	-	1	-	-	-	-	-	-
9:45 AM-10:00 AM	-	1	-	1	1	-	-	-
TOTAL	2	2	0	2	1	0	0	3



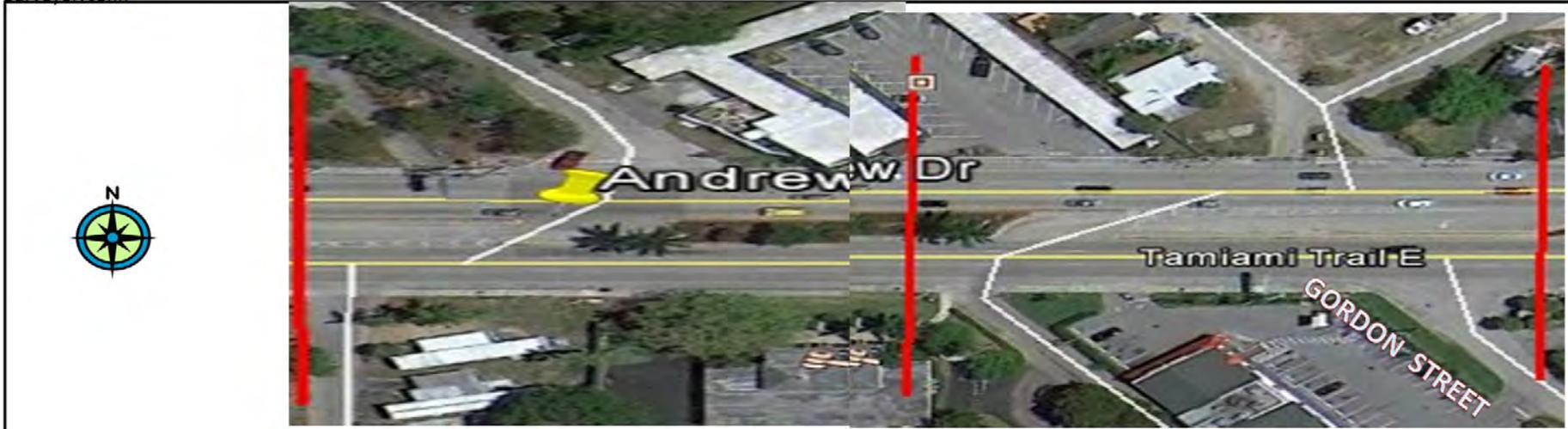
Time	NB		SB		NB		SB	
	P	B	P	B	P	B	P	B
11:00 AM-11:15 AM	-	-	-	-	-	-	2	-
11:15 AM-11:30 AM	1	-	-	1	-	-	-	1
11:30 AM-11:45 AM	-	-	2	-	-	-	-	3
11:45 AM-12:00 PM	-	1	-	2	-	-	-	1
TOTAL	1	1	2	3	0	0	2	5
12:00 PM-12:15 PM	2	-	-	-	-	-	-	-
12:15 PM-12:30 PM	-	1	-	1	-	-	-	1
12:30 PM-12:45 PM	-	-	-	-	2	-	-	-
12:45 PM-1:00 PM	-	-	-	-	-	-	-	-
TOTAL	2	1	0	1	2	0	0	1

Attachment: 2015 FDOT Pedestrian/Bicycle Safety Audit (4984 : Arterial Safety Study -



Time	NB		SB		NB		SB	
	P	B	P	B	P	B	P	B
3:00 AM-3:15 AM	3	3	-	-	1	-	-	-
3:15 AM-3:30 AM	2	1	-	-	1	-	-	-
3:30 AM-3:45 AM	-	-	-	-	-	-	1	-
3:45 AM-4:00 PM	1	-	-	1	-	-	-	2
TOTAL	6	4	0	1	2	0	1	2
4:00 PM-4:15 PM	-	1	-	-	-	-	-	2
4:15 PM-4:30 PM	1	-	2	-	1	-	-	-
4:30 PM-4:45 PM	1	3	-	1	-	-	2	-
4:45 PM-5:00 PM	-	1	-	1	4	-	1	-
TOTAL	2	5	2	2	5	0	3	2

Attachment: 2015 FDOT Pedestrian/Bicycle Safety Audit (4984 : Arterial Safety Study -



Time	NB		SB		NB		SB	
	P	B	P	B	P	B	P	B
5:00 PM-5:15 PM	1	-	-	-	1	-	-	2
5:15 PM-5:30 PM	6	2	1	-	-	-	-	1
5:30 PM-5:45 PM	6	3	-	-	-	-	2	3
5:45 PM-6:00 PM	-	2	-	-	2	1	4	1
TOTAL	13	7	1	0	3	1	6	7

Attachment: 2015 FDOT Pedestrian/Bicycle Safety Audit (4984 : Arterial Safety Study -



Time	NB		SB		NB		SB	
	P	B	P	B	P	B	P	B
7:00 AM-7:15 AM	-	-	-	-	-	-	-	1
7:15 AM-7:30 AM	-	1	-	-	-	-	-	-
7:30 AM-7:45 AM	-	-	-	-	-	-	-	-
7:45 AM-8:00 AM	-	-	-	-	-	-	-	-
TOTAL	0	1	0	0	0	0	0	1
8:00 AM-8:15 AM	-	-	-	1	-	-	-	-
8:15 AM-8:30 AM	-	-	-	-	-	-	-	-
8:30 AM-8:45 AM	-	-	-	-	-	-	-	-
8:45 AM-9:00 AM	-	-	-	-	-	-	-	-
TOTAL	0	0	0	1	0	0	0	0



Time	NB		SB		NB		SB	
	P	B	P	B	P	B	P	B
9:00 AM-9:15 AM	-	-	-	-	-	-	-	-
9:15 AM-9:30 AM	-	-	-	-	-	-	-	1
9:30 AM-9:45 AM	-	-	-	-	-	-	1	-
9:45 AM-10:00 AM	-	-	-	-	-	-	-	-
TOTAL	0	0	0	0	0	0	1	1



Time	NB		SB		NB		SB	
	P	B	P	B	P	B	P	B
11:00 AM-11:15 AM	-	-	-	-	-	-	-	-
11:15 AM-11:30 AM	-	-	-	-	-	-	-	-
11:30 AM-11:45 AM	-	-	-	1	-	-	-	-
11:45 AM-12:00 PM	-	-	-	-	-	-	-	-
TOTAL	0	0	0	1	0	0	0	0
12:00 PM-12:15 PM	-	-	-	-	-	-	-	-
12:15 PM-12:30 PM	-	-	1	-	1	-	-	-
12:30 PM-12:45 PM	-	-	-	-	-	-	-	-
12:45 PM-1:00 PM	-	-	-	-	-	1	1	-
TOTAL	0	0	1	0	1	1	1	0

Attachment: 2015 FDOT Pedestrian/Bicycle Safety Audit (4984 : Arterial Safety Study -

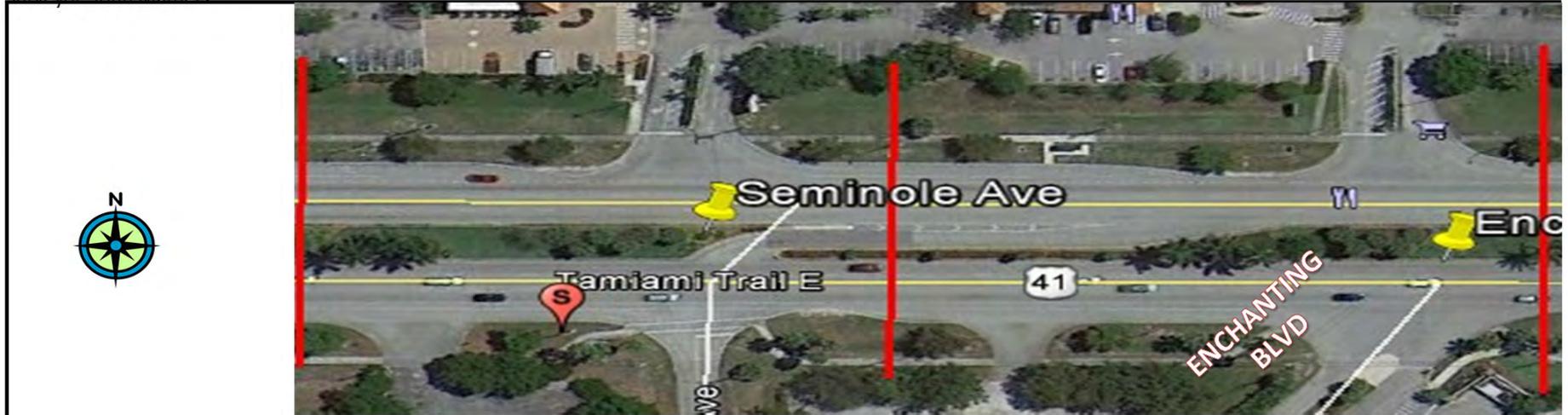


Time	NB		SB		NB		SB	
	P	B	P	B	P	B	P	B
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3:15 AM-3:30 AM	1	-	-	-	1	1	-	1
3:30 AM-3:45 AM	1	-	-	-	-	-	-	-
3:45 AM-4:00 PM	-	-	-	-	-	-	-	-
TOTAL	2	0	0	0	1	2	0	1
4:00 PM-4:15 PM	1	1	-	-	-	-	-	1
4:15 PM-4:30 PM	-	-	2	-	-	-	-	-
4:30 PM-4:45 PM	-	-	-	-	-	-	-	-
4:45 PM-5:00 PM	1	-	-	-	-	-	-	-
TOTAL	2	1	2	0	0	0	0	1

Attachment: 2015 FDOT Pedestrian/Bicycle Safety Audit (4984 : Arterial Safety Study -

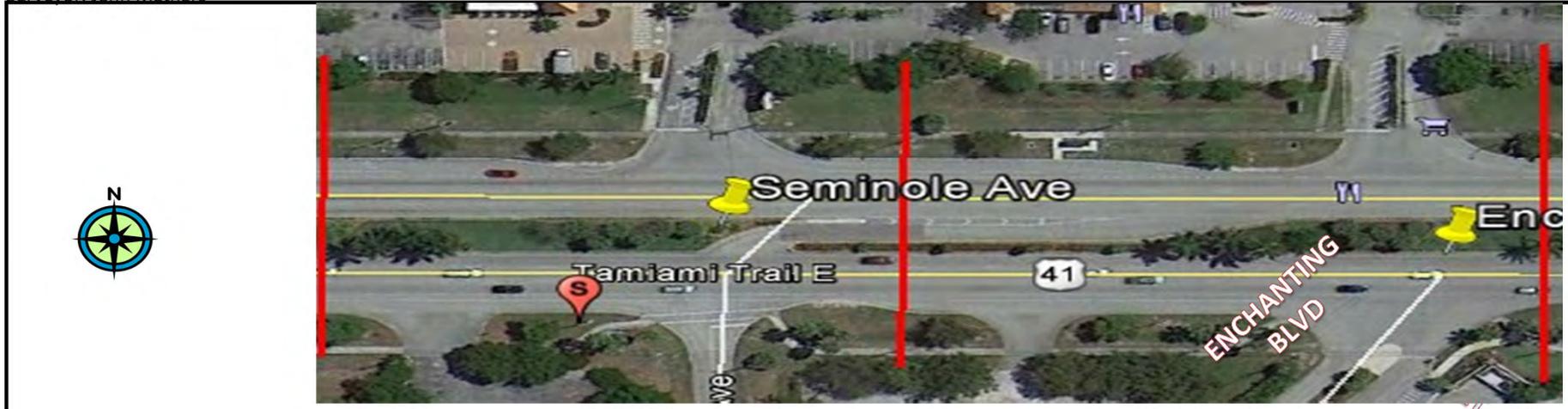


Time	NB		SB		NB		SB	
	P	B	P	B	P	B	P	B
5:00 PM-5:15 PM	-	-	1	-	-	-	-	-
5:15 PM-5:30 PM	-	-	-	-	-	-	-	-
5:30 PM-5:45 PM	-	-	-	-	-	-	-	-
5:45 PM-6:00 PM	-	-	-	-	-	-	-	-
TOTAL	0	0	1	0	0	0	0	0



Time	NB		SB		NB		SB	
	P	B	P	B	P	B	P	B
7:00 AM-7:15 AM	-	-	-	-	-	-	-	-
7:15 AM-7:30 AM	-	-	-	-	-	-	-	-
7:30 AM-7:45 AM	-	-	-	1	-	-	-	-
7:45 AM-8:00 AM	-	1	-	-	-	-	-	-
TOTAL	0	1	0	1	0	0	0	0
8:00 AM-8:15 AM	-	-	-	-	-	-	-	-
8:15 AM-8:30 AM	-	-	-	-	-	-	-	-
8:30 AM-8:45 AM	-	-	-	-	-	-	-	-
8:45 AM-9:00 AM	-	-	-	-	-	-	-	-
TOTAL	0							

Attachment: 2015 FDOT Pedestrian/Bicycle Safety Audit (4984 : Arterial Safety Study -



Time	NB		SB		NB		SB	
	P	B	P	B	P	B	P	B
9:00 AM-9:15 AM	-	-	-	-	-	-	-	-
9:15 AM-9:30 AM	-	-	-	-	-	-	-	-
9:30 AM-9:45 AM	-	-	-	-	-	-	1	-
9:45 AM-10:00 AM	-	-	-	-	-	-	-	-
TOTAL	0	0	0	0	0	0	1	0



Time	NB		SB		NB		SB	
	P	B	P	B	P	B	P	B
11:00 AM-11:15 AM	1	-	-	-	-	-	-	-
11:15 AM-11:30 AM	-	1	-	1	-	-	-	-
11:30 AM-11:45 AM	-	-	-	-	-	-	-	-
11:45 AM-12:00 PM	1	-	-	-	-	-	-	-
TOTAL	2	1	0	1	0	0	0	0
12:00 PM-12:15 PM	1	-	-	-	1	-	-	-
12:15 PM-12:30 PM	-	-	-	-	-	-	-	-
12:30 PM-12:45 PM	-	-	-	-	-	-	-	-
12:45 PM-1:00 PM	-	-	-	-	-	-	-	-
TOTAL	1	0	0	0	1	0	0	0

Attachment: 2015 FDOT Pedestrian/Bicycle Safety Audit (4984 : Arterial Safety Study -



Time	NB		SB		NB		SB	
	P	B	P	B	P	B	P	B
3:00 AM-3:15 AM	-	-	-	-	-	-	-	-
3:15 AM-3:30 AM	-	-	-	-	-	-	-	-
3:30 AM-3:45 AM	-	-	-	-	-	-	-	-
3:45 AM-4:00 PM	-	-	-	-	-	-	-	-
TOTAL	0							
4:00 PM-4:15 PM	-	-	-	1	-	-	1	-
4:15 PM-4:30 PM	-	-	-	-	-	-	-	-
4:30 PM-4:45 PM	-	-	-	-	-	-	-	-
4:45 PM-5:00 PM	-	-	-	-	-	-	-	-
TOTAL	0	0	0	1	0	0	1	0

Attachment: 2015 FDOT Pedestrian/Bicycle Safety Audit (4984 : Arterial Safety Study -



Time	NB		SB		NB		SB	
	P	B	P	B	P	B	P	B
5:00 PM-5:15 PM	-	-	-	-	-	-	-	-
5:15 PM-5:30 PM	-	1	-	-	-	-	-	-
5:30 PM-5:45 PM	-	-	-	-	-	-	-	-
5:45 PM-6:00 PM	-	-	-	-	-	1	-	-
TOTAL	0	1	0	0	0	1	0	0

Attachment: 2015 FDOT Pedestrian/Bicycle Safety Audit (4984 : Arterial Safety Study -

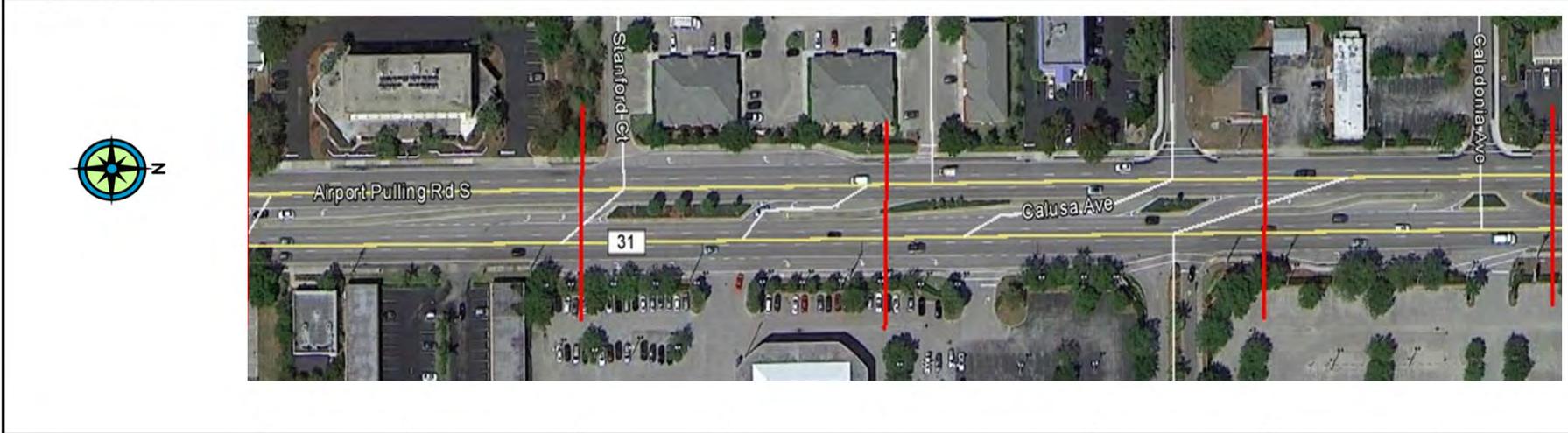
**Airport Pulling Road
 Collier County**



Time	EB		WB													
	P	B	P	B	P	B	P	B	P	B	P	B	P	B	P	B
7:00 AM-7:15 AM	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
7:15 AM-7:30 AM	1	-	1	-	-	-	-	-	-	-	-	-	1	-	-	3
7:30 AM-7:45 AM	-	-	1	1	-	-	-	1	5	-	-	-	-	-	-	3
7:45 AM-8:00 AM	1	-	1	-	-	-	-	-	1	-	1	-	-	2	-	1
TOTAL	2	0	3	2	0	0	0	1	6	0	1	0	1	2	0	7
8:00 AM-8:15 AM	1	-	1	-	-	-	1	1	8	-	1	-	1	-	1	1
8:15 AM-8:30 AM	-	-	3	1	-	-	-	-	1	1	-	-	-	-	3	1
8:30 AM-8:45 AM	2	-	-	-	1	-	-	-	-	1	-	1	1	-	1	1
8:45 AM-9:00 AM	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	2
TOTAL	3	0	6	1	1	0	1	1	9	2	1	1	2	0	5	5

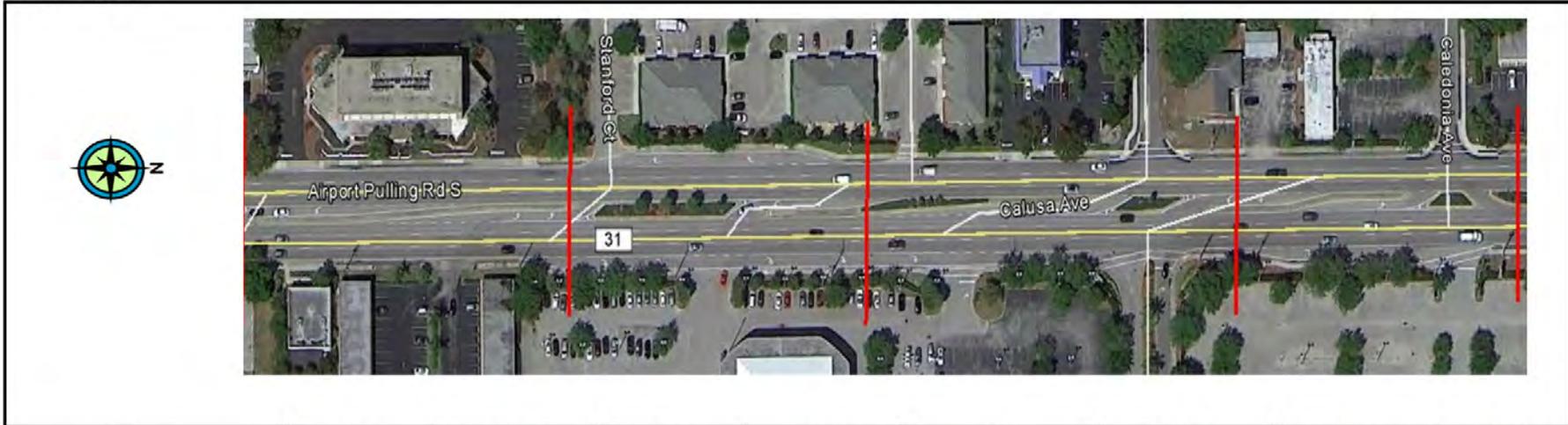
Attachment: 2015 FDOT Pedestrian/Bicycle Safety Audit (4984 : Arterial Safety Study -

**Airport Pulling Road
 Collier County**



Time	EB		WB													
	P	B	P	B	P	B	P	B	P	B	P	B	P	B	P	B
9:00 AM-9:15 AM	-	1	-	-	-	-	-	-	1	-	-	-	-	-	1	-
9:15 AM-9:30 AM	2	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1
9:30 AM-9:45 AM	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1	-
9:45 AM-10:00 AM	2	-	2	-	-	-	-	-	-	-	-	-	1	-	1	-
TOTAL	4	2	3	0	0	0	0	0	1	0	0	0	1	0	3	1

Airport Pulling Road
 Collier County



Time	EB		WB													
	P	B	P	B	P	B	P	B	P	B	P	B	P	B	P	B
11:00 AM-11:15 AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	1
11:15 AM-11:30 AM	1	-	2	-	-	-	1	-	-	-	-	-	-	-	1	-
11:30 AM-11:45 AM	1	-	-	1	1	-	-	-	-	-	-	-	-	-	-	1
11:45 AM-12:00 PM	-	-	-	-	-	-	1	-	-	1	-	-	-	-	-	1
TOTAL	2	0	2	1	1	0	2	0	0	1	0	0	0	0	3	3
12:00 PM-12:15 PM	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	2
12:15 PM-12:30 PM	2	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2
12:30 PM-12:45 PM	-	-	-	1	-	-	-	-	-	-	-	-	-	1	-	-
12:45 PM-1:00 PM	1	-	2	-	-	-	-	-	-	-	-	-	-	-	2	2
TOTAL	3	0	2	1	5	0	1	3	6							

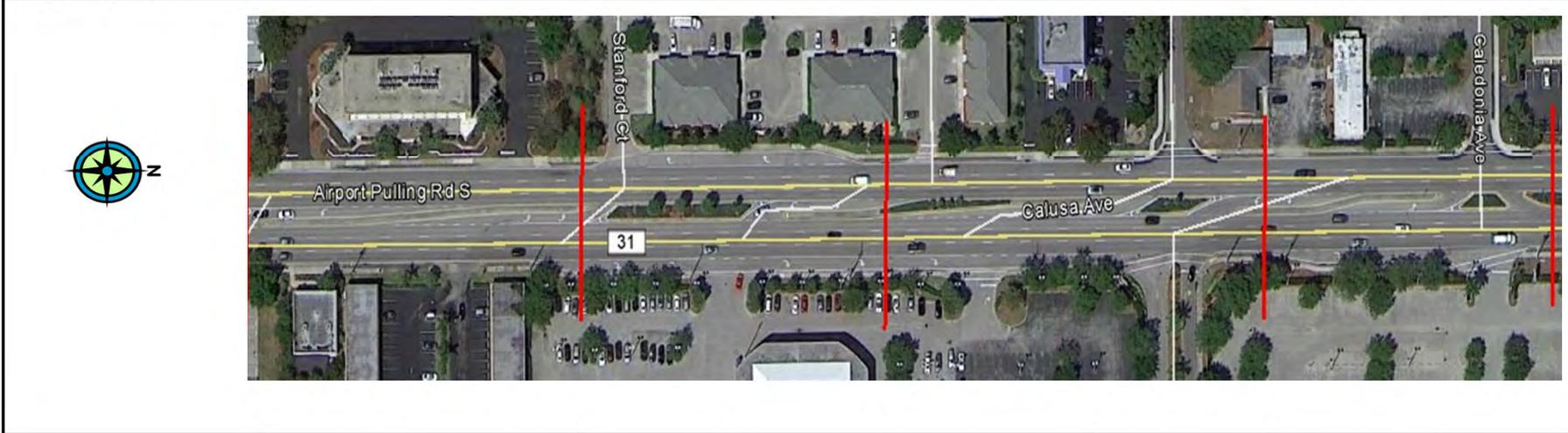
Attachment: 2015 FDOT Pedestrian/Bicycle Safety Audit (4984 : Arterial Safety Study -

**Airport Pulling Road
 Collier County**



Time	EB		WB													
	P	B	P	B	P	B	P	B	P	B	P	B	P	B	P	B
3:00 PM-3:15 PM	-	1	-	-	-	-	-	-	5	1	-	-	-	-	-	-
3:15 PM-3:30 PM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
3:30 PM-3:45 PM	2	2	-	1	-	-	-	-	-	-	-	-	-	-	-	-
3:45 PM-4:00 PM	2	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	4	3	2	1	0	0	0	0	5	1	0	0	0	0	0	1
4:00 PM-4:15 PM	-	-	-	-	2	-	-	-	-	1	-	1	-	1	-	-
4:15 PM-4:30 PM	1	-	-	-	-	1	2	-	2	-	-	-	-	-	-	1
4:30 PM-4:45 PM	4	-	-	1	-	-	1	-	-	-	-	6	-	-	1	1
4:45 PM-5:00 PM	1	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-
TOTAL	6	0	0	1	2	1	3	0	4	1	0	7	0	1	1	2

**Airport Pulling Road
 Collier County**



Time	EB		WB													
	P	B	P	B	P	B	P	B	P	B	P	B	P	B	P	B
5:00 PM-5:15 PM	2	1	-	1	-	-	-	-	1	1	-	-	-	-	-	-
5:15 PM-5:30 PM	2	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-
5:30 PM-5:45 PM	1	-	1	1	-	-	-	-	1	-	-	1	-	-	-	-
5:45 PM-6:00 PM	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	1
TOTAL	5	1	1	2	0	0	0	0	2	2	0	1	0	2	0	1

**Airport Pulling Road
 Collier County**



Time	EB		WB													
	P	B	P	B	P	B	P	B	P	B	P	B	P	B	P	B
7:00 AM-7:15 AM	-	1	-	-	-	-	-	-	1	2	-	1	-	-	-	2
7:15 AM-7:30 AM	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-
7:30 AM-7:45 AM	-	-	-	-	-	-	1	-	-	-	4	-	1	-	5	1
7:45 AM-8:00 AM	-	-	-	-	1	-	-	-	-	1	1	-	-	-	-	-
TOTAL	0	1	0	0	1	0	1	0	1	4	5	2	1	0	5	3
8:00 AM-8:15 AM	-	-	1	-	-	-	-	-	-	-	3	-	1	-	-	-
8:15 AM-8:30 AM	1	-	-	-	2	-	-	-	1	-	1	-	-	-	-	1
8:30 AM-8:45 AM	1	-	2	-	-	-	1	-	4	-	-	-	-	1	-	1
8:45 AM-9:00 AM	2	-	-	-	-	-	-	-	-	-	1	-	1	-	-	1
TOTAL	4	0	3	0	2	0	1	0	5	0	5	0	2	1	0	3

Date: 03/04/2015
 Weather : Sunny
 Surveyor: Jim/Frank

**Airport Pulling Road
 Collier County**

Section **11.C.2**
 M.P.



Time	EB		WB													
	P	B	P	B	P	B	P	B	P	B	P	B	P	B	P	B
9:00 AM-9:15 AM	-	-	1	1	-	-	-	-	-	-	-	-	1	-	-	-
9:15 AM-9:30 AM	-	-	-	-	-	-	-	-	3	-	-	-	-	-	1	-
9:30 AM-9:45 AM	-	-	2	-	-	-	-	-	2	-	-	1	2	-	3	-
9:45 AM-10:00 AM	3	-	2	1	-	-	-	-	2	-	-	-	2	-	-	-
TOTAL	3	0	5	2	0	0	0	0	7	0	0	1	5	0	4	0

Attachment: 2015 FDOT Pedestrian/Bicycle Safety Audit (4984 : Arterial Safety Study -

**Airport Pulling Road
 Collier County**



Time	EB		WB													
	P	B	P	B	P	B	P	B	P	B	P	B	P	B	P	B
11:00 AM-11:15 AM	1	-	4	-	-	-	-	-	-	-	-	-	1	-	-	1
11:15 AM-11:30 AM	1	-	2	-	-	-	-	1	-	-	-	-	1	-	-	1
11:30 AM-11:45 AM	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-
11:45 AM-12:00 PM	-	-	-	-	-	-	-	-	-	-	-	-	3	1	-	2
TOTAL	3	1	7	0	0	0	0	1	0	0	0	0	5	1	0	4
12:00 PM-12:15 PM	4	-	1	-	-	2	-	-	-	-	-	-	-	-	-	-
12:15 PM-12:30 PM	1	-	-	-	-	-	-	-	-	1	1	-	-	-	-	2
12:30 PM-12:45 PM	-	-	1	-	-	-	-	-	-	-	-	-	-	1	1	-
12:45 PM-1:00 PM	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-
TOTAL	5	0	2	0	0	2	0	0	0	1	1	0	0	2	1	2

Attachment: 2015 FDOT Pedestrian/Bicycle Safety Audit (4984 : Arterial Safety Study -

**Airport Pulling Road
 Collier County**



Time	EB		WB													
	P	B	P	B	P	B	P	B	P	B	P	B	P	B	P	B
3:00 PM-3:15 PM	-	-	1	-	-	-	-	-	-	-	1	3	-	-	-	-
3:15 PM-3:30 PM	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-
3:30 PM-3:45 PM	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	1
3:45 PM-4:00 PM	-	-	2	-	-	-	-	-	-	1	-	-	-	-	-	1
TOTAL	0	2	3	0	0	0	0	0	3	1	1	3	0	0	0	2
4:00 PM-4:15 PM	-	-	2	-	1	-	-	-	-	1	-	-	-	-	-	-
4:15 PM-4:30 PM	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1	-
4:30 PM-4:45 PM	1	2	-	-	-	-	-	-	2	2	-	-	-	2	-	-
4:45 PM-5:00 PM	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-
TOTAL	1	2	2	0	1	0	0	2	2	3	0	0	0	2	1	0

Date: 03/04/2015
 Weather : Sunny
 Surveyor: Jim/Frank

**Airport Pulling Road
 Collier County**

Section **11.C.2**
 M.P.



Time	EB		WB													
	P	B	P	B	P	B	P	B	P	B	P	B	P	B	P	B
5:00 PM-5:15 PM	-	-	-	1	1	-	-	-	1	-	-	-	-	-	-	-
5:15 PM-5:30 PM	1	-	-	2	-	-	-	-	2	-	-	-	-	-	-	-
5:30 PM-5:45 PM	2	3	1	1	-	-	-	2	-	-	-	-	-	1	1	2
5:45 PM-6:00 PM	3	-	1	-	-	2	-	-	-	-	-	-	3	2	1	1
TOTAL	6	3	2	4	1	2	0	2	3	0	0	0	3	3	2	3

Attachment: 2015 FDOT Pedestrian/Bicycle Safety Audit (4984 : Arterial Safety Study -



**Transit Ridership Volumes for Study Corridor Stops
Yearly Ridership**

Bus Stop ID	Bus Stop Description		Direction	Total Boardings All Routes	Total Alightings All Routes	Total Passengers	Bikes	Strollers	Wheelchairs
64	Airport Road	Glades Blvd	OB	14470	2317	16787	960	6	4
67	Airport Road	Great Blue Drive	OB	6592	548	7140	321	0	1
68	Airport Road	Government Center	OB	15861	5072	20933	521	14	1
69	Airport Road	Davis Blvd	OB	2603	1073	3676	89	0	1
70	Airport Road	Hibiscus Ave	OB	9829	2165	11994	270	3	1
116	Airport Road	Estey Ave	IB	3069	8810	11879	30	0	2
117	Airport Road	Conneticut	IB	166	380	546	118	2	2
118	Airport Road	Glades Blvd	IB	2955	15764	18719	25	0	5
119	Airport Road	US 41	IB	668	11844	12512	46	3	1
247	Naples Town Center		IB	914	2398	3312	13	2	7
2	US 41	Andrew Dr	OB	4326	514	4840	0	0	0
3	US 41	Shadowlawn Drive	OB	4457	1292	5749	0	0	0
4	US 41	Commercial Drive	OB	2428	1437	3865	0	0	0
61	US 41	Palm Street	IB	841	2451	3292	12	0	1
63	US 41	River Drive	IB	355	243	598	0	0	0
137	US 41	Lakewood	IB	1870	3197	5067	0	0	0
138	US 41	Guilford	IB	420	2511	2931	33	0	0
140	US 41	Seminole Avenue	OB	1085	458	1543	16	0	1
141	US 41	Guilford	OB	1625	585	2210	92	3	1
147	US 41	Lakewood	OB	2775	2371	5146	54	2	1
219	US 41	Courthouse Shadows	OB	9492	3230	12722	453	4	9
139	Walmart	US 41	IB	541	8579	9120	23	2	2

Attachment: 2015 FDOT Pedestrian/Bicycle Safety Audit (4984 : Arterial Safety Study -



APPENDIX E
Collision and Condition Diagrams

TIME	
7-8 AM	2
8-9 AM	3
9-10 AM	1
10-11 AM	0
11-12 PM	0
12-1 PM	6
1-2 PM	2
2-3 PM	0
3-4 PM	13
4-5 PM	11
5-6 PM	8

2
3
1
0
0
1
0
1
0
1
0
2

3
1
0
0
1
0
1
0
1
0
0
2

0
0
0
0
0
3
0
1
2
0
1

0
0
0
0
0
0
1
4
4
1
1



SYMBOLS

	SIGNALIZED INTERSECTION		BICYCLIST		VEHICLE MOVEMENT
	EXISTING OVERHEAD SIGN CANTILEVER STRUCTURE		PEDESTRIAN		PERSONAL INJURY
	EXISTING SIGN POST(S)		EXISTING BUS STOP		FATALITY
					COLLISION NUMBER

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

CARDNO
12481 TELECOM DRIVE
TAMPA, FL 33637
(813) 221-0048
CERTIFICATE OF AUTHORIZATION NO. 3843
SUSAN C. JOEL, PE NO. 46018

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
90	COLLIER	

COLLISION AND CONDITION
DIAGRAM (1)

SHEET NO.
Packet Pg. 617

0
0
0
0
0
0
0
0
0
0
0
0

TIME
7-8 AM
8-9 AM
9-10 AM
10-11 AM
11-12 PM
12-1 PM
1-2 PM
2-3 PM
3-4 PM
4-5 PM
5-6 PM

4
5
1
1
2
1
3
3
6
0
0

1
2
0
0
3
0
0
2
7
10
2

8
6
4
4
5
5
1
0
1
3
3

5
7
1
5
3
14
7
5
8
11
23



SYMBOLS

	SIGNALIZED INTERSECTION		BICYCLIST		VEHICLE MOVEMENT
	EXISTING OVERHEAD SIGN CANTILEVER STRUCTURE		PEDESTRIAN		PERSONAL INJURY
	EXISTING SIGN POST(S)		EXISTING BUS STOP		FATALITY
			COLLISION NUMBER		

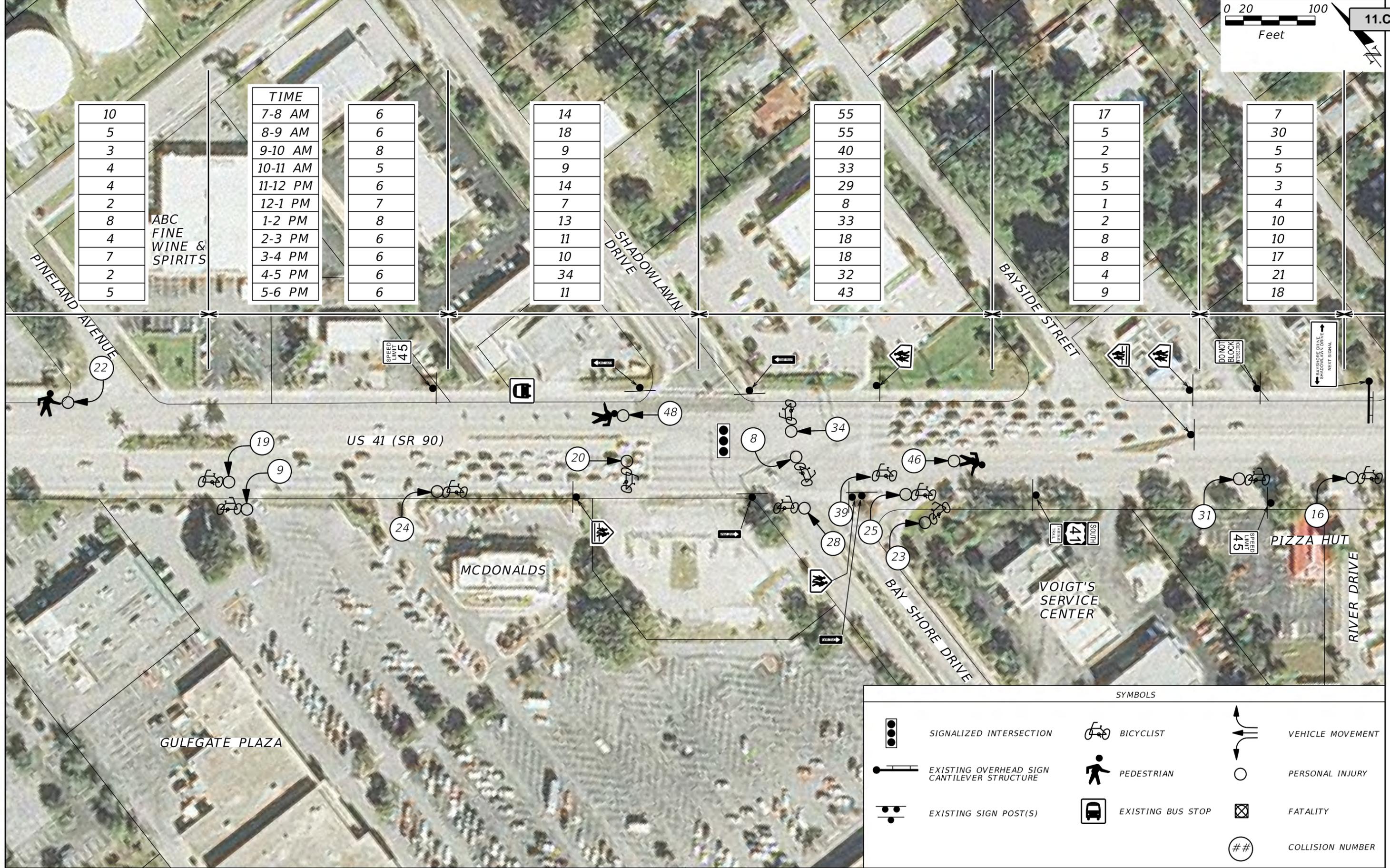
REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

CARDNO
12481 TELECOM DRIVE
TAMPA, FL 33637
(813) 221-0048
CERTIFICATE OF AUTHORIZATION NO. 3843
SUSAN C. JOEL, PE NO. 46018

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
90	COLLIER	

**COLLISION AND CONDITION
DIAGRAM (2)**

SHEET NO. **Packet Pg. 618**



SYMBOLS

	SIGNALIZED INTERSECTION		BICYCLIST		VEHICLE MOVEMENT
	EXISTING OVERHEAD SIGN CANTILEVER STRUCTURE		PEDESTRIAN		PERSONAL INJURY
	EXISTING SIGN POST(S)		EXISTING BUS STOP		FATALITY
					COLLISION NUMBER

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

CARDNO
12481 TELECOM DRIVE
TAMPA, FL 33637
(813) 221-0048
CERTIFICATE OF AUTHORIZATION NO. 3843
SUSAN C. JOEL, PE NO. 46018

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION
ROAD NO. 90 COUNTY COLLIER FINANCIAL PROJECT ID

COLLISION AND CONDITION
DIAGRAM (3)
SHEET NO. Packet Pg. 619

16	7-8 AM	2	0	0	5	3	5
31	8-9 AM	0	0	0	3	0	2
14	9-10 AM	5	0	0	2	0	2
22	10-11 AM	6	0	1	7	1	1
13	11-12 PM	0	0	4	0	0	1
12	12-1 PM	7	4	11	6	1	2
16	1-2 PM	11	2	3	2	3	3
8	2-3 PM	8	0	3	2	3	9
17	3-4 PM	8	2	2	4	2	11
23	4-5 PM	24	1	1	2	3	9
28	5-6 PM	13	0	1	6	7	8



SYMBOLS

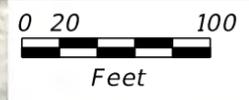
	SIGNALIZED INTERSECTION		BICYCLIST		VEHICLE MOVEMENT
	EXISTING OVERHEAD SIGN CANTILEVER STRUCTURE		PEDESTRIAN		PERSONAL INJURY
	EXISTING SIGN POST(S)		EXISTING BUS STOP		FATALITY
			COLLISION NUMBER		

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

CARDNO
12481 TELECOM DRIVE
TAMPA, FL 33637
(813) 221-0048
CERTIFICATE OF AUTHORIZATION NO. 3843
SUSAN C. JOEL, PE NO. 46018

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
90	COLLIER	

**COLLISION AND CONDITION
DIAGRAM (4)**



11.C.2

TIME	
7-8 AM	4
8-9 AM	3
9-10 AM	3
10-11 AM	0
11-12 PM	0
12-1 PM	0
1-2 PM	2
2-3 PM	7
3-4 PM	1
4-5 PM	2
5-6 PM	2

4
3
3
0
0
0
2
7
1
2
2

12
18
29
25
25
33
26
28
27
24
26

4
5
5
2
5
5
2
0
0
0
0

14
37
33
38
33
42
40
49
32
46
28

9
18
33
24
35
33
30
31
16
25
18

0
0
0
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0
0
0



SYMBOLS

	SIGNALIZED INTERSECTION		BICYCLIST		VEHICLE MOVEMENT
	EXISTING OVERHEAD SIGN CANTILEVER STRUCTURE		PEDESTRIAN		PERSONAL INJURY
	EXISTING SIGN POST(S)		EXISTING BUS STOP		FATALITY
					COLLISION NUMBER

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

CARDNO
12481 TELECOM DRIVE
TAMPA, FL 33637
(813) 221-0048

CERTIFICATE OF AUTHORIZATION NO. 3843
SUSAN C. JOEL, PE NO. 46018

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
90	COLLIER	

**COLLISION AND CONDITION
DIAGRAM (6)**

SHEET NO. **Packet Pg. 622**

Attachment: 2015 FDOT Pedestrian/Bicycle Safety Audit (4984 : Arterial Safety Study - SR90/US41/Tamiami Trail E from Commercial

TIME
7-8 AM
8-9 AM
9-10 AM
10-11 AM
11-12 PM
12-1 PM
1-2 PM
2-3 PM
3-4 PM
4-5 PM
5-6 PM

0
0
0
0
0
0
0
0
0
0

0
1
0
0
0
1
1
0
0
0

5
0
2
2
5
1
2
3
0
2
1

RIB CITY GRILL

US 41 (SR 90)

SHERWIN WILLIAMS PAINT

GUILFORD ROAD

SYMBOLS

	SIGNALIZED INTERSECTION		BICYCLIST		VEHICLE MOVEMENT
	EXISTING OVERHEAD SIGN CANTILEVER STRUCTURE		PEDESTRIAN		PERSONAL INJURY
	EXISTING SIGN POST(S)		EXISTING BUS STOP		FATALITY
					COLLISION NUMBER

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

CARDNO
12481 TELECOM DRIVE
TAMPA, FL 33637
(813) 221-0048

CERTIFICATE OF AUTHORIZATION NO. 3843
SUSAN C. JOEL, PE NO. 46018

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
90	COLLIER	

**COLLISION AND CONDITION
DIAGRAM (7)**

SHEET NO.
Packet Pg. 623



SYMBOLS

	SIGNALIZED INTERSECTION		BICYCLIST		VEHICLE MOVEMENT
	EXISTING OVERHEAD SIGN CANTILEVER STRUCTURE		PEDESTRIAN		PERSONAL INJURY
	EXISTING SIGN POST(S)		EXISTING BUS STOP		FATALITY
					COLLISION NUMBER

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STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
90	COLLIER	

**COLLISION AND CONDITION
DIAGRAM (8)**

TIME	1	2	3	4	5	6	7	8	9	10	11
7-8 AM	2	0	6	1	1	4	0	2	8	1	
8-9 AM	3	0	9	3	8	4	4	4	8	4	
9-10 AM	0	0	8	3	4	3	0	1	6	8	
10-11 AM	2	0	6	8	1	2	0	0	9	8	
11-12 PM	3	0	5	0	7	3	0	1	1	5	
12-1 PM	2	0	13	8	5	5	0	0	1	2	
1-2 PM	3	0	8	6	8	2	0	0	3	2	
2-3 PM	2	0	12	3	7	7	0	3	5	6	
3-4 PM	5	0	9	6	3	4	0	3	10	7	
4-5 PM	5	0	5	5	3	4	0	6	11	5	
5-6 PM	6	0	12	6	7	5	0	0	5	11	



SYMBOLS

	SIGNALIZED INTERSECTION		BICYCLIST		VEHICLE MOVEMENT
	EXISTING OVERHEAD SIGN CANTILEVER STRUCTURE		PEDESTRIAN		PERSONAL INJURY
	EXISTING SIGN POST(S)		EXISTING BUS STOP		FATALITY
			##		COLLISION NUMBER

REVISIONS			
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
	COLLIER	

COLLISION AND CONDITION DIAGRAM (9)

SHEET NO. **Packet Pg. 625**



SYMBOLS

	SIGNALIZED INTERSECTION		BICYCLIST		VEHICLE MOVEMENT
	EXISTING OVERHEAD SIGN CANTILEVER STRUCTURE		PEDESTRIAN		PERSONAL INJURY
	EXISTING SIGN POST(S)		EXISTING BUS STOP		FATALITY
			##		COLLISION NUMBER

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

CARDNO
 12481 TELECOM DRIVE
 TAMPA, FL 33637
 (813) 221-0048
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 SUSAN C. JOEL, PE NO. 46018

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
	COLLIER	

**COLLISION AND CONDITION
DIAGRAM (10)**

TIME
7-8 AM
8-9 AM
9-10 AM
10-11 AM
11-12 PM
12-1 PM
1-2 PM
2-3 PM
3-4 PM
4-5 PM
5-6 PM

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SYMBOLS			
	SIGNALIZED INTERSECTION		BICYCLIST
	EXISTING OVERHEAD SIGN CANTILEVER STRUCTURE		PEDESTRIAN
	EXISTING SIGN POST(S)		EXISTING BUS STOP
	VEHICLE MOVEMENT		PERSONAL INJURY
	FATALITY		COLLISION NUMBER

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

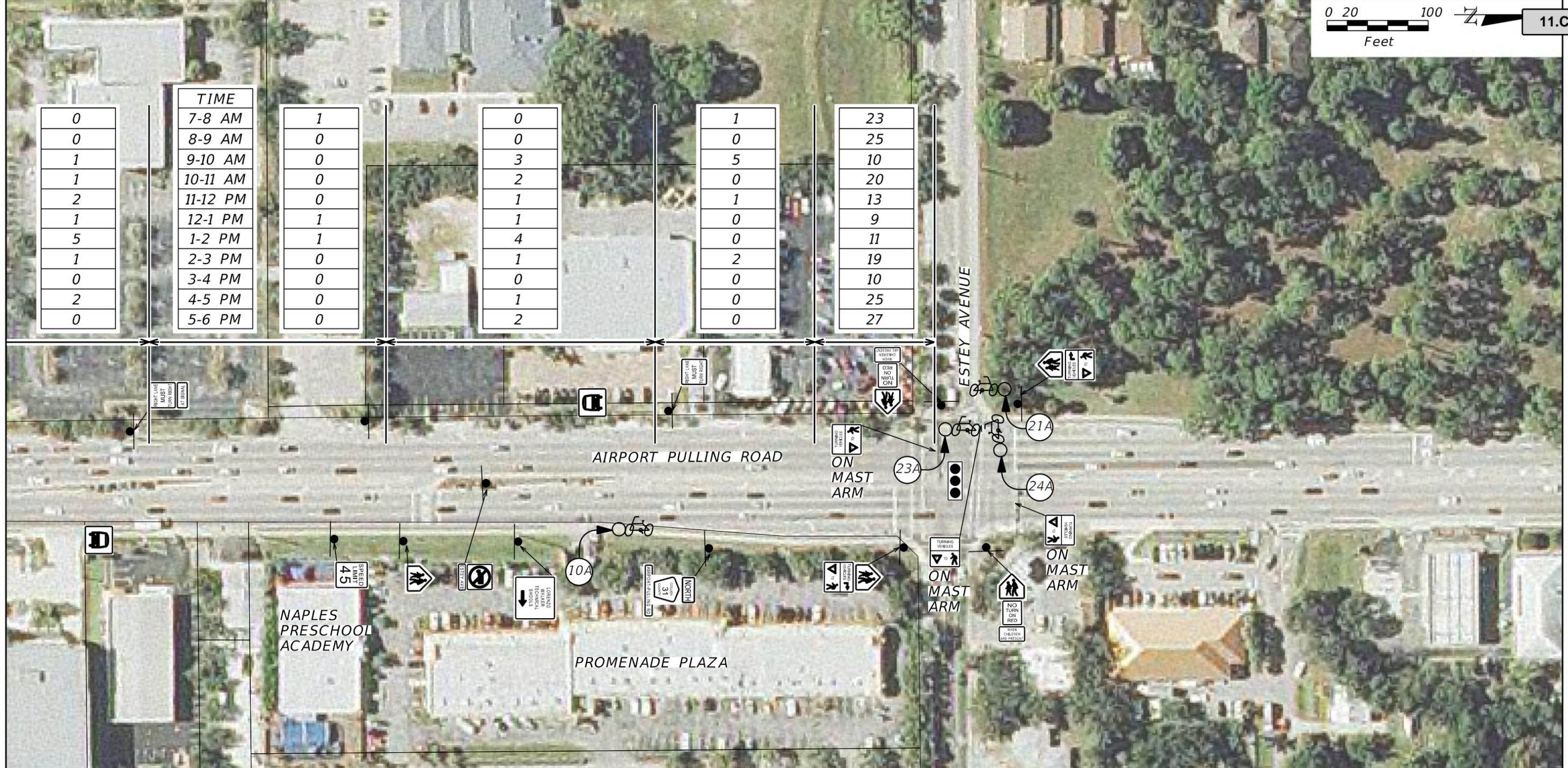
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STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
	COLLIER	

**COLLISION AND CONDITION
DIAGRAM (11)**

SHEET NO.
Packet Pg. 627

0	7-8 AM	1	0	1	23
0	8-9 AM	0	0	0	25
1	9-10 AM	0	3	5	10
1	10-11 AM	0	2	0	20
2	11-12 PM	0	1	1	13
1	12-1 PM	1	1	0	9
5	1-2 PM	1	4	0	11
1	2-3 PM	0	1	2	19
0	3-4 PM	0	0	0	10
2	4-5 PM	0	1	0	25
0	5-6 PM	0	2	0	27



SYMBOLS			
	SIGNALIZED INTERSECTION		BICYCLIST
	EXISTING OVERHEAD SIGN CANTILEVER STRUCTURE		PEDESTRIAN
	EXISTING SIGN POST(S)		EXISTING BUS STOP
	VEHICLE MOVEMENT		PERSONAL INJURY
	FATALITY		COLLISION NUMBER

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
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COLLISION AND CONDITION
DIAGRAM (12)

SHEET NO. Packet Pg. 628

EXECUTIVE SUMMARY

Draft Scope of Work for the 2045 Long Range Transportation Plan (LRTP)

OBJECTIVE: For the Board to receive a presentation on the Draft Scope for the 2045 Long Range Transportation Plan (LRTP).

CONSIDERATIONS: The MPO is required to complete a LRTP in order to receive federal funds. The LRTP is updated every five years and must maintain a minimum time horizon of 20 years in order to be in federal compliance. The 2040 LRTP was adopted in December 2015; therefore the 2045 LRTP must be adopted by December 2020. The previous LRTP update took two years to complete.

The draft Scope for the 2045 LRTP (**Attachment 1**) is based upon several sources of information, beginning with the task orders and work product descriptions that guided the development of the 2040 LRTP; followed by input received to-date from the Technical Advisory Committee and the MPO Board; guidance anticipated from the Florida Department of Transportation (FDOT) regarding Automated Connected Electric Vehicles (ACES); and finally, the “Federal Strategies for Implementing Requirements for LRTP Updates for the Florida MPOs” dated January 2018 (**Attachment 2**).

The draft Scope for the 2045 LRTP proposes the following initiatives:

- Considerations of policies/recommendations contained in Collier County Community Housing Plan - 2017 Update
- Consideration of policies/recommendations contained in the MPO’s Congestion Management Process 2017 Update
- Partnering with Lee County MPO in a regional Origin and Destination Study using cell phone/blue tooth technology
- Coordinating with ongoing City of Naples and Collier County studies regarding sea level rise and stormwater and transportation infrastructure vulnerabilities.
- Automated Connected Electric Vehicles Shared Mobility (ACES) addressed in FDOT D1 Regional Travel Demand Model (RTDM) and discussed in LRTP including positive and negative impacts.

COMMITTEE RECOMMENDATIONS: The Technical Advisory Committee (TAC) and Citizens Advisory Committee (CAC) reviewed the draft Scope at their February 26th meetings. The TAC’s comments have been incorporated in the draft attached for Board review. The comments were:

- To coordinate with ongoing sea level rise studies rather than conduct a costly and duplicative study as part of the LRTP update
- To address both the positive and negative impacts that may occur from the introduction of ACES technology
- The LRTP should focus on identifying transportation network needs
- Support for more TAC leadership and CAC/BPAC involvement and expanded public outreach as proposed under Public Involvement in place of forming a stakeholders committee

STAFF RECOMMENDATION: That the Board receive a presentation on the Draft Scope for the 2045 LRTP and provide comments.

Prepared By: Anne McLaughlin, MPO Executive Director

ATTACHMENT(S)

1. Draft 2045 LRTP Scope of Work (PDF)
2. Federal Expectations for LRTP Updates (PDF)

03/09/2018

**COLLIER COUNTY
Metropolitan Planning Organization**

Item Number: 11.D**Doc ID:** 4988**Item Summary:** Draft Scope of Work for the 2045 Long Range Transportation Plan (LRTP)**Meeting Date:** 03/09/2018**Prepared by:**

Title: Planner, Senior – Metropolitan Planning Organization

Name: Brandy Otero

03/01/2018 10:30 AM

Submitted by:

Title: Executive Director - MPO – Metropolitan Planning Organization

Name: Anne McLaughlin

03/01/2018 10:30 AM

Approved By:**Review:**

Metropolitan Planning Organization	Brandy Otero	MPO Analyst Review	Completed	03/01/2018 10:30 AM
Metropolitan Planning Organization	Anne McLaughlin	MPO Executive Director Review	Completed	03/01/2018 2:15 PM
Metropolitan Planning Organization	Anne McLaughlin	Meeting Pending		03/09/2018 9:00 AM

2045 LRTP Update Scope of Services

MPO BOARD REVIEW DRAFT

March 9, 2018 Meeting

BACKGROUND

Every five years, the Collier Metropolitan Planning Organization (MPO) updates its Long Range Transportation Plan (LRTP). Pursuant to federal guidelines, the MPO is scheduled to adopt a 2045 LRTP by December 2020. The purpose of this plan update is to advance a 20-year planning horizon and to adopt a Cost Feasible Plan (CFP) that encourages and promotes a safe and efficient, multi-modal transportation system that addresses the future year transportation demands. Results of the LRTP process are intended to serve the overall mobility needs of the area while also being cost effective and consistent with national, state and local goals and objectives. The 2045 LRTP must address national Performance Measures and state-adopted Performance Targets.

2045 INITIATIVES

Collier MPO has initiated several studies which will be in process or completed as this Request For Proposals (RFP) is published. These studies are intended to inform the development of the 2045 LRTP:

- **Collier County Community Housing Plan 2017 Update** -adopted by the Board of County Commissioners, the section on Transportation Enhancements has implications for the 2045 LRTP with regard to Goals and Objectives, incorporating transit and Travel Demand Management into scenario planning.
- **Congestion Management Process** – the 2017 Update adopted by the MPO includes the demand-side management options and intensification of transit services linked with more dense and diversified land uses in corridors as suggested in the County’s Community Housing Plan.
- **Origin and Destination Study** – Collier MPO will participate in a regional Origin and Destination Study led by Lee County MPO.

Transportation Network’s Vulnerability to Climate Change - Report on current City of Naples and Collier County studies underway that will provide insights regarding the vulnerability of transportation infrastructure to sea level rise and increasingly frequent and severe storm events. Introduce a discussion of policy implications, particularly for future updates to the LRTP as the current studies are completed:

- Collier County is working with the University of Florida which received a grant from the National Oceanic and Atmospheric Administration (NOAA) for a study to predict the impact of near-future sea level rise and storm surge on Collier County. The primary deliverable is a Web-Based Interactive Decision-Support Tool for Adaption of Coastal urban and Natural Ecosystems (ACUNE). This is a 3-year study scheduled for completion in June 2020.

- The City of Naples is updating its Stormwater Management Plan. The anticipated completion date is summer 2018, at which time the City will begin studying potential Climate Change impacts. This study is anticipated to require two years to complete.
 - Studies underway by State and Federal regulatory agencies overseeing the design of stormwater and transportation infrastructure will be reported on as part of this section.
- **Automated Connected Electric Vehicle Shared mobility (ACES)** - the MPO wishes to address FDOT's guidance on incorporating Automated Connected Electric Vehicle Shared mobility (ACES) technology into the District 1 Regional Travel Demand Model (RTDM) and other components of the 2045 LRTP.

SCOPE OF WORK

The MPO is issuing a RFP to hire a consultant team to serve as the Team Project Manager and coordinate the planning, analysis and public involvement services. The MPO retains all rights and ownership to the data, reports, presentations, maps, video and figures delivered by the Consultant in order to complete the tasks in this Scope of Services. The consultant will undertake the following tasks during the development of the 2045 LRTP:

Tasks Applicable to All Phases

1. Project Management - provide over-all team project management, QA/QC review of documents and provide support services as needed. Activities include a project kick-off meeting, management and oversight of the activities and products produced by the consultant team members and assisting MPO staff with management of the 2045 LRTP Update. Consultant will coordinate delivery of consultant team work products, provide technical support during staff review of products and communicate needed revisions to the consultant team. Consultant will communicate with all team members as needed to effectively manage the delivery of the services provided by each firm and will be responsible for maintaining the content of the project schedule, making adjustments as needed and communicating any changes to team members.
2. Districtwide Travel Model Development Process Oversight - support MPO staff in review and coordination on the update of the FDOT District-wide Regional Planning Model (D1RPM). The D1RPM will be the primary travel demand forecasting tool for updating the LRTP. Consultant will attend Districtwide model development meetings as deemed necessary by the MPO and advise the staff on issues related to the progress of the model development process and the use of the model for developing the Needs Plan and the Cost Feasible Plan. Coordination efforts include providing additional model data and input assumptions to FDOT, and reviewing intermediate model data files provided by FDOT for quality and completeness. Oversight may include incorporating findings from the joint Lee County/Collier MPO Origin and Destination Study.
3. Public Involvement Activities – Consultant will develop a Public Involvement Plan (PIP) for the 2045 LRTP. The PIP will include the provision of on-line opportunities for public input by establishing an interactive project web site and use of social media. Consultant will provide on-line surveys and maps, prepare necessary materials, exhibits, presentations, advertising and handouts for meetings with the MPO Board and Advisory Committees. Consultant will take

minutes and record verbal and documented comments from the public, staff and elected officials and keep a record of how comments were addressed in subsequent revisions to the LRTP; conversely, if comments did not result in revisions, the Consultant will briefly explain why. **The Consultant will provide translation services for outreach to Spanish and Haitian-speaking residents of Collier County.** Staff will supplement the consultant-supported outreach by giving presentations to local homeowner's and civic associations and by hosting informational booths at special events. The MPO will follow its Government to Government Public Outreach policy to conduct outreach to Tribal entities. Consultant will present to the following entities at least once during each of the four phases in the development of the 2045 LRTP.

The Citizens Advisory and Technical Advisory Committees (CAC and TAC) may be combined into a single joint meeting; as may the Congestion Management Committee (CMC) and the Bicycle and Pedestrian Advisory Committee (BPAC). Consultant will schedule four Advisory Network/General Public meetings in a variety of locations to encourage participation by different socio-economic and demographic groups within Collier County.

The MPO is developing an Advisory Network consisting of members of the public who have indicated an interest in participating in discussions on specific transportation topics. MPO staff will contact Advisory Network members and notify them of General Public open houses, meetings and workshops.

- MPO Board
 - Advisory Committees – CMC, CAC, TAC and BPAC
 - Advisory Network/General Public open houses, meetings, and/or workshops
 - Tribal Outreach – conducted according to the MPO's Government to Government Public Involvement Policy
4. GIS Database Development - The Consultant will ensure the MPO receives all data pertinent to the TDM and all LRTP maps in a GIS platform compatible with the MPO's software. Maps will also be submitted as PDFs. (Data sources include FDOT, MPO member entities and the Consultant)

Phase One Tasks – Existing Conditions, Forecasts, Goals, Performance Measures

1. Visioning – Consultant will conduct a Visioning workshop with the MPO Board
2. Opportunities and Challenges – Identify and analyze trends in terms of growth in population and employment, commuting times, VMT, crash statistics, congestion, housing location and access to jobs and services, and the cost of housing inclusive of the cost of transportation to get to/from jobs and services. (See Center for Neighborhood Technology, Housing and Transportation Affordability Index; Affordable Housing Report for Collier County.)
3. Goals and Objectives - develop Goals and Objectives based on federally mandated planning factors and supporting FDOT's primary goal of Safety and the results of the Visioning process
4. Performance Measures and Targets – Incorporate State/MPO performance targets addressing national performance measures. Consultant may suggest additional performance measures as appropriate based on the Vision, Goals and Objectives.

5. 2045 Socio-economic Data Development and District 1 Regional Transportation Demand Model (TDM) Validation – review and comment as needed pending FDOT release of preliminary TDM TAZ assignments for the 2015 Base Year. [The anticipated release of preliminary 2015 baseline data for MPO review is April 2019, with refinements continuing through the end of December 2019.]
6. Allocate 2045 Socio-economic Forecasts to TAZs – Working closely with the TAC, allocate 2045 socio-economic forecasts provided by FDOT and the Bureau of Business and Economic Research (BBER) to MPO TAZ's based on current approved development plans and adopted land use regulations and policies. The allocation will take into account a number of factors, such as parcel size, environmental conditions, existing zoning, and approved masterplans. The TAC will take the lead in determining the allocation with support provided by the Consultant and MPO staff.

Phase One Deliverables:

- Public Involvement Plan
- Updated Project Schedule
- Vision, Goals and Objectives
- Performance Measures and Targets
- 2045 Socio-Economic Data Set and Technical memorandum, proposed updated Traffic Analysis Zone (TAZ) structure, if needed
- ACES – how the LRTP and TDM will address it, including decreased revenues
- Existing Conditions Analysis, including Environmental Justice Communities and Preliminary Climate Change Vulnerability Assessment
- Planning Consistency – summarize pertinent elements of the Florida Department of Transportation LRTP, SIS, Freight Plan and SHSP

Phase Two Tasks – Scenario Planning

1. Alternative Land Development Scenario Development and Testing using County's Interactive Growth Model (CIGM) – develop land development alternatives and associated transportation infrastructure needs in 5-year increments through year 2045, using the CIGM in close coordination with the TAC. The purpose is to test alternative outcomes for the 2045 Needs Plan and 2045 Network map. Incorporate Alternative Transit and Travel Demand Management (TDM) Scenarios to test the effectiveness of diversified transportation options, increased transit and bike/ped modal share; Transit Oriented Development (TOD) infill and in growth areas along transit corridors to support Bus Rapid Transit, mixed-use and walkable development. The **2017 Congestion Management Process** recommends conducting the following scenario testing to determine their potential effectiveness in this region, if the area were to reach full build-out under current land use policies and regulations:
 - Land Use Alternatives – high density, mixed-use centers and corridors as infill, new development or redevelopment joined with alternative transportation scenarios such as:
 - Bus Rapid Transit Corridors
 - New Multi and Intermodal Hubs
 - Enhanced Travel Demand Management

- Designing arterials to freeway standards, including overpasses and other, potentially less costly intersection treatments such as continuous flow intersections

The **Collier County Community Housing Plan** (2017) envisions a scenario in which transportation corridors are identified for multi-family development (this could include infill and redevelopment), and bus rapid transit and express service lines and a park and ride system are implemented. This vision is supported by the **Congestion Management Process** (2017) along with the addition of a robust Transit Demand Management (TDM) program in the region.

2. Existing and Committed Network – develop Existing and Committed Transportation Network based on the current MPO Transportation Improvement Program and FDOT Work Program.
3. Project Selection and Prioritization Criteria – develop project selection and prioritization criteria in close coordination with the TAC, to address the Vision, Goals and Objectives, Performance Measures and Targets established for the 2045 LRTP and the following federally mandated Metropolitan Planning Factors that all LRTP's are required to address (23 CFR 450.306):
 - 1) Support the **economic vitality** of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency;
 - (2) Increase the **safety** of the transportation system for **motorized and non-motorized** users;
 - (3) Increase the **security** of the transportation system for **motorized and non-motorized** users;
 - (4) Increase **accessibility and mobility** of **people and freight**;
 - (5) Protect and enhance the **environment**, promote **energy conservation**, improve the **quality of life**, and promote **consistency** between transportation improvements and State and local **planned growth and economic development** patterns;
 - (6) Enhance the **integration and connectivity** of the transportation system, across and between modes, for **people and freight**;
 - (7) Promote **efficient system management and operation**;
 - (8) Emphasize the **preservation** of the existing transportation system;
 - (9) Improve the **resiliency and reliability** of the transportation system and reduce or **mitigate stormwater impacts of surface transportation**; and
 - (10) Enhance **travel and tourism**.

Phase Two Deliverables

- Report summarizing results of scenario planning, project selection and prioritization criteria

Phase Three Tasks – Needs and Cost Feasible Plan

1. System-wide Needs Plan – identify the appropriate level of needed improvements and modifications based on future conditions, the guidance provided in the Vision, Goals, Objectives and Project Selection and Prioritization Criteria. The recommendations will provide a long-term perspective for

how various modes of travel integrate/interface together given existing and future conditions/constraints and the region's overall economic vision. Consultant will summarize recommended improvements in a Systems Needs Plan for each mode.

2. Revenue Projections - report on FDOT's forecasted revenues for Collier MPO and potential trade-offs based on the Project Selection Criteria and public input.
3. Preliminary and Final Cost Feasible Plan – based on projected revenues and input received thus far, refine the transportation network identified in the Needs Plan to develop the Cost Feasible Plan.
4. Environmental Screening – screen all new, previously unscreened improvements using FDOT's Efficient Transportation Decision Making (ETDM) process, available on the FDOT website.
5. Environmental Justice Screening – incorporate Collier MPO's identified Environmental Justice communities and populations into an analysis of the cost/benefit of proposed Cost Feasible Plan to determine whether EJ communities and populations share equally in the benefits and the network and are not disproportionately affected by the negative impacts of the network.

Phase Three Deliverables

- Preliminary and Final Needs Plan
- Preliminary and Final Cost Feasible Plan

Phase Four Tasks – Preliminary and Final L RTP

Prepare first a Preliminary, followed by the Final 2045 L RTP addressing all technical requirements, as identified in the FHWA's Expectations Letter (for L RTPs). The MPOAC's 10/4/2017 draft is attached. **Tasks that are in addition to the FHWA's Expectations Letter are noted in bolded text:**

1. Record of Public Involvement – Comments received and how addressed
2. Planning Factors
3. SHSP Consistency
4. Freight
5. Environmental Analysis
 - **Introductory Discussion of Implications of Climate Change -**
 - ETDM Review
 - EJ Review
 - Conclusions
6. **FDOT ACES guidance – including potential positive and negative impacts**
7. Congestion Management
8. Performance Management – Measures and Targets
9. Multimodal Feasibility
10. Transit Asset Management (TAM) – deadline to adopt a TAM is October 1, 2018; requires coordination between the MPO and local transit providers
11. Technical Memos – Final Needs Assessment Model Run; Cost Feasible Plan Model run
12. **Additional model runs and data reconciliation as required to bring the FDOT D1 Regional Travel Demand Model in sync with the final adopted 2045 L RTP.**

The anticipated Table of Contents for the Preliminary and Final 2045 LRTP is provided below for guidance, based on previous Collier MPO LRTPs:

- Executive Summary
- Introduction and Background
- Plan Process
- Challenges and Opportunities
- Vision, Goals and Objectives and Federal/State Requirements (Planning Factors)
- Socioeconomic Land Use Forecast
- System-wide Needs Assessment and Plan
 - Existing +Committed Network
 - Scenarios - Investment Alternatives
 - Needs plan
- Financial Plan
- Cost Feasible Plan
- Implementation

Phase Four Deliverables

- Preliminary and Final 2045 LRTP
- Supporting Documentation
- Data Files

Federal Strategies for Implementing Requirements for LRTP Updates for the Florida MPOs

January 2018

The Federal Highway Administration (FHWA), in cooperation with the Federal Transit Administration (FTA), developed this document to provide clarification to the Florida Department of Transportation (FDOT) and Florida's Metropolitan Planning Organizations (MPOs) regarding our expectations for meeting some of the requirements to be addressed in the next cycle of Long Range Transportation Plan (LRTP) updates. 23 CFR 450.306, 316 and 324 describe the basic requirements of the scope of the metropolitan transportation planning process, including a documented public participation plan, and development and content of the LRTPs respectively.

Addressing Current Requirements

The following information is presented to highlight notable areas for improvement, as well as those of potential concern, in order to proactively assist the MPOs in meeting federal planning requirements. These topic areas were selected based on a past history of issues observed with them through our general stewardship responsibilities, or through the oversight responsibilities via the Transportation Management Area (TMA) certification reviews. FHWA and FTA would be pleased to work with FDOT and the MPOs to discuss interpretation examples and/or statewide templates as appropriate to support implementation consistency. Additional areas of concern may be addressed on an individual MPO basis as needed throughout the LRTP development process. Citations noted refer to regulations published in the May 27, 2016 *Federal Register*.

Stakeholder Coordination and Input

Specific Public Involvement Strategies: MPOs are required to develop a written plan that documents and explicitly describes the procedures, strategies, and outcomes of stakeholder involvement in the planning process for all the MPOs products and processes, including, but not limited to, the timing of and timeframe for public/stakeholder input on the LRTP and its amendments. The MPOs should take the time to ensure their LRTP outreach strategies in their public participation plan (PPP), whether documented in an overall MPO PPP or one specifically for LRTP outreach, are clear, transparent, and accurately describes when and how their stakeholders can be involved in the process. To this end, having non-transportation professional(s) review the document and provide their understanding of when and how long the public comment periods occur for the various planning products can be helpful to ensure the information is being interpreted as intended. {23 CFR 450.316(a)(1)}

Public Involvement/Tribal/Resource Agency Consultation: Consultation on the MPO's planning products (including the LRTP) with the appropriate Indian Tribal governments and Federal land management agencies (when the planning area includes such lands) is required to be documented. The interaction documentation with these stakeholders needs to outline the roles, responsibilities and key decision points for consulting with other governments and agencies. MPOs should ensure that their plans and/or documentation include such procedures.

Additionally, State and local agencies responsible for land use management, natural resources, environmental protection, conservation and historic preservation are required to be consulted during the development of the

L RTP. This consultation consists of comparisons of state conservation plans/maps, and inventories of natural or historical resources with transportation plans, as appropriate and if available. This consultation process is also required to be documented, ideally in the public participation plan. Note that the Tribal governments and resource agencies mentioned above are also required to be involved in the development of the various consultation processes with these agencies. {23 CFR 450.316(a)(1), (c), (d), (e); 23 CFR 450.324(g)}

Measures of Effectiveness: Many MPOs have what appear to be very successful strategies for reaching out and incorporating public comment into their products and processes. However, there is no systematic confirmation or validation that the strategies are indeed working. MPOs are required to periodically review the effectiveness of the procedures and strategies described within the public participation plan (PPP). The PPP is also required to contain the specific measures used, the timing of, and the process used to evaluate the MPO's outreach and PPP strategies. Ideally, once the LRTP is developed, the outreach is evaluated, and then any needed changes to the outreach process are incorporated and documented in the PPP prior to the next LRTP update. {23 CFR 450.316(a)(1)(x)}

Fiscal Constraint

Project Phases: Projects in LRTPs are required to be described in enough detail to develop cost estimates in the LRTP financial plan that show how the projects will be implemented. For a project in the cost feasible plan, the phase(s) being funded and the cost must be documented. Additionally, the source of funding for each phase must be documented in the first 10 years of the LRTP. The phases to be shown in LRTPs include Preliminary Engineering (PE), Right of Way (ROW) and Construction. PE includes both the Project Development and Environment (PD&E) and Design phases. FHWA and FTA support the option of combining the PD&E and Design phases into an overall PE phase for these long range estimates. Boxed funds can be utilized as appropriate to document the financing of smaller projects, such as sidewalks, or early phases of projects, such as PD&E. However, the individual projects utilizing the box need to be listed, or at a minimum, sufficiently described in bulk in the LRTP (i.e. PD&E for projects in Years 2020-2025). {23 CFR 450.324(f)(9), (f)(11); 23 CFR 450.326(h)}

Full Time Span of LRTP (1st 5 Years): Plans are required to have at least a 20-year horizon. The effective date of the LRTP is the date of the MPO adoption of the plan. As such, the MPO is required to have an LRTP that includes projects from the date of adoption projected out at least 20 years from that date. The LRTP is a planning document that describes how the proposed projects will help achieve the regional vision. The Transportation Improvement Program (TIP), however, is a reflection of the investment priorities which are established in the LRTP. When adopting an updated LRTP, the projects in the previous LRTP are assessed and revised to acknowledge projects that have: 1) moved forward (these are typically removed from the updated LRTP), 2) shifted in time (these could be moved forward or back in implementation in the updated LRTP), and 3) been added or deleted based on the MPO's current priorities. The TIP is only a resource for determining which projects have moved forward. **The TIP, which is based on the previous LRTP, is not a substitute for the first 5 years of the updated LRTP.** Additionally, the TIP is a 4-year programming document that, in Florida, is adopted every year and thus expires annually. When LRTPs "include the TIP", it is a reference to a static and outdated document once the next TIP is incorporated into the Statewide Transportation Improvement Program (STIP), which occurs annually in Florida Therefore, the MPOs will need to show all of the projects, phases, and

estimates from the adoption date through the horizon year of the LRTP, which is considered the entire time period of the LRTP. In addition, funding sources need to be shown for all projects from the adoption date through the first 10 years. {23 CFR 450.324(a); 23 CFR 450.326(a)}

Technical Topics

SHSP Consistency: We have come a long way from “What is the Strategic Highway Safety Plan (SHSP)?” to having LRTPs address the safety of all users throughout the planning process. We have proactively and successfully encouraged the MPOs to include a safety element in their LRTPs and be consistent with the Florida SHSP. The changes to the planning regulations now require the goals, objectives, performance measures and targets of the Highway Safety Improvement Program (HSIP), which includes the SHSP, to be integrated into the LRTPs either directly or by reference. However, the specific priorities, strategies, countermeasures and projects of the HSIP are not required to be integrated. We continue to strongly encourage their incorporation where appropriate. {23 CFR 450.306(b)(2), (d)(4)(ii); 23 CFR 324(h)}

The link to FDOT’s 2016 SHSP is: http://www.fdot.gov/safety/SHSP2012/FDOT_2016SHSP_Final.pdf

Freight: Florida’s MPOs have been proactive in assessing and incorporating their freight needs. Freight shippers and providers of freight transportation services have been required to be incorporated into the stakeholder outreach that the MPO uses throughout the planning process and the LRTP to address the projected demand of goods transportation on the network. Changes to the planning requirements now also encourage the consultation of agencies and officials planning for freight movements. With the National Highway Freight Program a core funding category of federal funds, having a solid basis for incorporating freight needs and projecting the freight demands will be key to the LRTP’s success for meeting its regional vision for the goods movement throughout the area. Additionally, the planning regulations now require the goals, objectives performance measures and targets of the State Freight Plan to be integrated into the LRTPs either directly or by reference. While freight is one of the planning factors, it deserves special emphasis, and will need to play a more prominent role in future LRTPs. The MPOs need to show a concerted effort to incorporate freight stakeholders and strategies into the next LRTP. {23 CFR 450.306(b)(4), (b)(6); 23 CFR 450.316(a); 23 CFR 450.324 (b), (f)(1), (f)(5)}

Environmental Mitigation/Consultation: For highway projects, the LRTP must include a discussion on the types of potential environmental mitigation activities and potential areas to carry out these activities. The environmental mitigation discussion in the LRTP must be developed in consultation with Federal, State and Tribal wildlife, land management and regulatory agencies. The LRTP discussion can be at a system-wide level to identify areas where mitigation may be undertaken (perhaps illustrated on a map) and what kinds of mitigation strategies, policies and/or programs may be used when these environmental areas are affected by projects in the LRTP. This discussion in the LRTP would identify broader environmental mitigation needs and opportunities that individual transportation projects might take advantage of later. MPOs should be aware that the use of ETDM alone is not environmental mitigation. The use of ETDM is considered project screening and is not a system-wide review of the planning area. Documentation of the consultation with the relevant agencies should be maintained by the MPO. {23 CFR 450.324(f)(10)}

Congestion Management Process: The management of congestion has played an increasing role in the operations of transportation networks. One of the key activities of the process is to evaluate the effectiveness of the strategies the process produces. The MPO must demonstrate that the congestion management process is incorporated into the planning process. The process the MPO uses can be documented separately or in conjunction with the LRTP. The process is required to: 1) provide for the safe and effective integrated management and operations of the transportation network; 2) identify the acceptable level of performance; 3) identify methods to monitor and evaluate performance; 4) define objectives; 5) establish a coordinated data collection program; 6) identify and evaluate strategy benefits; 7) identify an implementation schedule; and 8) periodically assess the effectiveness of the strategies. The congestion management process should result in multimodal system measures and strategies that are reflected in the LRTP and TIP. The new planning requirements provide for the optional development of a Congestion Management Plan (CMP) that includes projects and strategies that will be considered in the TIP. This optional plan is different than documenting the processes that the MPO uses to address the congestion management. The CMP, if used, needs to 1) develop regional goals, 2) identify existing transportation services and commuter programs, 3) identify proposed projects, and 4) be developed in consultation with entities that provide job access reverse commute or job-related services to low-income individuals. {23 CFR 450.322}

Americans with Disabilities Act (ADA) Transition Plans: Government agencies with 50 or more employees that have control over pedestrian rights of way (PROW) must have transition plans for ADA. Agencies with less than 50 employees that have control over PROW must have an ADA Program Access Plan, describing how they provide access for those with disabilities to programs, services and activities. MPOs that are a part of a public agency that has these responsibilities need to have a heightened awareness for these responsibilities and plans. However, all MPOs play an important role in ADA compliance by assisting agencies with sidewalk inventories, gap studies, etc. MPOs can also go a good deal further, but should at a minimum serve as a resource for information and technical assistance in local government compliance with ADA. {28 CFR 35.105; 28 CFR 35.150(d)}

Administrative Topics

LRTP Documentation/Final Board Approval: The date the MPO Board adopts the LRTP is the effective date of the plan. The contents of the product that the MPO adopts on that date includes at a minimum: 1) the current and projected demand of persons and goods; 2) existing and proposed facilities that serve transportation functions; 3) a description of performance measures and targets; 4) a system performance report; 5) operational and management strategies; 6) consideration of the results of the congestion management process; 7) assessment of capital investment and other strategies to preserve existing and future infrastructure; 8) transportation and transit enhancement activities; 9) description of proposed improvements in sufficient detail to develop cost estimates; 10) discussion of potential environmental mitigation strategies and areas to carry out the activities; 11) a cost feasible financial plan that demonstrates how the proposed projects can be implemented and includes system level operation and maintenance revenues and costs; and 12) pedestrian walkway and bicycle transportation facilities which are required to be considered, where appropriate, in conjunction with all new construction and reconstruction of transportation facilities, except where bicycle and pedestrian use are not permitted. FHWA and FTA expect that at the time the MPO Board adopts the LRTP, a

substantial amount of LRTP analysis and documentation will have been completed, and all final documentation will be available for distribution no later than 90 days after the plan's adoption. The Board and its advisory committees, as well as the public, should have periodically had opportunities to review and comment on products from interim tasks and reports that culminated into what is referred to as the final Plan. Finalizing the LRTP and its supporting documentation is the last activity in a lengthy process. All final documents are required to be made readily available for public review and to be made available electronically. The final document(s) should be posted online and available through the MPO office no later than 90 days after adoption date. The MPOs' schedules for this round of LRTP development are expected to allow ample time for the Board to adopt the final LRTP product no later than 5 years from the MPOs' adoption of the previous LRTP. These adoption dates have recently been confirmed with each MPO. {23 CFR 450.324 (a), (c), (f), (k)}

LRTP & STIP/TIP Consistency: The STIP and TIPs must be consistent with the relevant LRTPs as they are developed. FHWA and FTA staff will be checking for this consistency during the STIP approval process. The results of previous reviews indicate that emphasis is still needed to ensure that projects are accurately reflected in both the TIP and STIP and that these projects are flowing from and are found to be consistent with the MPO's LRTP. Additionally, when amendments to the STIP/TIP are made, the projects must also be consistent with the LRTP from which they are derived. When STIP/TIP amendments are received by FHWA and FTA, they will be reviewed for consistency with the applicable LRTP. Projects with inconsistencies between the STIP/TIP and the respective LRTP will not be approved for use of federal funds or federal action until the issue is addressed. {23 CFR 450.330; 23 CFR 450.218(b)}.

New Requirements

This section describes topics that may not currently be required by federal laws and rules to be addressed in LRTPs. As such, MPOs are not required to include these considerations in their current planning processes and plans. However, they will be required to be addressed for the next LRTP.

New Planning Factors: The MPO is required to address several planning factors as a part of its planning processes. The degree of consideration and analysis of the factors should be based on the scale and complexity of the area's issues and will vary depending on the unique conditions of the area. Efforts should be made to think through and carefully consider how to address each factor. There are two new planning factors that need to be considered in the next LRTPs: 1) improving the resiliency and reliability of the transportation system and reducing or mitigating stormwater impacts of surface transportation; and 2) enhancing travel and tourism. Florida has a strong history of proactively addressing these transportation areas. These experiences can be drawn upon to incorporate the new factors into the planning processes. {23 CFR 450.306(b)9, (b)(10), (c)}

Transportation Performance Management: As funding for transportation capacity projects becomes more limited, increasing emphasis will be placed on maximizing the efficiency and effectiveness of our current transportation system and the resources that build and maintain the system. As such, a performance-based approach to transportation decision making will be required for the FDOT and MPOs. As the MPOs and FDOT are aware, the performance measures required to be addressed in the LRTPs are documented in final rules that were published in the Federal Register on March 15, 2016 and January 18, 2017. The MPOs will set their targets

in accordance with the schedule established in these final rules. FDOT and the MPOs have flexibility as to the documentation and process used for setting the targets, as long as the targets are made publicly available once they are set. The next LRTPs (when updated or amended after May 27, 2018) will be required to describe the performance measures and the targets the MPO has selected for assessing the performance of the transportation system.

A system performance report will also be required to be included in the LRTPs. The report is a tool that evaluates and updates the condition of the transportation system in relation to the performance measures and targets. While guidance is still being developed, the report would include for each performance measure information such as: the target set; the baseline condition at the start of the evaluation cycle; the progress achieved in meeting the targets; and a trend-type comparison of progress with previous performance reports. Depending on the timing of the LRTP, the date of the target setting, and length of the evaluation cycle, the LRTPs initially amended/updated after May 27, 2018 may not have a full cycle of specific information to include. However, the LRTPs need to include the data that is available and discuss how the MPO plans to use the full information once it does become available. We recognize that these initial LRTPs will be developed during a transition period, and commit to working with the MPOs to ensure that the regulations are reasonably being addressed. {23 CFR 450.306(d)(4); 23 CFR 450.324(f)(3), (f)(4)}

For more TPM information and the tools tailored for Florida partners, please go to:

<https://www.fhwa.dot.gov/fldiv/tpm.cfm>

Multimodal Feasibility: The transportation plan shall include both long-range and short-range strategies/actions that provide for the development of an integrated multimodal transportation system (including accessible pedestrian walkways and bicycle transportation facilities) to facilitate the safe and efficient movement of people and goods in addressing current and future transportation demand. {23 CFR 450.324}

Transit Asset Management: The MPO is required to set performance targets for each performance measure, per 23 CFR 450.306(d). Those performance targets must be established 180 days after the transit agency established their performance targets. Transit agencies are required to set their performance targets by January 1, 2017. If there are multiple asset classes offered in the metropolitan planning area, the MPO should set targets for each asset class. Planning for TAM/Roles and Responsibilities for MPOs and State DOTs can be found on the FTA website: <https://cms.fta.dot.gov/sites/fta.dot.gov/files/planning-tam-fact-sheet.pdf>

Emerging Issues

This section describes topics that may not currently be required by federal laws and rules to be addressed in LRTPs. As such, MPOs are not required to include these considerations in their current planning processes and plans. These issues are receiving considerable attention in national discussions. Each MPO has the discretion to determine whether to address these emerging topics in their LRTP at this time and the appropriate level of detail. Beginning to address these issues early on may potentially minimize the level of effort needed to achieve future compliance.

Mobility on Demand (MOD): Mobility on Demand (MOD) is an innovative, user-focused approach which leverages emerging mobility services, integrated transit networks and operations, real-time data, connected travelers, and cooperative Intelligent Transportation Systems (ITS) to allow for a more traveler-centric, transportation system- of-systems approach, providing improved mobility options to all travelers and users of the system in an efficient and safe manner. Automated vehicles (AV), now being called Automated Driving Systems (ADS) and Connected Vehicles (CV) are two components of the overall MOD model.

ADS (also known as self-driving, driverless, or robotic) are vehicles in which some aspect of vehicle control is automated by the car. For example, adaptive cruise control, where the vehicle automatically speeds up, slows down, or stops in response to other vehicle movements in the traffic stream is an automated vehicle function. Connectivity is an important input to realizing the full potential benefits and broad-scale implementation of automated vehicles. The preliminary five-part formal classification system for ADS is:

- Level 0: The human driver is in complete control of all functions of the car.
- Level 1: A single vehicle function is automated.
- Level 2: More than one function is automated at the same time (e.g., steering and acceleration), but the driver must remain constantly attentive.
- Level 3: The driving functions are sufficiently automated that the driver can safely engage in other activities.
- Level 4: The car can drive itself without a human driver

CV includes technology that will enable cars, buses, trucks, trains, roads and other infrastructure, and our smartphones and other devices to “talk” to one another. Cars on the highway, for example, would use short-range radio signals to communicate with each other so every vehicle on the road would be aware of where other nearby vehicles are. Drivers would receive notifications and alerts of dangerous situations, such as someone about to run a red light as they’re nearing an intersection or an oncoming car, out of sight beyond a curve, swerving into their lane to avoid an object on the road.

Rapid advances in technology mean that these types of systems may be coming on line during the horizon of the next LRTPs. While these technologies when fully implemented will provide more opportunities to operate the transportation system better, the infrastructure needed to do so and the transition time for implementation is an area that the MPO can start to address in this next round of LRTP updates.

Resources for additional information:

Mobility on Demand: <https://www.its.dot.gov/factsheets/pdf/MobilityonDemand.pdf>

Autonomous Vehicles: https://www.its.dot.gov/research_areas/pdf/WhitePaper_automation.pdf

Connected Vehicles: https://www.its.dot.gov/cv_basics/index.htm

Transportation Planning Capacity Building Connected Vehicle Focus Area:

https://planning.dot.gov/focus_connectedVehicle.asp

Proactive Improvements

This section describes topics that are not currently required by federal laws and rules to be addressed in LRTPs nor are they required by the May 27, 2016 regulation changes. As such, MPOs are not required to include these considerations in their current planning processes and plans. These areas are intended to be a proactive change in the LRTPs to help Florida continue to make positive strides in long range planning.

New Consultation: There are two new types of agencies that the MPO should consult with when developing the LRTPs: agencies that are responsible for tourism and those that are responsible for natural disaster risk reduction. These consultations are a natural evolution of implementing the new planning factors for which Florida has experience in doing. {23 CFR 450.316(b)}

Summary of Public Involvement Strategies: Seeking out and considering the needs of traditionally underserved populations is a key part of any public involvement process. When the MPO carries out stakeholder involvement, they may use a variety of strategies. These strategies ultimately demonstrate that their planning process is consistent with Title VI and other federal anti-discrimination provisions in the development of the LRTP. In order to clearly demonstrate this consistency, the MPOs should summarize the outreach information. This information should be derived from the MPO's public involvement plan elements. The public involvement summary should be supported by more detailed information, such as the specific strategies used, feedback received and feedback responses, findings, etc. The detailed information should then be referenced and included in the form of a technical memorandum or report that can be appended to the LRTP, or included in a separate, standalone document that is also available for public review in support of the LRTP. {23 CFR 450.316(a)(1)(vii)}

Impact Analysis/Data Validation: In accordance with Title VI, MPOs need to have and document a proactive, effective public involvement process that includes outreach to low income, minorities and traditionally underserved populations, as well as all other citizens of the metropolitan area, throughout the transportation planning process. Using this process, the LRTP needs to document the overall transportation needs of the metropolitan area and be able to demonstrate how public feedback and input helped shape the resulting plan. Where some MPOs struggle in using data to assess likely impacts, other MPOs attempt to use data to assess the needs. Some look at a dollar spread among minority/non-minority areas to determine equity. This approach is probably not the best method to use, since higher dollar amounts might indicate capacity projects when the community needs more pedestrian connectivity, for example. We suggest using the data tools found at https://www.fhwa.dot.gov/environment/environmental_justice/resources/data_tools/. Additionally, as time passes it becomes more important to validate the 2010 census data being used. School Boards, emergency service agencies, tax rolls and staff knowledge are all good sources to ensure data quality. {23 CFR 450.316(a)(1)(vii); 23 CFR 420.324(e)}

FDOT Revenue Forecast: To help stakeholders understand the financial information and analysis that goes into identifying the revenues for the MPO, we recommend the MPO include FDOT's Revenue Forecast in the appendices that support the LRTP. {23 CFR 450.324(f)(11)(ii)}

Sustainability and Livability in Context: We encourage the MPO to implement strategies that contribute to comprehensive livability programs and advance projects with multimodal connectivity. MPO policies and practices that support an integrated surface transportation system for all users that is efficient, equitable, safe, and environmentally sustainable will improve transportation choices and connectivity for all users especially those walking and bicycling. Building partnerships with traditional and nontraditional stakeholders will facilitate the development and implementation of transportation projects that improve integration, connectivity, accessibility, safety and convenience for all users. The MPOs are encouraged to identify and suggest contextual solutions for appropriate transportation corridors within their area and utilize the flexibilities provided in the federal funding programs to improve the transportation network for all users. {23 CFR 450.306(b)}

Scenario Planning: The new planning requirements describe using multiple scenarios for consideration by the MPO in the development of the LRTP. If the MPO chooses to develop these scenarios, they are encouraged to consider a number of factors including potential regional investment strategies, assumed distribution of population and employment, a scenario that maintains baseline conditions for identified performance measures, a scenario that improves the baseline conditions, revenue constrained scenarios, and include estimated costs and potential revenue available to support each scenario. {23 CFR 450.324(i)}

EXECUTIVE SUMMARY

Draft Narrative and Project Sheets for FY2019-2023 Transportation Improvement Program

OBJECTIVE: For the Board to receive a presentation on the Draft Narrative and Project Sheets for the FY2019-2023 Transportation Improvement Program (TIP).

CONSIDERATIONS: The purpose of the presentation is to provide the Board an early look at the new, draft FY2019-2023 TIP, as several Board members had requested.

This year's TIP has been produced in-house and has a different look to the project sheets than previous years. This was done in response to the vendor's inability or unwillingness to acknowledge and resolve several production glitches that occurred last year, resulting in an inordinate amount of staff time spent resolving numerous inconsistencies between the FDOT work program and the vendor's output. Customer service was poor the prior year also.

Developing the draft TIP in-house has saved the MPO \$10,000 in consulting fees and considerable staff time. Staff has been able to improve on the quality of the project location maps while retaining the general layout and informational content of the project sheets.

The project sheets are currently arranged in the same order as the FDOT Tentative Work Program for ease of comparison between the two. They will be presented in a more familiar arrangement in the final version.

COMMITTEE RECOMMENDATIONS: The Technical Advisory Committee (TAC) and Citizens Advisory Committee (CAC) received a presentation on the draft TIP at their meetings on February 26th. Action was not taken. The committees will have another opportunity to review and comment on the TIP at their March 26 meetings.

FDOT is expected to release a final snapshot of the Work Program the week the MPO Board meeting packet is produced. Staff anticipates the final snapshot will require a limited number of changes to the draft.

STAFF RECOMMENDATION: That the Board receive a presentation on the Draft Narrative and Project Sheets for the FY2019-2023 Transportation Improvement Program (TIP).

Prepared By: Anne McLaughlin, MPO Director

ATTACHMENT(S)

1. Draft TIP Narrative (PDF)
2. Draft TIP Project Sheets(PDF)

03/09/2018

COLLIER COUNTY
Metropolitan Planning Organization

Item Number: 11.E**Doc ID:** 4991**Item Summary:** Draft Narrative and Project Sheets for FY2019-2023 Transportation Improvement Program**Meeting Date:** 03/09/2018**Prepared by:**

Title: Planner, Senior – Metropolitan Planning Organization

Name: Brandy Otero

03/01/2018 11:02 AM

Submitted by:

Title: Executive Director - MPO – Metropolitan Planning Organization

Name: Anne McLaughlin

03/01/2018 11:02 AM

Approved By:**Review:**

Metropolitan Planning Organization	Brandy Otero	MPO Analyst Review	Completed	03/01/2018 11:03 AM
Metropolitan Planning Organization	Anne McLaughlin	MPO Executive Director Review	Completed	03/01/2018 12:37 PM
Metropolitan Planning Organization	Anne McLaughlin	Meeting Pending		03/09/2018 9:00 AM



COLLIER METROPOLITAN PLANNING ORGANIZATION

TRANSPORTATION IMPROVEMENT PROGRAM FY2019 - FY2023

DRAFT

MPO Board and Advisory Committee Review Draft

Adoption Date: Pending in June 2018



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COLLIER METROPOLITAN PLANNING ORGANIZATION

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Collier County (District 4)

Commissioner Penny Taylor, MPO Vice-Chair
Collier County (District 5)

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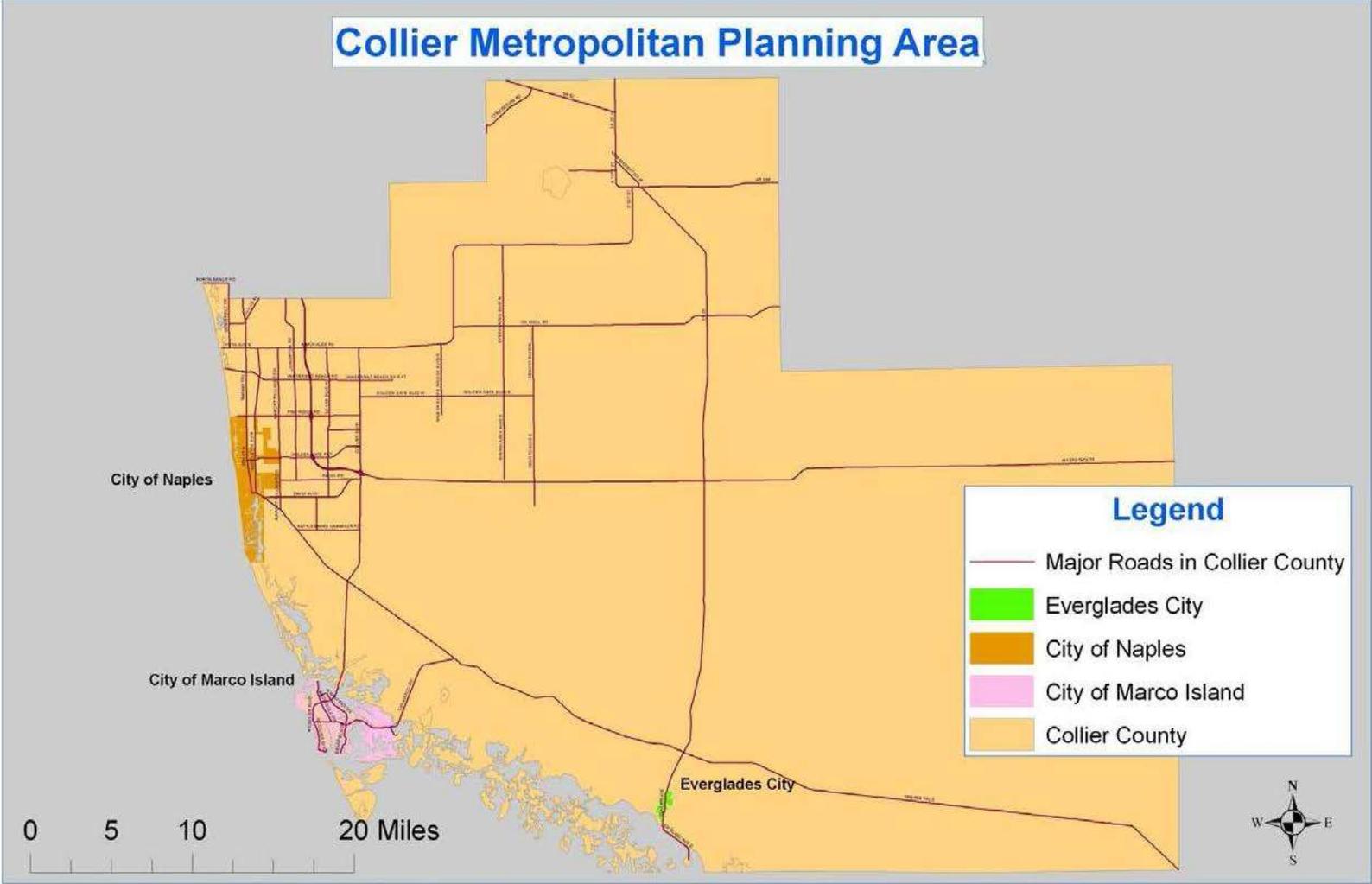
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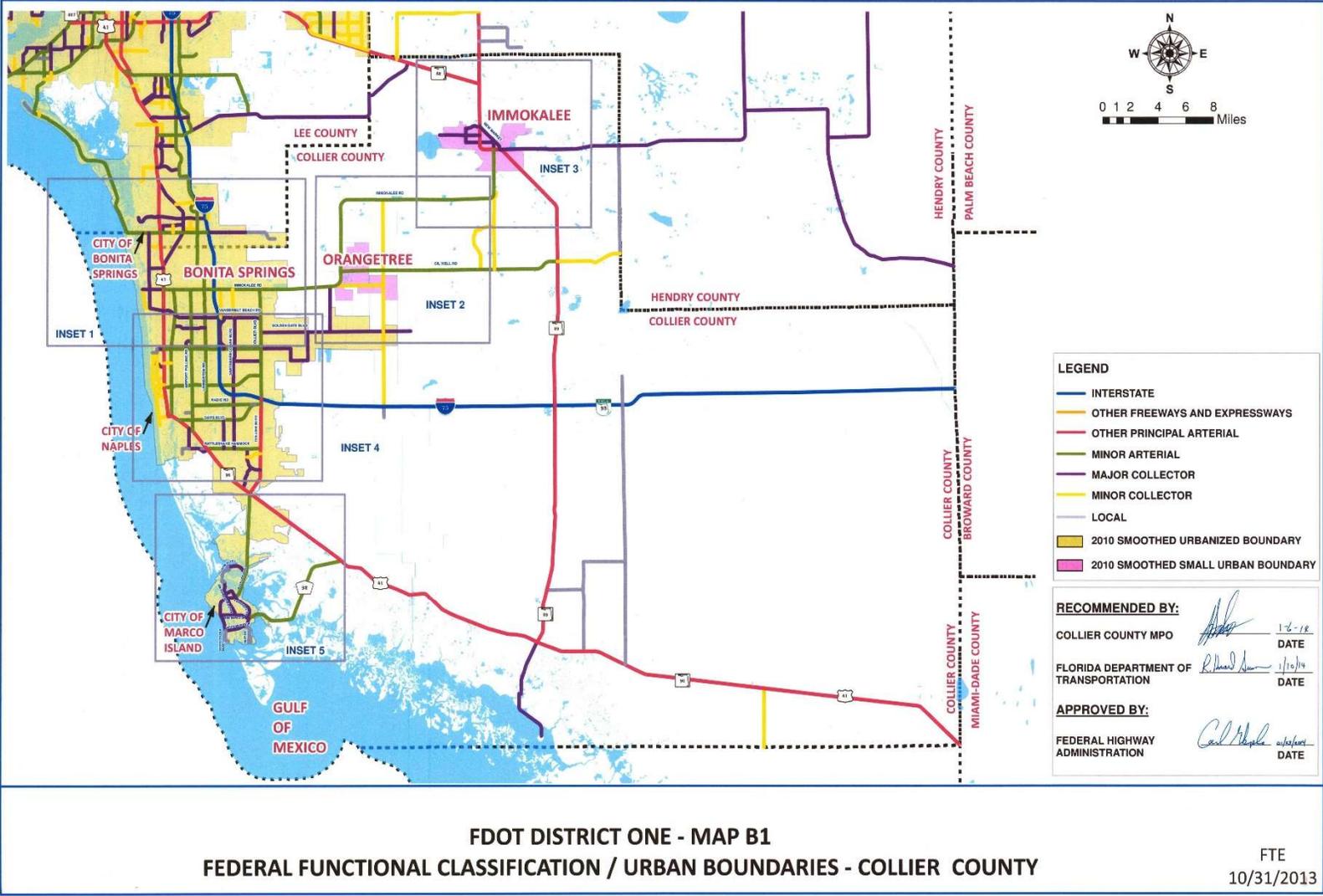
INSERT NEW MPO BOARD RESOLUTION PENDING JUNE 2018 BOARD MEETING

Figure 1 - Collier Metropolitan Planning Area



Attachment: Draft TIP Narrative (4991) : Draft Narrative and Project Sheets for FY2019-2023 Transportation

Figure 2 – Bonita Springs – Naples Urbanized Area Map



Attachment: Draft TIP Narrative (4991) : Draft Narrative and Project Sheets for FY2019-2023 Transportation

NARRATIVE

PURPOSE

The Collier Metropolitan Planning Organization (MPO) is required by Title 23 United States Code (U.S.C.) 134(j); Florida State Statutes; and Federal Transportation Legislation, Moving Ahead for Progress in the Twenty-First Century Act (MAP-21) and the Fixing America’s Surface Transportation Act (FAST Act) signed into law in December 2015, to develop a Transportation Improvement Program (TIP) that is approved by both the MPO and the Governor of Florida (or the Governor’s delegate). The FAST Act (23 U.S.C. 117 §1105) carries forward policies initiated by MAP-21, which created a streamlined and performance-based surface transportation program that builds on many of the highway, transit, bike, and pedestrian programs and policies established in previous transportation legislation. These programs address the many challenges facing the U.S. transportation system including: improving safety, maintaining infrastructure condition, reducing traffic congestion, improving efficiency of the system and of freight movement, protecting the environment, and reducing delays in project delivery. The FAST Act added reducing or mitigating storm water impacts of surface transportation, and enhancing travel and tourism to the nationwide transportation goals identified in MAP-21. The FAST Act establishes the Nationally Significant Freight and Highway Projects (NSFHP) program to provide competitive grants – Fostering Advancement in Shipping and Transportation for the Long-term Achievement of National Efficiencies (FASTLANE) – to nationally and regionally significant freight and highway projects that align with national transportation goals.

The TIP is developed by the MPO in cooperation with the Florida Department of Transportation (FDOT), state and local governments, and public transit operators who are each responsible for providing the MPO with estimates of available federal and state funds. This collaborative effort ensures that projects programmed in the FDOT Work Program address the MPO’s highest transportation project priorities, and are consistent with the overall transportation goals of the surrounding metropolitan area. Following approval by the MPO Board and the Governor of Florida, the TIP is included in the FDOT State Transportation Improvement Program (STIP). The TIP is a five-year, fiscally constrained, multi-modal program of transportation projects within the Collier Metropolitan Planning Area (MPA). The MPA is the geographic planning region for the MPO (see Figure 1 above). The projects in the TIP are presented in Year of Expenditure (YOE) dollars which takes inflation into account (Expenditures prior to 2016 are reported in nominal dollars.). TIP projects include highway, transit, sidewalk/bicycle paths and/or facilities, congestion management, road and bridge maintenance, transportation planning, and transportation alternative program activities to be funded by 23 C.F.R. 450.324(c). The TIP also includes aviation projects; and all regionally significant transportation projects for which Federal Highway Administration (FHWA) or Federal Transit Administration (FTA) approval is required. For informational purposes, this TIP also identifies other transportation projects, as defined in 40 CFR 450.324 (c)(d), that are not funded with federal funds.

The TIP for the Collier MPO is financially constrained by year so that financial resources can be directed towards high priority transportation needs in the area. Consequently, the level of authorized funding (both current and projected) available to the state and the MPO is used as the basis for financial restraint and scheduling of federally funded projects within the MPO’s jurisdiction. FDOT uses the latest project cost estimates, and the latest projected revenues based on a district-wide statutory formula to implement projects within the Collier MPO in the Work Program, and this is reflected in the TIP as well. This TIP is also constrained due to local funds from local governments’ Capital Improvement Programs committed to certain projects in the TIP. This TIP has been developed in cooperation with the FDOT. FDOT provided the MPO with estimates of available federal and state funds, as shown in the Table on the following page. The TIP is updated annually by adding a “new fifth year” which maintains a five-year rolling timeframe for the TIP. In addition to carrying forward existing projects, the MPO annually approves a set of new Transportation Project Priorities and submits these to FDOT prior to July 1st. This new set of priorities, which may be eligible for funding in the following year, is drawn from the Collier 2040 Long Range Transportation Plan (LRTP). Projects are selected based on their potential to improve transportation safety and/or performance; increase capacity or relieve congestion; and preserve existing infrastructure. FDOT uses, in part, the MPO’s priorities in developing the new fifth year of the FDOT Five-Year Work Program which is also a rolling five-year program. The TIP is developed with consideration of the ten planning factors from MAP-21 and the FAST Act which are listed below.

1. Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency.
2. Increase the safety of the transportation system for motorized and non-motorized users.
3. Increase the security of the transportation system for the motorized and non-motorized users.
4. Increase the accessibility and mobility of people and for freight.
5. Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns.
6. Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight.
7. Promote efficient system management and operation.
8. Emphasize the preservation of the existing transportation system.
9. Reduce or mitigate storm water impacts of surface transportation
10. Enhance travel and tourism.

Figure 3 - FY 2019 – FY2023 TIP Funding Estimates Provided by FDOT (chart to be updated for March 2018 snapshot)

Effective Date: 03/08/2017 Florida Department of Transportation Run: 03/24/2017 14.51.41
5 Year TIP - Fund Summary
 DISTRICT 1

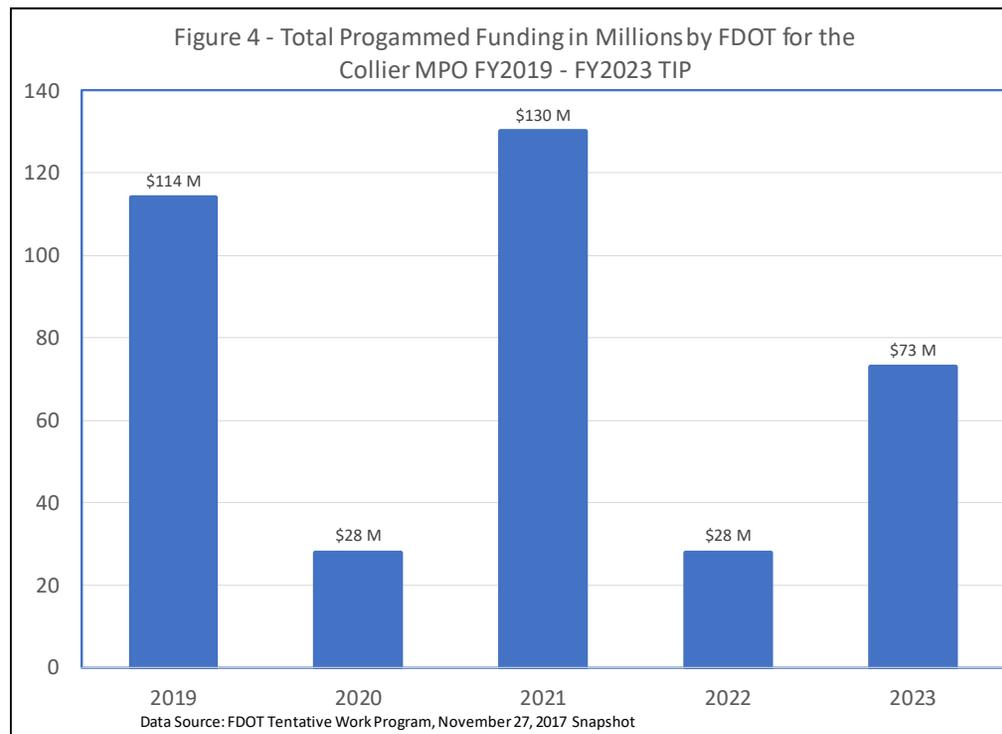
Fund	Fund Name	<2018	2018	2019	2020	2021	2022	>2022	All Years
	TOTAL OUTSIDE YEARS	58,143,316	0	0	0	0	0	0	58,143,316
ACNP	ADVANCE CONSTRUCTION NHPP	0	0	0	400,000	4,799,461	0	9,411,609	14,611,070
ACSU	ADVANCE CONSTRUCTION (SU)	139,232	0	0	0	0	0	0	139,232
ACTU	ADVANCE CONSTRUCTION TALU	224,700	0	0	0	0	0	0	224,700
BRRP	STATE BRIDGE REPAIR & REHAB	27,399	0	0	110,000	1,412,092	1,942,775	0	3,492,266
CIGP	COUNTY INCENTIVE GRANT PROGRAM	0	0	0	0	1,500,000	0	0	1,500,000
D	UNRESTRICTED STATE PRIMARY	7,376,378	1,839,759	1,838,576	488,524	503,179	0	0	12,046,416
DDR	DISTRICT DEDICATED REVENUE	13,561,785	6,411,223	26,030,128	4,692,528	7,452,208	465,775	1,250,000	59,863,647
DI	ST. - SW INTER/INTRASTATE HWY	0	5,046,845	36,678,009	0	74,926,119	0	71,737,884	188,388,857
DIH	STATE IN-HOUSE PRODUCT SUPPORT	993,361	20,405	1,534,160	189,675	506,714	145,947	4,223,860	7,614,122
DPTO	STATE - PTO	5,600,509	905,025	1,414,592	981,132	1,029,860	1,080,859	0	11,011,977
DS	STATE PRIMARY HIGHWAYS & PTO	5,608,342	210,860	2,559,705	225,150	7,086,284	81,000	0	15,771,341
DSB2	EVERGLADES PKY/ALLIGATOR ALLEY	6,834,617	4,317,797	0	0	0	0	0	11,152,414
DU	STATE PRIMARY/FEDERAL REIMB	4,110,384	371,096	371,096	482,260	445,470	443,232	0	6,223,538
FAA	FEDERAL AVIATION ADMIN	508,747	1,440,000	0	0	0	0	0	1,948,747
FTA	FEDERAL TRANSIT ADMINISTRATION	26,557,717	3,600,749	3,600,749	3,253,555	3,195,751	3,042,886	0	43,251,407
FTAT	FHWA TRANSFER TO FTA (NON-BUD)	0	590,250	545,068	51,600	0	286,180	0	1,473,098
GMR	GROWTH MANAGEMENT FOR SIS	1,799,608	0	0	0	0	0	0	1,799,608
HSP	SAFETY (HIWAY SAFETY PROGRAM)	10,000	100,806	0	0	0	0	0	110,806
IMD	INTERSTATE MAINTENANCE DISCRET	204,989	0	0	0	0	0	0	204,989
LF	LOCAL FUNDS	19,058,957	2,987,770	4,442,337	3,599,744	5,820,258	2,280,353	500,000	38,689,419
LFP	LOCAL FUNDS FOR PARTICIPATING	228,587	221,243	0	105,146	0	0	0	554,976
PL	METRO PLAN (85% FA; 15% OTHER)	762,166	531,670	539,006	547,129	547,129	547,129	0	3,474,229
SA	STP, ANY AREA	0	60,323	5,240,475	7,215,823	0	142,349	0	12,658,970
SIWR	2015 SB2514A-STRATEGIC INT SYS	0	0	0	0	0	0	1,326,169	1,326,169
SU	STP, URBAN AREAS >200K	736,073	4,504,851	4,691,363	4,886,891	4,888,799	4,888,799	0	24,596,776
TALT	TRANSPORTATION ALTS- ANY AREA	51,528	17,263	951,015	50,000	0	180,054	0	1,249,860
TALU	TRANSPORTATION ALTS- >200K	113,533	392,255	392,202	185,000	45,311	394,992	0	1,523,293
T CSP	TRANS, COMMUNITY & SYSTEM PRES	754,574	0	0	0	0	0	0	754,574
TOU2	EVERGLADES PARKWAY	55,787,956	5,619,860	5,659,750	5,660,000	5,660,000	5,660,000	12,700,000	96,747,566
Grand Total		209,194,458	39,190,050	96,488,231	33,124,157	119,818,635	21,582,330	101,149,522	620,547,383

Attachment: Draft TIP Narrative (4991) : Draft Narrative and Project Sheets for FY2019-2023 Transportation

FISCAL CONSTRAINT PAGE HERE

FUNDING SOURCES

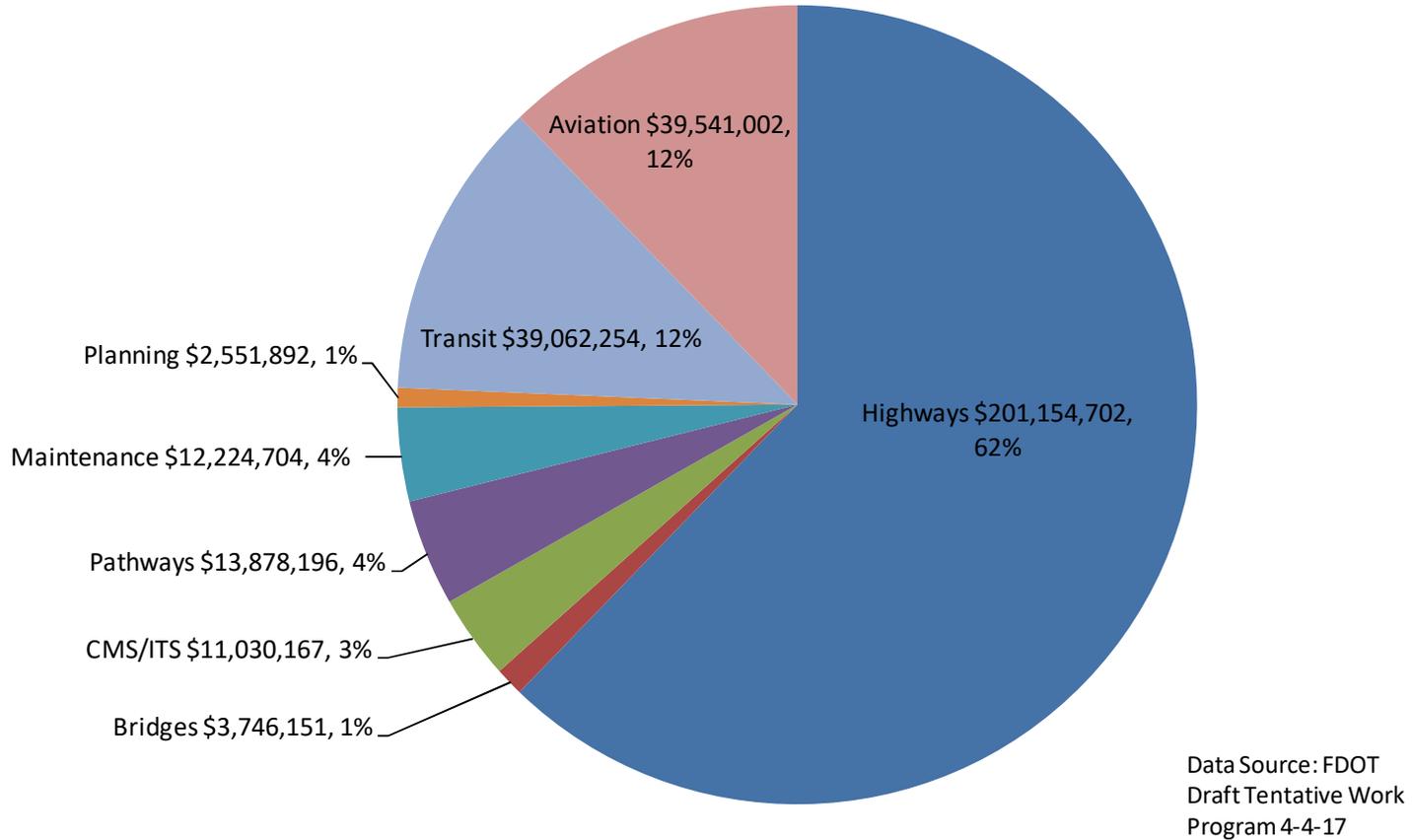
The projects identified in this TIP are funded with Federal, State, and local revenues. The FDOT Fiscal Year (FY) 2019 – FY2023 Tentative Work Program (November 27, 2017 Snapshot), which will be formally adopted on July 1, 2018, specifies revenue sources for each project. Figure 4 and Figure 5 illustrate the Collier MPO TIP’s total funding by year and total funding by mode. The total funding fluctuates from one fiscal year to another based on the phases that projects are in and the size and number of projects programmed in that year. Total funding for this TIP is \$372 million, an increase of \$49 million (15%) when compared to the FY2017 - FY2021 TIP.¹



¹ The actual total programmed amount is \$372,474,088; due to rounding error the programmed amount in Figure 3 is \$373 million.

Figure 5 chart will be redone to reflect March 2018 final snapshot

Figure 4 - Dollars (in Millions) Programmed by Mode by FDOT for the Collier MPO FY 2018 - FY 2022 Transportation Improvement Program (TIP)



HIGHWAY FUNDING SOURCES

Surface Transportation Program (STP): The STP provides legislatively specified flexible funding that may be used by states and localities for projects on any Federal-aid eligible highway including the National Highway System (NHS), bridge projects on any public road, transit capital projects, and intra-city and inter-city bus terminals and facilities. These flexible funds are not based on a restrictive definition of program eligibility and allow local areas to choose local planning priorities. There are also flexible FTA Urban Formula Funds. STP funds can be used to increase capacity, improve safety, relieve congestion and enhance transportation systems. The level of STP funding is determined by a formula.



Strategic Intermodal System (SIS): Created in 2003, the SIS is a high-priority network of transportation facilities critical to Florida’s economic competitiveness and quality of life. The SIS includes the State’s largest and most significant highways, commercial service airports, spaceports, waterways and deep water seaports, rail corridors, freight rail terminals, and passenger rail and intercity bus terminals. Currently, I-75 is the only SIS facility in Collier County, however State Route 29 and State Route 82 have both been identified as highway corridors that are part of an emerging SIS network and may be designated as SIS facilities in the future. The Collier and Lee County MPOs jointly adopt regional priority lists to access SIS funds.

in regionally significant transportation facilities including both roads and public transportation. TRIP funds provide state matching funds for improvements identified and prioritized by regional partners which meet certain criteria. TRIP funds are used to match local or regional funds by providing up to 50% of the total project cost for public transportation projects. In-kind matches such as right-of-way donations and private funds made available to the regional partners are also allowed. The Collier MPO and Lee County MPO Boards jointly adopt regional priorities to access TRIP funds.

Transportation Regional Incentive Program (TRIP): The TRIP was created pursuant to §339.2819 and §339.155 Florida Statutes to provide an incentive for regional cooperation to leverage investments

Regional Projects: Regionally significant projects are projects that are located on the regional network (see Appendix B).

FDOT may program State dedicated revenues to fund prioritized regionally significant projects.

Transportation Alternatives Program (TAP): The TAP was established by MAP-21 as a new funding program pursuant to 23 U.S.C. 213(b). Eligible activities under TAP include:

1. Transportation Alternatives as defined in 23 U.S.C. 101(a)(29) and MAP-21 §1103:
 - A. Construction, planning, and design of on-road and off-road trail facilities for pedestrians, bicyclists, and other non-motorized forms of transportation including sidewalks, bicycle infrastructure, pedestrian and bicycle signals, traffic calming techniques, lighting and other safety-related infrastructure, and transportation projects to achieve compliance with the Americans with Disabilities Act of 1990 [42 USC 12101 et seq.].
 - B. Construction, planning, and design of infrastructure-related projects and systems that will provide safe routes for non-drivers including children, older adults, and individuals with disabilities to access transportation needs.
 - C. Conversion and use of abandoned railroad corridors to trails for pedestrians, bicyclists, or other non-motorized transportation users.
 - D. Construction of turnouts, overlooks and viewing areas.
 - E. Community improvement activities which include but are not limited to:
 - i. inventory, control, or removal of outdoor advertising;
 - ii. historic preservation and rehabilitation of historic transportation facilities;
 - iii. vegetation management practices in transportation rights-of-way to improve roadway safety, prevent against invasive species, and provide erosion control; and
 - iv. archaeological activities relating to impacts from implementation of a transportation project eligible under 23 USC.
 - F. Any environmental mitigation activity including pollution prevention and pollution abatement activities to:
 - i. address stormwater management and control; water pollution prevention or abatement related to highway construction or due to highway runoff including activities described in 23 USC 133(b)(11), 328(a) and 329; or
 - ii. reduce vehicle-caused wildlife mortality or restore and maintain connectivity among terrestrial or aquatic habitats.



2. The recreational trails program under 23 USC 206.
3. Safe Routes to School Program (SRTS) eligible projects and activities listed at Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) §1404(f) including:
 - A. Infrastructure-related projects.
 - B. Non-infrastructure related activities.
 - C. Safe Routes to School coordinator.
4. Planning, designing or constructing boulevards and other roadways largely in the right-of-way of former Interstate System routes or other divided highways.

TAP funds cannot be used for:

- State or MPO administrative purposes, except for SRTS administration and administrative costs of the State permitted Recreational Trails Program (RTP) set-aside funds.
- Promotional activities, except as permitted under the SRTS.
- General recreation and park facilities, playground equipment, sports fields, campgrounds, picnic areas etc.
- Routine maintenance and operations.

TRANSIT FUNDING SOURCES

FDOT and the FTA both provide funding opportunities for transit and transportation disadvantaged projects through specialized programs. In addition, FHWA transfers funds to FTA which provide substantial additional funding for transit and transportation disadvantaged projects. When FHWA funds are transferred to FTA, they are transferred to FTA Urbanized Area Formula Program (§5307). According to FTA Circular 9070.1G, at a State’s discretion Surface Transportation funds may be “flexed” for transit capital projects through the Non-Urbanized Area Formula Program (§5311), and according to FTA Circular 9040.1G with certain FHWA funds to Elderly and Persons with Disabilities Program (§5310). In urbanized areas over 200,000 in population, the decision on the transfer of flexible funds is made by the MPO. In areas under 200,000 in population, the decision is made by the MPO in cooperation with FDOT. In rural areas, the transfer decision is made by FDOT. The decision to transfer funds flows from the transportation planning process and established priorities.

§5305: Metropolitan Transportation Planning Program Funds: State Departments of Transportation sub-allocate § 5 3 0 5 formula-based program funding to MPOs including the Collier MPO. The program provides funding to support cooperative, continuous, and comprehensive planning for making transportation investment decisions in metropolitan areas as well as statewide. Funds are available for planning activities that (a) support the economic vitality of the

metropolitan area, especially by enabling global competitiveness, productivity, and efficiency; (b) increase the safety and security of the transportation system for motorized and non-motorized users; (c) increase the accessibility and mobility of people and freight; (d) protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns; (e) enhance the integration and connectivity of the transportation system for people and freight across and between modes; (f) promote efficient system management and operation; and (g) emphasize preservation of the existing transportation system.

§5307 - Urbanized Area (UZA) Formula Program Funds: The Bonita Springs (Naples) FL UZA receives an annual allocation of §5307 funding which may be used for: (a) transit capital and operating assistance in urbanized areas; (b) transportation related planning; (c) planning, engineering, design and evaluation of transit projects; and (d) other technical transportation-related studies. Eligible capital investments include: (a) replacement, overhaul and rebuilding of buses; (b) crime prevention and security equipment; (c) construction of maintenance and passenger facilities; (d) new and existing fixed guide-way systems including rolling stock and rail stations; and (e) overhaul and rebuilding of vehicles, track, signals, communications, and computer hardware and software. All preventive maintenance and some Americans with Disabilities Act (ADA) complementary paratransit service costs are considered eligible capital costs. MAP-21 amended this program to include expanded eligibility for operating expenses for systems with 100 or fewer buses. Collier County receives at least \$2 million dollars each year to assist in transit capital expenses. Local/State matches for §5307 consist of toll revenue credits issued by FDOT and local funds which follow FTA match guidelines. For urbanized areas with populations greater than 200,000, including Collier County, funds are apportioned and flow directly to a locally selected designated recipient. Collier County is the designated recipient for the urbanized area § 5307 funding.

§5310 – Transportation for Elderly Persons and Persons with Disabilities: The Federal goal of the §5310 program is to provide assistance in meeting the needs of elderly persons and persons with disabilities where public transit services are unavailable, insufficient or inappropriate. Funds are apportioned based on each state’s population share of these groups of people. Eligible activities for §5310 funding include: (a) services developed that are beyond what is required by the American’s with Disabilities Act; (b) projects that will improve access to fixed route service and/or decrease reliance by individuals with disabilities on complementary paratransit; and (c) projects that provide an alternative to public transportation that assists seniors and individuals with disabilities.

MAP-21 apportions these funds to designated recipients based on a formula. In Florida, the §5310 Program is administered by FDOT on behalf of FTA with funding allocated to the Bonita Springs (Naples) Urbanized Area. Projects selected must be included in a locally developed, coordinated public transit human services transportation plan. FDOT

calls for §5310 applications annually and awards funds through a competitive process.

§5311 - Rural Area Formula Grant: This program [49 U.S.C. 5311] provides formula funding to states to support public transportation in areas with populations less than 50,000. Program funds are apportioned to each state based on a formula that uses land area, population and transit service. According to Federal program rules, program funds may be used for capital operating, state administration, and project administration expenses; however, Florida allows eligible capital and operating expenses.

In Florida, the §5311 Program is administered by FDOT. Program funds are distributed to each FDOT district office based on its percentage of the state’s rural population. Each district office allocates program funds to designated eligible recipients through an annual grant application process. §5311 funds in Collier County are used to provide fixed route service to rural areas such as Immokalee and Golden Gate Estates.



§5339 – Bus and Bus Facilities Funds: This program makes federal resources available to state and direct recipients to replace, rehabilitate and purchase buses and related equipment, and to construct bus-related facilities including technological changes or innovations to modify low or no emission vehicles or facilities. Funding is provided through formula allocations and competitive grants. A sub-program provides competitive grants for bus and bus facility projects that support low and zero-emission vehicles.

Eligible recipients include direct recipients that operate fixed route bus service or that allocate funding to fixed route bus operators; state or local governmental entities; and federally recognized Native American tribes that operate fixed route bus service that are eligible to receive direct grants under §5307 and §5311.

Transportation Disadvantaged Program Funds: Chapter 427, Florida Statutes, established the Florida Commission for the Transportation Disadvantaged (CTD) with the responsibility to coordinate transportation services provided to the transportation disadvantaged through the Florida Coordinated Transportation System. The CTD also administers the Transportation Disadvantaged Trust Fund. Transportation disadvantaged individuals are those who cannot obtain their own transportation due to disability, age, or income.

The Collier MPO, through the Local Coordinating Board (LCB), identifies local service needs and provides information, advice and direction to the Community Transportation Coordinator (CTC) on the coordination of services to be provided to the transportation disadvantaged [Chapter 427, Florida Statutes]. The Collier County Board of County Commissioners (BCC) is designated as the CTC for Collier County and is responsible for ensuring that coordinated transportation services are provided to the transportation disadvantaged population of Collier County.

Public Transit Block Grant Program: The Public Transit Block Grant Program was established by the Florida Legislature to provide a stable source of funding for public transit [341.052 Florida Statutes]. Specific program guidelines are provided in FDOT Procedure Topic Number 725-030-030. Funds are awarded by FDOT to those public transit providers eligible to receive funding from FTA’s §5307 and §5311 programs and to Community Transportation Coordinators. Public Transit Block Grant funds may be used for eligible capital and operating costs of providing public transit service. Program funds may also be used for transit service development and transit corridor projects. Public Transit Block Grant projects must be consistent with applicable approved local government comprehensive plans.

Public Transit Service Development Program: The Public Transit Service Development Program was enacted by the Florida Legislature to provide initial funding for special projects [341 Florida Statutes]. Specific program guidelines are provided in FDOT Procedure Topic Number 725-030-005. The program is selectively applied to determine whether new or innovative techniques or measures could be used to improve or expand public transit services. Service Development Projects specifically include projects involving the use of new technologies for services, routes or vehicle frequencies; the purchase of special transportation services; and other such techniques for increasing service to the riding public. Projects involving the application of new technologies or methods for improving operations, maintenance, and marketing in public transit systems are also eligible for Service Development Program funding. Service Development projects are subject to specified times of duration with a maximum of three years. If determined to be successful, Service Development Projects must be continued by the public transit provider without additional Public Transit Service Development Program Funds.

ADDRESSING SAFETY PERFORMANCE MEASURES AND TARGETS

Performance Management is a strategic approach to connect investment and policy decisions to help achieve performance goals. Performance measures are quantitative criteria used to evaluate progress. Performance measure targets are the benchmarks against which collected data is gauged. The Moving Ahead for Progress in the 21st Century Act (MAP-21) requires State DOTs and MPOs to conduct performance-based planning by tracking performance measures and setting data-driven targets to improve those measures. Performance-based planning ensures the most efficient investment of federal transportation funds by increasing accountability, transparency, and providing for better investment decisions that focus on key outcomes related to seven national goals:

- Improving Safety;
- Maintaining Infrastructure Condition;
- Reducing Traffic Congestion;
- Improving the Efficiency of the System and Freight Movement;
- Protecting the Environment; and,
- Reducing Delays in Project Delivery.

The Fixing America’s Surface Transportation (FAST) Act supplements the MAP-21 legislation by establishing timelines for State DOTs and MPOs to comply with the requirements of MAP-21. State DOTs are required to establish statewide targets and MPOs have the option to support the statewide targets or adopt their own.

Safety is the first national goal identified in the FAST Act. In March of 2016, the Highway Safety Improvement Program and Safety Performance Management Measures Rule (Safety PM Rule) were finalized and published in the *Federal Register*. The rule requires MPOs to set targets for the following safety-related performance measures and report progress to the State DOT:

- Fatalities;
- Serious Injuries;
- Nonmotorized Fatalities and Serious Injuries;
- Rate of Fatalities per 100M Vehicle Miles Traveled (VMT); and
- Rate of Serious Injuries per 100M VMT.

The MPO is supporting the Florida Department of Transportation (FDOT) statewide safety performance measure targets which includes Vision Zero. The MPO will support achievement of the FDOT Vision Zero safety targets by assessing the performance of the transportation system and linking investment priorities to the achievement of targets in the Long-Range Transportation Plan and Transportation Improvement Program. The performance management process will become an on-going part of the transportation planning process. The MPO will continue to coordinate with FDOT and transit providers to take action on the additional targets and other requirements of the federal performance management process.

Safety Performance Measures and FDOT Targets Supported by Collier MPO

- Fatalities; 0
- Serious Injuries; 0
- Nonmotorized Fatalities and Serious Injuries; 0
- Rate of Fatalities per 100M Vehicle Miles Traveled (VMT); 0
- Rate of Serious Injuries per 100M VMT; 0.

The TIP supports the FDOT Vision Zero targets by including the following projects identified as having a safety component:

- 4351101 CR 887 (old US 41) from US 41 to Lee County Line PD&E/EMO Study 2012 Comprehensive Pathways Plan; Exhibit 10 p 53 Safety Enhancement Need
- 4351181 CR 8262 (Vanderbilt) from CR 901 to Gulf Pavilion Dr 5' Paved Shoulder/Keyholes 2012 Comprehensive Pathways Plan; Exhibit 10 p 53 Safety Enhancement Need
- 4380921 CR 901/Vanderbilt Drive from Vanderbilt Beach Rd to 109 Ave N Sidewalk 2012 Comprehensive Pathways Plan; Exhibit 10 p 53 Safety Enhancement Need
- 4414801 Eden Park Elementary Safe Routes to Schools; 6' Sidewalks
- 4418451 Lake Trafford Rd from Little League Rd to Laurel St; 5' Bike Lanes and 4418452; 6" Sidewalks 2012 Comprehensive Pathways Plan, Exhibit 10 p 53 Safety Enhancement Need
- 4404251 Pine Ridge Rd from Whippoowill Lane to Napa Blvd 6' Sidewalk Southside Comprehensive Pathways Plan, Exhibit 10 p 53 Safety Enhancement Need
- 4175403, -04, -05, -06 & 4178784 SR 29 from Sunniland Nursery Rd to Hendry County Line; Widen from 2-4 lanes; SIS and addresses safety concerns on corridor
- 4308481 & 4308491 SR 82 from Hendry County Line to SR 29 widen from 2-4 lanes; SIS and addresses safety concerns on corridor
- 4390021 SR 29 from North First St to North 9th ST; Pedestrian Safety Improvement

- 4350291 US 41 from CF 846 (111th ST) to N of 91st Ave; 6' Sidewalk on east side and 3 bus shelters; 2012 Comprehensive Pathways Plan, Exhibit 10 p53 Safety Enhancement Need (also addresses ADA access to transit)
- 4380591 US41 (SR90) Tamiami Trail FM E of SR84(Davis Blvd) to Courthouse Shadows; Resurfacing and Includes Safety Elements, the majority from the Airport Rd/US41 Road Safety Audit
- 4350411 County Wide Strategic Highway Safety Plan

2017 MPO PROJECT PRIORITY AND PROJECT SELECTION PROCESSES

The method to select projects for inclusion in the TIP depends on whether the metropolitan area has a population of 200,000 or greater. Metropolitan areas with populations greater than 200,000 are called Transportation Management Areas (TMA). The Collier MPO is a TMA. In a TMA, the MPO selects many of the Title 23 and FTA funded projects for implementation in consultation with FDOT and local transit operators. Projects on the National Highway System (NHS) and projects funded under the bridge maintenance and interstate maintenance programs are selected by FDOT in cooperation with the MPO. Federal Lands Highway Program projects are selected by the respective federal agency in cooperation with FDOT and the MPO [23 C.F.R. 450.330(c)]. FDOT coordinates with the MPO to ensure that projects are also consistent with MPO priorities.

Federal and State transportation programs help the Collier MPO complete transportation projects which are divided into several categories including: highway (including maintenance), transit, sidewalk/bicycle paths and/or facilities, congestion management, bridges, planning, and aviation. Many of these projects require multiple phases which must be completed in order. Project phases may include: Project Development & Environment studies (PD&E), Preliminary Engineering (PE), Right-of-Way acquisition (ROW), Railroads and Utilities (RRU) and Construction (CST). Some phases may require multi-year efforts to complete, therefore it is often necessary to prioritize only one or two phases of a project within a TIP with the next phase(s) being included in subsequent TIPs.

All projects in this TIP must be consistent with the Collier MPO 2040 Long Range Transportation Plan (LRTP) adopted on December 11, 2015. Projects were included in the LRTP based on their potential to improve the safety and/or performance of a facility; increase capacity or relieve congestion; and preserve existing transportation investments. TIP projects are also consistent, to the extent feasible, with the Capital Improvement Programs and Comprehensive Plans of Collier County, the City of Naples, the City of Marco Island, and the City of Everglades as well as the Master Plans of the Collier County Airport Authority and the Naples Airport Authority. With minor exceptions, projects in the TIP must also be included in the FDOT Five-Year Work Program (WP) and the State Transportation Improvement Program (STIP).

The MPO’s 2017 Transportation Project Priorities, for inclusion in the FY2019 – FY2023 TIP, were adopted by the MPO Board on June 9, 2017 and are discussed below. The MPO and FDOT annually update the TIP, FDOT Work Program (WP) and STIP by adding a “new fifth year” which maintains the programs as rolling five-year programs. FDOT coordinates this process with the MPO to ensure that projects are consistent with MPO priorities. During each spring/summer, the MPO prioritizes projects derived from its adopted LRTP and based on the MPO’s annual allocation of Federal Surface Transportation Program (STP) funds, State Transportation Trust Funds and other funding programs. The MPO’s list of

prioritized projects is formally reviewed by the Technical Advisory Committee (TAC), Citizens Advisory Committee (CAC), Bicycle and Pedestrian Advisory Committee (BPAC), and Congestion Management Committee (CMC), and is approved by the MPO Board before being transmitted to FDOT for funding consideration. (See Appendix I for a description of the criteria used for project prioritization.) The list of prioritized projects includes highway, sidewalk/bicycle paths and/or facilities, congestion management, bridge and transit projects which are illustrated on the following pages. All projects funded through the FDOT Work Program are included in Part I of this TIP. Table 1 shows the general timeframe for the MPO’s establishment of project priorities and the development of the FY2019 – FY2023 TIP.

Table 1 – General Timeframe for TIP Process

January - March 2017	MPO solicits candidate projects for potential funding in FY2019 - FY2023 TIP.
June 2017	MPO adopts prioritized list of projects for funding in the MPO FY2019- FY2023 TIP.
September 2017	MPO adopts TIP Amendment for inclusion in Roll Forward Report
October-November 2017	FDOT releases its Tentative Five-year Work Program for FY2019 - FY2023
March – June 2018	<ul style="list-style-type: none"> • MPO produces draft FY2019 - 2023 TIP • MPO Board and committees review draft TIP • MPO advisory committees endorse TIP
June 2018	<ul style="list-style-type: none"> • MPO adopts FY2019 – FY2023 TIP which is derived from FDOT’s Tentative Five-year Work Program. • MPO adopts prioritized list of projects for funding in the FY2020 - FY2024 TIP.
July 2018	FDOT’s Five-Year Work Program FY2019 - FY2023 TIP is adopted and goes into effect.

2017 HIGHWAY PRIORITIES

The highway priorities' list is consistent with the Collier 2040 LRTP Cost Feasible Plan. The 2017 Highway Related Priorities (Table 2) were approved by the MPO Board on June 9, 2017. The list was forwarded to FDOT for consideration of future funding.

Table 2 – 2017 Highway Priorities (County may submit revisions)

LRTP Priority Ranking	Facility	Limit From	Limit To	Final Proposed Improvement - 2040 LRTP	Link in Miles	Total Project Cost (PDC)	Construction Time Frame	5-Year Window in which CST is Funded by Source			
								2021-25			Projects Funded in CFP
								Phase	Source	YOE Cost	YOE
2	Golden Gate Parkway	I-75 Interchange	I-75 Interchange	Eastbound on-ramp - New 2 lane Ramp		\$2,000,000	2021-2025	PE	OA	\$590,000	\$3,130,000
								CST	OA	\$2,540,000	
3	Pine Ridge Rd	I-75 Interchange	I-75 Interchange	Intersection Traffic Signalization		\$5,000,000	2021-2025	PE	OA	\$800,000	\$7,150,000
								CST	OA	\$6,350,000	
5	CR 951 (Collier Blvd)	Golden Gate Canal	Green Blvd	4 to 6 lane roadway	2.0	\$30,000,000	2021-2025	PE	OA	\$3,600,000	\$41,700,000
								CST	OA	\$38,100,000	
7	Immokalee Rd	I-75 Interchange	I-75 Interchange	Intersection Traffic Signalization		\$2,750,000	2021-2025	PE	OA	\$510,000	\$4,000,000
								CST	OA	\$3,490,000	
12	Old US 41	US 41 (SR 45)	Lee/Collier County line	Add Lanes and Reconstruct	1.5	\$15,030,000	2026-2030	PE	OA	\$2,720,000	
19a	Critical Needs Intersection (Randall Blvd at Immokalee Rd)	Immokalee Rd	8th Street	Interim At-Grade Improvements, including 4 laning 8th Street		\$4,000,000	2021-2025	CST	OA	\$5,080,000	\$5,080,000
21	US 41	Goodlette Rd	N/A	Intersection Improvements		\$2,000,000	2021-2025	PE	OA	\$370,000	\$2,912,000
								CST	OA	\$2,542,000	
41	SR 951 (Collier Blvd)	South of Manatee Rd	North of Tower Rd	4 to 6 lane roadway	1	\$13,350,000	2026-2030	PE	OA	\$2,020,000	\$22,050,000

2017 SIS PRIORITIES (for Collier and Lee County MPOs)

In addition to the highway priorities listed above, the MPO forwards two lists of projects on the Strategic Intermodal System (SIS) network to FDOT for consideration of future funding. The SIS network includes highways, airports, spaceports, deep water seaports, freight rail terminals, passenger rail, intercity bus terminals, rail corridors and waterways that are considered the largest and most significant commercial transportation facilities in the state.

Presently, I-75 is the only SIS facility in Collier County. Two other facilities in Collier County, State Route 82 (SR82) and State Route 29 (SR29), are on the “emerging” SIS network”. “Emerging” SIS facilities are usually located in, or connect to, fast growing areas. They normally have lower current volumes of people and freight but have the potential for significant future growth. Should this growth occur, these facilities may be elevated to the SIS network. Emerging SIS facilities are fully eligible for FDOT SIS funding but are categorized separately to encourage proactive planning.

Table 3A and Table 3B illustrate the 2017 SIS Priorities for both the Collier MPO (adopted by the MPO Board on June 9, 2017) and the Lee County MPO Board. The Collier MPO Priorities have been carried forward from the 2035 LRTP and are consistent with the Collier 2040 LRTP.

**Table 3A Lee County and Collier MPOs Joint SIS Priorities
Adopted by Collier MPO June 9, 2017, Lee County MPO June 16, 2017**

2012 Priority	2017 Priority	Project	From	To	Improvement Type	Next Phase	Volume	Capacity	V/C
20	1 ¹	SR 82	Hendry County Line	Gator Slough	2 - 4L	CST	12,000	16,400	0.73
10	2 ²	SR 29 Loop Rd	SR 29 (South)	SR 29 (North)	New 4L	ROW	New	41,700	
23	3	SR 29	New Market Road North	SR 82	2-4L	ROW	16,450	16,400	1.00
NA	4	I-75	Pine Ridge Road	SR 82	6L - 8 Aux Lns	PD&E	100,500	111,800	0.90
7	5	SR 80	SR 31	Buckingham Rd	4-6L	PD&E	35,000	41,700	0.84
24	6	SR 29	9th St North	Immokalee Dr	2-4L	PE	16,000	19,514	0.82
12	7	SR 29	Immokalee Dr	New Market Rd North	2-4L	ROW	15,900	19,514	0.81
NA	8 ³	SR 31	SR 80	SR 78	2 - 4L	PD&E	11,100	17,700	0.63
26	9	SR 29	Oil Well Rd	South of Agrucultural Way	2-4L	PE	5,000	8,400	0.59
25	10	SR 29	South of Agricultural Way	CR 846 East	2-4L	ROW	7,100	19,514	0.43
26	11	SR 29	I 75	Oil Well Rd	2-4L	PE	3,200	8,400	0.38
13	12	I 75	Pine Ridge Rd	SR 80	6-10L	PD&E	100,500	111,800	0.90
Notes									
1. Joint Board #1 Priority									
2. Will improve other SR29 needs									
3. Includes bridge									

Attachment: Draft TIP Narrative (4991 : Draft Narrative and Project Sheets for FY2019-2023 Transportation

**Table 3B Lee County and Collier MPOs Joint SIS Priorities
Adopted by Collier MPO June 9, 2017, Lee County MPO June 16, 2017**

Project	Interchange	Improvement Type	Next Unprogrammed Phase	Notes
I 75	@ Everglades Blvd	New Interchange	IJR	
I 75	@ Golden Gate Pkwy	Minor Interchange Improvements	Study	Short Term
I 75	@ Pine Ridge Rd	Minor interchange improvements	Study	Short Term
I 75	@ Immokalee Rd	Major interchange improvements	PD&E	Short Term
I 75	@ Bonita Beach Rd	Major interchange improvements	PE	Mid Term
I 75	@ Corksrew Rd	Major interchange improvements	PE	Short Term
I 75	@ Daniels Pkwy	Minor Interchange Improvements	Study	Short Term
I 75	@ SR 82	Major interchange improvements	PE	Long Term
I 75	@Luckett Rd	Major interchange improvements	PE	Long Term
I 75	@ SR 78	Minor interchange improvements	PE	Short Term
I 75	@ Del Prado Ext.	New Interchange	IJR	
<p><u>Notes to Table 3B</u> Short Term - Current to 2025 Mid Term - 2025-2035 Long Term - 2035-2045 Minor Interchange Improvement - Add additional turn lanes, operational improvements Major Interchange Improvement - Rebuild to accommodate future 10-lane cross section</p>				

2017 BRIDGE PRIORITIES

Bridge related priorities are consistent with the 2040 LRTP. The 2017 Bridge Related Priorities (Table 4) were approved by the MPO Board on June 9, 2017 and forwarded to FDOT for consideration of future funding. The cost of each new bridge is estimated at \$8 million.

Table 4 – 2017 Bridge Priorities

Rank	Location	Proposed Improvement
1	16th Street NE, south of 10th Avenue NE	New Bridge Construction
2	47th Avenue NE, west of Everglades Boulevard	New Bridge Construction
3	Wilson Boulevard, South of 33rd Avenue NE	New Bridge Construction
4	18th Ave NE, Between Wilson Boulevard N and 8th Street NE	New Bridge Construction
5	18th Ave NE, Between 8th Street NE and 16th Street NE	New Bridge Construction
6	13th Street NW, North End at Proposed Vanderbilt Beach Road Extension	New Bridge Construction
7	16th Street SE, South End	New Bridge Construction
8	Wilson Boulevard South, South End	New Bridge Construction
9	Location TBD, between 10th Avenue SE and 20th Avenue SE	New Bridge Construction
10	62nd Avenue NE, West of 40th Street NE	New Bridge Construction

2017 TRANSIT PRIORITIES

Florida State Statutes require each transit provider in Florida that receives State Transit Block Grant funding to prepare an annual Transit Development Plan (TDP). The TDP is a ten-year plan for Collier Area Transit (CAT) that provides a review of existing transportation services and a trend analysis of these services. Table 5 shows the 2017 Transit Priorities which were approved by the MPO Board on June 9, 2017 and submitted to FDOT for consideration of future funding.

Table 5 - Transit Priorities 2017

Priority Ranking	Requested Funding / Project Estimates	Location	Description
1	\$500,000	Collier County	Enhance accesibility to bus stops to meet ADA requirements.
2	\$500,000*	Collier County	Construction of bus shelters & amenities (bike rack, bench, trash can, etc.)
3	\$300,000****	Collier County	Required Environmental & Design Phases for future construction of a Park and Ride Facility on US 41 at the Lee County line
4	\$300,000****	Collier County	Required Environmental & Design Phases for future construction of a Park and Ride Facility at the intersection of Collier Boulevard and Immokalee Road
5	\$2,341,500***	Collier County	Extend service hours on exisitng routes (1 additional run/ 7days/week)
6	\$2,220,000**	Collier County	Reduce headways to 45 minutes on routes 11 & 12
7	\$1,110,000**	Collier County	Lee/Collier Connection
8	\$2,220,000**	Collier County	Reduce headways to 45 minutes on routes 15 & 17
9	\$1,702,692**	Collier County	Reduce headways to 30 minutes on route 13
10	\$100,000	Collier County	Existing Transfer Point Upgrade (Coastland Mall)

* Collier PTNE recently redesigned of shelters to ensure that shelters provide more protection from the elements.
 ** Includes cost for 3 years estimated per route per year (Based on current operating hours). This cost does not include bus purchase.
 *** Includes cost for 3 years estimated at \$780,500 per year. (Based on existing routes)
 *** Cost estimate does not include right-of-way acquisition or construction.

2017 CONGESTION MANAGEMENT PRIORITIES

Transportation Management Areas (urbanized areas with populations over 200,000) are required by 23 USC 134 (k)(3) to have a Congestion Management Process (CMP) that provides for the effective and systematic management and operation of new and existing facilities through the use of travel demand reductions and operational management strategies. CMP projects that are eligible for Federal and state funding include sidewalk/bicycle paths and/or facilities and congestion management projects that alleviate congestion, do not require the acquisition of right-of-way and demonstrate quantifiable performance measures. The 2017 CMC Priorities are consistent with the 2040 LRTP, were adopted by the MPO Board on June 9, 2017 and are shown in Table 6.



Table 6 - 2017 Congestion Management Priorities

Rank	Project Name	Project Description	Requested funding (estimate)	Total Project Cost	Submitting Agency/ Jurisdiction	Project Status
1	Traffic Operations Center Consolidation Study	Project to study the existing conditions for the City of Naples TOC and Collier County TOC and evaluate the advantages and disadvantages for consolidation	\$250,000	\$350,000	City of Naples	Study completed using State funds
2	Collier County Traffic Management Center Expansion	Construct a new two-story, 4500 sq. ft. freestanding building to house the new Traffic Management Center	\$3,611,000	\$3,611,000	Collier County Traffic Ops	Unfunded
3	New Video Wall for Traffic Control Center	Provide 12 - 48" monitors, 3 - 30' cables for monitors, 3 servers and new video software for City's traffic operations center	\$400,000	\$400,000	City of Naples	Partially completed with State funds

Attachment: Draft TIP Narrative (4991 : Draft Narrative and Project Sheets for FY2019-2023 Transportation

BICYCLE and PEDESTRIAN PRIORITIES

Bicycle and Pedestrian Project Priorities are derived from the 2012 Collier MPO Comprehensive Pathways Plan. Beginning in 2018, these priorities will be derived from the Collier MPO Bicycle & Pedestrian Master Plan which will replace the 2012 Plan. The two plans share a similar vision of providing a safe, connected and convenient on-road and off-road network throughout the Collier MPA to accommodate bicyclists and pedestrians as well as a similar goal of improving transportation efficiency and enhancing the health and fitness of the community while allowing for more transportation choices. After approval by the MPO Board on June 9, 2017, the list was sent to FDOT for consideration of future funding and is shown in Table 7.

Table 7 – 2017 Pathways Priorities

Rank	Project Name	Project Description	Limits		Amount Requested	Submitting Agency/ Jurisdiction	Phase/Amount Funded in Work Program	FPN
1	County Barn Rd	10' Shared Use Path - west side	Davis Blvd	Rattlesnake Hammock Rd	\$1,411,482	Collier County	PE \$176,000 CST \$1,879,376	4380911
2	Vanderbilt Drive	Sidewalk and crosswalk	VBR & 109th Ave North	109th Ave. North & 111th Ave North	\$272,248	Collier County	PE \$151,000 CST \$709,075	4380921
3	Green Blvd	5' Bike Lanes - both sides	Santa Barbara Blvd	Sunshine Blvd	\$567,750	Collier County	PE \$279,363 CST \$1,084,670	4380931
5	S. Golf Dr	5-ft sidewalks, crosswalks, bike lanes, parking on north side	500' West of US 41 & 7th St N	7th St. N. & '400 east of Gulf Shore Blvd N	\$880,000	City of Naples	PE \$279,363	4404371
6	Pine Ridge Road	6' sidewalk - south side	Whippoorwill Lane	Napa Blvd	\$561,800	Collier County	PE \$229,418	4404251
7	111th Ave N	5' Bike Lanes/Paved Shoulders - both sides	U.S. 41	East of Bluebill Bridge	\$480,000	Collier County	PE \$64,740	4418461
8	Mandarin Greenway Sidewalk Loop	Sidewalks	Banyan Blvd & on Pine Ct	Orchid Dr	\$299,500	City of Naples	PE \$45,311 CST \$349,407	4404361
9	Bald Eagle Dr	8' Shared Use Pathway - west side	Collier Blvd.	Old Marco Lane	\$344,030	City of Marco Island	PE \$36,000	4418781
10	Everglades City - Copeland Ave S	Sidewalks	Traffic Circle by Everglades City Hall	Chokoloskee Bay Causeway	\$410,000	Everglades City	PE \$235,000 CST \$520,391	4370961
11	Lake Trafford Rd	6' Sidewalks	Carson Rd	Laurel St	\$492,800	Collier County	PE \$71,209	4418452
12	Inlet Dr. - Addison Court Pathway	8' Shared Use Pathway - east and south side	Travida Terr. Along Addison Ct	Lee Court	\$299,707	City of Marco Island	PE \$31,000	4418791
13	Lake Trafford Rd	5' Bike Lanes	Little League Rd	Laurel St	\$780,500	Collier County	PE \$92,245	4418451
14	Immokalee Rd	10' Shared Use Pathway	Strand Blvd	Northbrooke Dr	\$1,209,219	Collier County		

Attachment: Draft TIP Narrative (4991) : Draft Narrative and Project Sheets for FY2019-2023 Transportation

REGIONAL PRIORITIES – TRANSPORTATION REGIONAL INCENTIVE PROGRAM (TRIP) and REGIONAL TRANSPORTATION ALTERNATIVE PROGRAM (RTAP)



In addition to local MPO priorities, the Collier MPO coordinates with the Lee County MPO to set regional priorities for Transportation Regional Incentive Program (TRIP) and Regional Transportation Alternatives Program (RTAP) funding. TRIP and RTAP are discretionary programs that fund regional projects prioritized by the two MPOs. The Lee County and Collier MPOs entered into an Interlocal Agreement by which they set policies for the regional networks and prioritize regional projects to utilize available regional funding. The approved RTAP and TRIP priorities are shown below in Table 8 and Table 9 and were submitted to FDOT for consideration of future funding. A set of regional maps is included in Appendix B.

**Table 8 – 2017 Joint Collier/Lee County MPO RTAP Regional Pathway Priorities
Adopted by Collier MPO June 9, 2017, Lee County MPO June 16, 2017**

2017 Rank	Roadway/ Project	Project Limits	Length	Proposed Improvements	Program med Phase	Next Unfunded Phase	Requested Funds	Local Match	Total Cost
1	SR 80	Buckingham Rd to Werner Dr ¹	2.04 Mile	SUP (South Side)	NA	PE + CST	\$1,938,608	\$ -	\$1,938,608
2	Daniels Pkwy	West of Commerce Lakes Drive	2.50 Mile	SUP(North Side)	NA	PD&E	\$ 269,317	\$ -	\$ 269,317
3	Gladiolus Dr	Maida Lane to US 41	1.09 Mile	SUP (South Side)	NA	PD&E	\$ 284,424	\$ -	\$ 284,424
4	Estero Blvd	Hickory Blvd to Big Carlos Bridge	3.62 Mile	SUP (West Side)	NA	PD&E	\$ 297,230	\$ -	\$ 297,230

Notes:

SUP - Shared Use Path

Cost estimates to be refined or developed

Costs based on FDOT provided unit cost for 12' Shared Use Path

Funding source is FDOT portion of 'any area' Transportation Alternative Program funds

¹LC School District has identified this segment as a hazardous walking location. As per Gabby's Law for Student Safety Act, school district identified hazardous walking locations on state highways should be corrected by FDOT by adding a project in its 5 year work program. Considering this is an expensive project FDOT can consider staging the construction.

**Table 9 – 2017 Joint Collier/Lee County MPO TRIP Priorities
Adopted by Collier MPO June 9, 2017, Lee County MPO June 16, 2017**

Fiscal Year	Sponsor	Route	From	To	Proposed Improvement	Requested Phase	Total Cost	Requested TRIP Funds	Staff Priority	State Funding Level	Fiscal Year
2016/17	Lee County	Burnt Store Road	Tropicana Pkwy	Diplomat Pkwy	2L to 4L	CST	\$5,000,000	\$2,500,000	Funded	\$2,500,000	FY 17 & 18
2016/17	Lee County	Estero Blvd	Segment 2		Road Upgrade	CST	\$7,750,000	\$3,875,000	#2		
2017/18	Collier County	Collier Blvd	Golden Gate Main Canal	Golden Gate Pkwy	4L to 6L	ROW	\$2,469,440	\$1,234,720	#1		
2017/18	Cape Coral	Chiquita Blvd	S/o Cape Coral Pkwy	North of SR 78	4L to 6L	ROW	\$30,000,000	\$4,000,000	#2		
2017/18	LeeTran	Regional Transfer Facility and Connector			Facility and new service route	CST	\$3,000,000	\$1,500,000	#3		
2017/18	LeeTran	Capital Expenditures for Passenger Amenities, Bus Pull- Outs, and pavement markings			Facility	CST	\$1,000,000	\$500,000	Funded	\$1,000,000	FY 17/18
2018/19	Lee County	Burnt Store Rd	SR 78	Tropicana Pkwy	2L to 4L	CST	\$7,700,000	\$3,850,000	#1	\$2,962,302	FY 19/20
2018/19	Lee County	Estero Blvd	Segment 3		Road Upgrade	CST	\$7,750,000	\$3,875,000	#2		
2018/19	LeeTran	Capital Expenditures for Passenger Amenities, Bus Pull- Outs, and pavement markings			Facility	CST	\$1,000,000	\$500,000	#3		
2019/20	Lee County	Ortiz	Colonial Blvd	SR 82	2L to 4L	CST	\$12,450,000	\$6,225,000	#1		
2019/20	Collier County	Golden Gate Blvd	20th Street	Everglades Blvd	2L to 4L	CST	\$24,300,000	\$12,150,000	#2		
2019/20	Collier	Vanderbilt	US 41	E. of	4L to 6L	CST	\$8,428,875	\$4,214,438	#3		

Attachment: Draft TIP Narrative (4991) : Draft Narrative and Project Sheets for FY2019-2023 Transportation

	County	Beach Rd		Goodlette							
2020/21	Collier County	Immokalee at Randal Interim Intersection Improvements			Intersection	CST	\$5,953,200	\$2,976,600	#1		
2020/21	Collier County	Oil Well Road	Everglades	Oil Well Grade Rd.	2L to 6L	CST	\$31,400,000	\$15,700,000	#2		
2020/21	Collier County	Pine Ridge at Livingston Road Intersection Improvements			Intersection	CST	\$7,304,968	\$3,652,484	#3		
2020/21	Lee County	Estero Blvd	Segment 4		Road Upgrade	CST	\$7,750,000	\$3,875,000	Funded	\$2,651,966	FY 20/21

Major Projects Implemented or Delayed from the Previous TIP (FY 2018 – FY 2022)

23 CFR §450.324(2) requires MPOs to list major projects from the previous TIP that were implemented and to identify any significant delays in the planned implementation of major projects. The Collier MPO TIP identifies *major projects* as a *multi-laning or a new facility type capacity improvement*. The following list provides the status of the major projects that were identified as such in the FY2018 – FY2022 TIP.

Major Projects Implemented/Completed

- No multi-laning or new facility capacity improvement projects were scheduled for completion of construction phase.

Major Projects Significantly Delayed, Reason for Delay and Revised Schedule

- No major projects were significantly delayed.

Major Projects in the FY2019 – FY2023 TIP

The Collier MPO TIP identifies *major projects* as a *multi-laning* or a new facility type capacity improvement. The following list provides the status of the major projects that were identified as such In the FY 2017/20187 – FY 2021/2022 TIP.

Multi-Laning or New Facility Capacity Improvement Projects

- I-75 @ SR951; FPN 4258432; Major interchange improvement; \$103 million CST, ENV, INC, PE, ROW, RRU in FY2019-2021 and FY2023 (\$92 million of project in FY21)
- SR 29 Projects (Five projects that cover SR29 in its entirety between Sunniland Nursery Rd and the Hendry County Line)
 - FPN 4175403 Add lanes and reconstruction from Sunniland Nursery Rd to S of Agriculture Way; \$3.6 million PE in FY201, \$0.6 million ENV in FY2019 and FY2023
 - FPN 4175404 Add lanes and reconstruction from S of Agricultural Way to CR846 (Immokalee Rd); \$4.1 million PE in FY2019, \$0.4 million ENV in FY2019 and FY2023
 - FPN 4175405 Add lanes and reconstruction from CR846 to N of New Market Rd N; \$6.3 million PE/ENV in FY2019s
 - FPN 4175406 Add lanes and reconstruction from N of New Market Rd N to SR82; \$4.2 million PE in

- FY2019, \$0.4 million ENV in FY2019 and FY2023
- FPN 4178784 Add lanes and reconstruction from SR82 to Hendry County Line; \$1.1 million ENV/ROW in FY2020 and FY2021, \$11.5 million CST in FY2023
-
- SR 82 Projects
 - FPN 4308481 Add lanes and reconstruction from Hendry County Line to Gator Slough Lane; \$3.4 million ENV/ROW in FY2019 and FY2020, \$44 million CST in FY2023
 - FPN 4308491 Add lanes and reconstruction from Gator Slough Lane to SR29; \$37 million CST/ENV/ROW/RRU in FY2019
- Airport Pulling Road – FPN 4404411 Add thru lanes from Vanderbilt (Beach) Road to Immokalee Road; \$3 million PE in FY2021

PUBLIC INVOLVEMENT

The MPO adopted an update of its Public Involvement Plan (PIP) in June 2013 and amended the update in March 2015 and February 2017. The PIP has the following public involvement requirements with respect to the TIP:

- 21-day public comment period prior to adoption by the MPO Board;
- News release issued prior to the start of the public comment period;
- Distribution of the Draft TIP to libraries and municipal offices including the MPO’s offices for public review and comment. Comment forms with QR codes are included in the distribution;
- Distribution of electronic copies of the Draft TIP upon request; and
- Posting the Draft TIP and comment forms on the MPO website.

Prior to MPO Board adoption, the TIP is endorsed by the MPO’s Technical Advisory Committee (TAC) and Citizens Advisory Committee (CAC). Press releases are issued for all MPO committee and Board meetings and all meetings are open to the public. This document was advertised via a press release, had a 21-day public comment period, was posted on the MPO’s website (<http://www.colliermopo.com>), was discussed at multiple committee meetings, and was distributed to libraries, municipal buildings and the MPO offices for public comment. See Appendix H for summary of public comments received.

TIP AMENDMENTS

Occasionally amendments need to be made to the TIP. There are three types of amendments. The first type, Administrative Modification, is used for minor cost changes in a project/project phase, minor changes to funding sources, minor changes to the initiation of any project phase, and correction of scrivener errors. Administrative Modifications do not need MPO Board approval and may be authorized by the MPO’s Executive Director.

The second type of amendment – a Roll Forward Amendment – is used to add projects to the TIP that were not added prior to June 30th but were added to the FDOT Work Program between July 1st and September 30th. Roll Forward Amendments are regularly needed largely as a result of the different state and federal fiscal years. Many of the projects that get rolled forward are FTA projects because these projects do not automatically roll forward in the TIP. Roll Forward Amendments do

not have any fiscal impact on the TIP.

A TIP Amendment is the third and most substantive type of amendment. These amendments are required when a project is added or deleted (excluding those projects added between July 1 and September 30), a project impacts the fiscal constraint of the TIP, or if there is a substantive change in the scope of a project. TIP Amendments require MPO Board approval, are posted on the MPO website along with comments forms, and comment forms are distributed throughout the Collier MPA to encourage public comment prior to MPO Board action. The Collier MPO's PIP defines the process to be followed for TIP amendments.

CERTIFICATION

The entire MPO process, including the TIP, must be certified by FDOT on an annual basis. The 2016 MPO process was certified by FDOT on March 22, 2017. The 2017 MPO certification process has begun and is expected to be complete before adoption of this TIP.

In addition, every four years the MPO must also be certified by the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA). The last quadrennial FHWA/FTA certification review included a site visit between September 12-14, 2016. FHWA and FTA issued the Collier MPO's final 2016 Certification Report in December 2016.

EXPLANATION OF PROJECT COSTS

Part I of the TIP contains all of the projects that are listed in the FY2019 – FY2023 TIP. The projects are divided into five categories: highways (including bridges, congestion management, bicycle and pedestrian, and maintenance), transportation planning, transit, transportation disadvantaged and aviation. Each project is illustrated on a separate project page. Future costs are presented in Year of Expenditure Dollars (YOE), which takes inflation into account. The inflation factors were developed by the State. Current and prior year costs are reflected in nominal dollars.

Projects often require multiple phases which may include any or all of the following: Project Development and Environment (PD&E), Design (PE), Environment (ENV), Right of Way acquisition (ROW), Railroad and Utilities (RRU), Construction (CST), Operations (OPS), Capital (CAP). Large projects are sometimes constructed in smaller segments and may be shown in multiple TIPs. When this happens, the project description (Letter D) will indicate that the current project is a segment/phase of a larger project. An example project sheet is shown on the next page as Figure 6.

- A – Federal Project Number (FPN)
- B – Location of project
- C – Denotes is project is on the SIS system
- D – Project description
- E – Prior, Future, and Total Project Cost; LRTP and TIP References (if needed)
- F – FDOT Work Summary
- G – Lead agency for project
- H – Project length, if applicable
- I – Project Phase, Fund Code Source and Funding Amounts by Year, by Phase, by Fund Source
- J – Map of project area

Figure 6 – Project Sheet Example

A	4178784	B	SR 29 FROM SR 82 TO HENDRY C/L					C	SIS
D	Project Description:	WIDEN FROM 2-4 LANES (one segment of larger project)					E	Prior Years Cost: 1,898,484 Future Years Cost: 0 Total Project Cost: 14,492,538 LRTP Ref: SIS PLAN APPENDIX A	
F	Work Summary:	ADD LANES & RECONSTRUCT							
G	Lead Agency:	FDOT					H	Length: 1.869	
	Phase	Fund	2018/19	2019/20	2020/21	2021/22	2022/23	Total	
	CST	ACNP	0	0	0	0	11,270,219	11,270,219	
	CST	D1	0	0	0	0	171,150	171,150	
I	ENV	D1	0	0	15,000	0	0	15,000	
	ENV	ACNP	0	400,000	0	0	50,000	450,000	
	INC	DDR	0	0	0	0	0	0	
	ROW	ACNP	0	0	687,685	0	0	687,685	
								0	
	Total		0	400,000	702,685	0	11,491,369	12,594,054	

J



PROJECT COST DISCLAIMER:
 The “Total Project Cost” amount displayed for of the federal and state funded projects in the TIP represents 10 years of programming in the FDOT Draft Tentative Work Program database for project on the Strategic Intermodal System (SIS) (FY2018 – FY2027), and 5 years of programming in the FDOT Draft Tentative Work Program for non-SIS projects (FY2018 – FY 2022) plus historical costs information for all projects having expenditures paid by FDOT prior to 2018. For a more comprehensive view of a specific project’s anticipated total budget cost for all phases of the project please refer to the LRTP.

4404391 BUS SHELTERS IN COLLIER COUNTY AT VARIOUS LOCATIONS

Project Description: CMC PRIORITY 2016-01; 9 SHELTERS; NO LOCATION PROVIDED
W/ BIKE RACK, BENCH AND TRASH RECEPTACLE

Prior Years Cost: N/A
 Future Years Cost: N/A
 Total Project Cost: N/A
 LRTP Ref: CFP-CMS/ITS PROJECTS P6-24 & APPENDIX A

Work Summary: PUBLIC TRANSPORTATION SHELTER

Lead Agency: COLLIER COUNTY **Length:** NA

Phase	Fund	2018/19	2019/20	2020/21	2021/22	2022/23	Total
CAP	FTAT	0	0	0	286,180	0	286,180
CAP	SU	0	0	0	286,180	0	286,180
							0
							0
							0
							0
							0
Total		0	0	0	572,360	0	572,360



Attachment: Draft TIP Project Sheets (4991 : Draft Narrative and Project Sheets for FY2019-2023

4101131 COLLIER COUNTY MPO TRANSIT PLANNING FTA SECTION 5305 (D)

Project Description: FTA Section 5305 Metropolitan Planning

Prior Years Cost: NA

Future Years Cost: NA

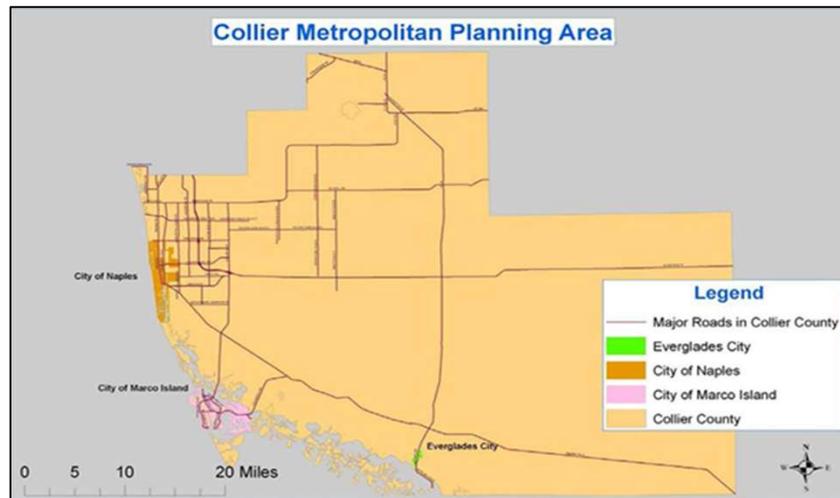
Total Project Cost: NA

Work Summary: MODAL SYSTEMS PLANNING

L RTP Ref: TRANSIT CFP P6-34

Lead Agency: MPO **Length:** NA

Phase	Fund	2018/19	2019/20	2020/21	2021/22	2022/23	Total
PLN	DPTO	9,437	9,720	9,877	9,877	0	38,911
PLN	DU	75,496	77,760	79,010	79,010	0	311,276
PLN	LF	9,437	9,720	9,877	9,877	0	38,911
							0
							0
							0
							0
Total		94,370	97,200	98,764	98,764	0	389,098



Attachment: Draft TIP Project Sheets (4991 : Draft Narrative and Project Sheets for FY2019-2023

4101201 COLLIER COUNTY FTA SECTION 5311 OPERATING ASSISTANCE

Project Description: Section 5311 Rural and Small Areas Paratransit Operating and Administrative Service
Work Summary: OPERATING/ADMIN ASSISTANCE
Lead Agency: COLLIER COUNTY **Length:** NA

Prior Years Cost: NA
 Future Years Cost: NA
 Total Project Cost: NA
 L RTP Ref: TRANSIT CFP P6-34

Phase	Fund	2018/19	2019/20	2020/21	2021/22	2022/23	Total
OPS	DU	295,600	404,500	366,460	364,222	404,525	1,835,307
OPS	LF	295,600	404,500	366,460	364,222	404,525	1,835,307
							0
							0
							0
							0
							0
Total		591,200	809,000	732,920	728,444	809,050	3,670,614



Attachment: Draft TIP Project Sheets (4991 : Draft Narrative and Project Sheets for FY2019-2023

4101391

COLLIER COUNTY STATE TRANSIT BLOCK GRANT OPERATING ASSISTANCE

Project Description: State Transit Fixed-Route Operating Assistance Block Grant

Prior Years Cost: NA

Future Years Cost: NA

Total Project Cost: NA

Work Summary: OPERATING FOR FIXED ROUTE

L RTP Ref: TRANSIT CFP P6-34

Lead Agency: COLLIER COUNTY **Length:** NA

Phase	Fund	2018/19	2019/20	2020/21	2021/22	2022/23	Total
OPS	DDR	0	0	0	0	906,623	906,623
OPS	DPTO	940,849	980,072	1,029,076	1,080,529	227,933	4,258,459
OPS	LF	940,849	980,072	1,029,076	1,080,529	1,134,556	5,165,082
							0
							0
							0
							0
Total		1,881,698	1,960,144	2,058,152	2,161,058	2,269,112	10,330,164



Attachment: Draft TIP Project Sheets (4991 : Draft Narrative and Project Sheets for FY2019-2023

410161

COLLIER COUNTY FTA SECTION 5307 CAPITAL ASSISTANCE

Project Description:

Prior Years Cost: NA
 Future Years Cost: NA
 Total Project Cost: NA
 L RTP Ref: TRANSIT CFP P6-34
 TIP Amendment: Roll Forward 9-9-16
 2013-0923

Work Summary: CAPITAL FOR FIXED ROUTE

Lead Agency: Length: NA

Phase	Fund	2018/19	2019/20	2020/21	2021/22	2022/23	Total
CAP	FTA	2,804,577	2,313,830	2,348,065	2,643,559	2,061,778	12,171,809
CAP	LF	701,144	578,458	587,016	660,890	515,445	3,042,953
							0
							0
							0
							0
							0
Total		3,505,721	2,892,288	2,935,081	3,304,449	2,577,223	15,214,762



Attachment: Draft TIP Project Sheets (4991 : Draft Narrative and Project Sheets for FY2019-2023

4101462 COLLIER COUNTY FTA SECTION 5307 OPERATING ASSISTANCE

Project Description: Fixed Route Operating Assistance

Prior Years Cost: NA

Future Years Cost: NA

Total Project Cost: NA

Work Summary: OPERATING FOR FIXED ROUTE

L RTP Ref: TRANSIT CFP P6-34

TIP Amendment: Roll Forward 9-9-16

Lead Agency: COLLIER COUNTY **Length:** NA

Phase	Fund	2018/19	2019/20	2020/21	2021/22	2022/23	Total
OPS	FTA	442,610	574,297	500,000	100,000	408,000	2,024,907
OPS	LF	442,610	574,297	500,000	100,000	408,000	2,024,907
							0
							0
							0
							0
							0
Total		885,220	1,148,594	1,000,000	200,000	816,000	4,049,814



Attachment: Draft TIP Project Sheets (4991 : Draft Narrative and Project Sheets for FY2019-2023

4340301 COLLIER CO./BONITA SPRINGS UZA FTA SECTION 5339 CAPITAL ASSISTANCE

Project Description: CMC Priority 2012-05; 2013-04

Prior Years Cost: NA
 Future Years Cost: NA
 Total Project Cost: NA
 L RTP Ref: CFP-CMS/ITS PROJECTS P6-24 & APPENDIX A
 TIP Amendment: 2015-0918
 2014-0912-1

Work Summary: CAPITAL FOR FIXED ROUTE

Lead Agency: COLLIER COUNTY **Length:** NA

Phase	Fund	2018/19	2019/20	2020/21	2021/22	2022/23	Total
CAP	FTA	353,562	365,428	347,686	299,327	299,889	1,665,892
CAP	LF	88,391	91,357	86,922	74,382	74,972	416,024
							0
							0
							0
							0
							0
Total		441,953	456,785	434,608	373,709	374,861	2,081,916



Attachment: Draft TIP Project Sheets (4991 : Draft Narrative and Project Sheets for FY2019-2023

4350081 COLLIER COUNTY AREA TRANSIT ITS PH IV

Project Description: CMC PRIORITY 2013-04;

Prior Years Cost: NA

Future Years Cost: NA

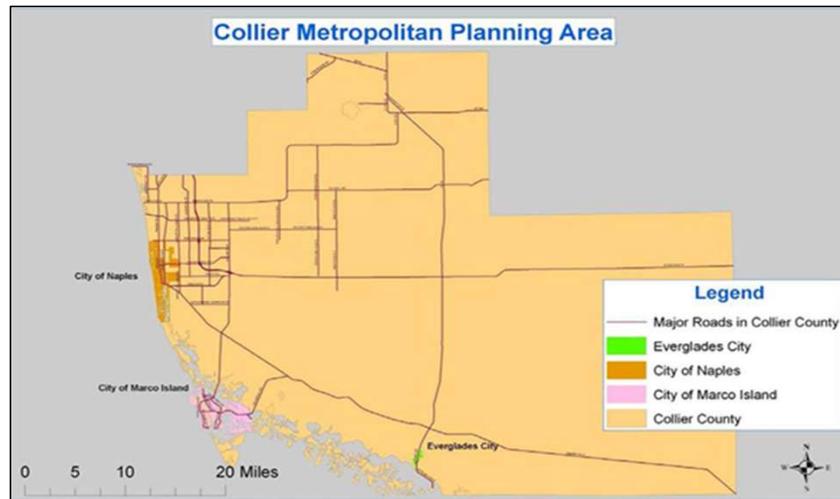
Total Project Cost: NA

Work Summary: URBAN CORRIDOR IMPROVEMENTS

L RTP Ref: CFP-CMS/ITS PROJECTS P6-24 & APPENDIX A

Lead Agency: COLLIER COUNTY **Length:** NA

Phase	Fund	2018/19	2019/20	2020/21	2021/22	2022/23	Total
CAP	FTAT	545,068	0	0	0	0	545,068
CAP	SU	545,068	0	0	0	0	545,068
							0
							0
							0
							0
							0
Total		1,090,136	0	0	0	0	1,090,136



Attachment: Draft TIP Project Sheets (4991 : Draft Narrative and Project Sheets for FY2019-2023

4350292 US41 FROM CR 846 (111TH AVE) TO NORTH OF 91ST AVE

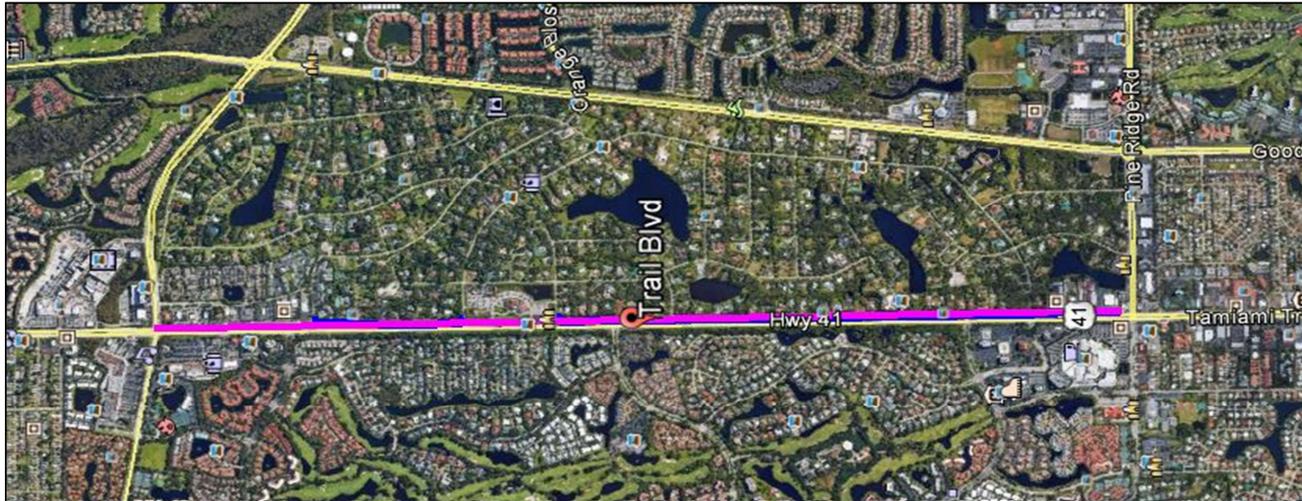
Project Description: CMC PRIORITY 2014-01 (RELATED FPN 4350291 SIDEWALK 2016/17)
INSTALL TOTAL OF 3 BUS SHELTERS (2 PENDING, 1 IN PLACE)

Prior Years Cost: NA
 Future Years Cost: NA
 Total Project Cost: NA
 L RTP Ref: CFP-CMS/ITS P6-24;
 APPENDICES A&D

Work Summary: PUBLIC TRANSPORTATION SHELTER

Lead Agency: COLLIER COUNTY **Length:** NA

Phase	Fund	2018/19	2019/20	2020/21	2021/22	2022/23	Total
CAP	FTAT	0	51,600	0	0	0	51,600
CAP	SU	0	51,600	0	0	0	51,600
							0
							0
							0
							0
							0
Total		0	103,200	0	0	0	103,200



Attachment: Draft TIP Project Sheets (4991 : Draft Narrative and Project Sheets for FY2019-2023

4418151 EVERGLADES AIRPARK SEAPLANE BASE DESIGN AND CONSTRUCT

Project Description:

Prior Years Cost: 0
 Future Years Cost: 0
 Total Project Cost: 1,100,000
 L RTP Ref: APPENDIX A REVENUE FORECASTS TABLE 3 P5

Work Summary: AVIATION PRESERVATION PROJECT

Lead Agency: COLLIER COUNTY **Length:** NA

Phase	Fund	2018/19	2019/20	2020/21	2021/22	2022/23	Total
CAP	DDR	0	630,000	0	0	0	630,000
CAP	DPTO	250,000	0	0	0	0	250,000
CAP	LF	62,500	157,500	0	0	0	220,000
							0
							0
							0
							0
Total		312,500	787,500	0	0	0	1,100,000



Attachment: Draft TIP Project Sheets (4991 : Draft Narrative and Project Sheets for FY2019-2023

4416711 EVERGLADES AIRPARK RUNWAY 15/33 REHABILITATION

Project Description:

Prior Years Cost: 0
 Future Years Cost: 0
 Total Project Cost: 2,000,000
 L RTP Ref: APPENDIX A REVENUE FORECASTS TABLE 3 P5

Work Summary: AVIATION PRESERVATION PROJECT

Lead Agency: COLLIER COUNTY **Length:** NA

Phase	Fund	2018/19	2019/20	2020/21	2021/22	2022/23	Total
CAP	DPTO	100,000	0	0	0	0	100,000
CAP	FAA	1,800,000	0	0	0	0	1,800,000
CAP	LF	100,000	0	0	0	0	100,000
							0
							0
							0
							0
Total		2,000,000	0	0	0	0	2,000,000



Attachment: Draft TIP Project Sheets (4991 : Draft Narrative and Project Sheets for FY2019-2023

4417831 IMMOKALEE ARPT TAXIWAY C EXTENSION

Project Description:

Prior Years Cost: 0
 Future Years Cost: 0
 Total Project Cost: 3,250,000
 L RTP Ref: APPENDIX A REVENUE FORECASTS TABLE 3 P5

Work Summary: AVIATION PRESERVATION PROJECT

Lead Agency: COLLIER COUNTY **Length:** NA

Phase	Fund	2018/19	2019/20	2020/21	2021/22	2022/23	Total
CAP	DDR	0	0	150,000	0	0	150,000
CAP	DPTO	0	12,500	0	0	0	12,500
CAP	FAA	0	225,000	2,700,000	0	0	2,925,000
CAP	LF	0	12,500	150,000	0	0	162,500
Total		0	250,000	3,000,000	0	0	3,250,000



Attachment: Draft TIP Project Sheets (4991 : Draft Narrative and Project Sheets for FY2019-2023

4417841

IMMOKALEE ARPT ENVIRONMENTAL STUDY FOR RUNWAY 9/27 EXTENSION

Project Description:

Prior Years Cost: 0
 Future Years Cost: 0
 Total Project Cost: 200,000
 L RTP Ref: APPENDIX A REVENUE FORECASTS TABLE 3 P5

Work Summary:

AVIATION ENVIRONMENTAL PROJECT

Lead Agency:

COLLIER COUNTY

Length: NA

Phase	Fund	2018/19	2019/20	2020/21	2021/22	2022/23	Total
CAP	DDR	0	0	0	10,000	0	10,000
CAP	FAA	0	0	0	180,000	0	180,000
CAP	LF	0	0	0	10,000	0	10,000
							0
							0
							0
							0
Total		0	0	0	200,000	0	200,000



Attachment: Draft TIP Project Sheets (4991 : Draft Narrative and Project Sheets for FY2019-2023

4336321 IMMOKALEE REGIONAL AIRPORT SECURITY ENHANCEMENTS

Project Description:

Prior Years Cost: 250,000
 Future Years Cost: 0
 Total Project Cost: 500,000
 L RTP Ref: APPENDIX A REVENUE FORECASTS TABLE 3 P5

Work Summary: AVIATION SECURITY PROJECT

Lead Agency: COLLIER COUNTY **Length:** NA

Phase	Fund	2018/19	2019/20	2020/21	2021/22	2022/23	Total
CAP	DDR	200,000	0	0	0	0	200,000
CAP	LF	50,000	0	0	0	0	50,000
							0
							0
							0
							0
							0
Total		250,000	0	0	0	0	250,000



Attachment: Draft TIP Project Sheets (4991 : Draft Narrative and Project Sheets for FY2019-2023

4348151 IMMOKALEE REG APT SECURITY ENHANCEMENTS

Project Description:

Prior Years Cost: 0
 Future Years Cost: 0
 Total Project Cost: 600,000
 L RTP Ref: APPENDIX A REVENUE FORECASTS TABLE 3 P5

Work Summary: AVIATION SECURITY PROJECT

Lead Agency: COLLIER COUNTY **Length:** NA

Phase	Fund	2018/19	2019/20	2020/21	2021/22	2022/23	Total
CAP	DPTO	0	480,000	0	0	0	480,000
CAP	LF	0	120,000	0	0	0	120,000
							0
							0
							0
							0
							0
Total		0	600,000	0	0	0	600,000



Attachment: Draft TIP Project Sheets (4991 : Draft Narrative and Project Sheets for FY2019-2023

4389771 IMMOKALEE REGIONAL ARPT REHABILITATE RUNWAY 18/36

Project Description:

Prior Years Cost: 0
 Future Years Cost: 0
 Total Project Cost: 6,757,500
 L RTP Ref: APPENDIX A REVENUE FORECASTS TABLE 3 P5

Work Summary: AVIATION PRESERVATION PROJECT

Lead Agency: COLLIER COUNTY **Length:** NA

Phase	Fund	2018/19	2019/20	2020/21	2021/22	2022/23	Total
CAP	DDR	1,000,000	1,600,000	2,806,000	0	0	5,406,000
CAP	LF	250,000	400,000	701,500	0	0	1,351,500
							0
							0
							0
							0
							0
Total		1,250,000	2,000,000	3,507,500	0	0	6,757,500



Attachment: Draft TIP Project Sheets (4991 : Draft Narrative and Project Sheets for FY2019-2023

4370631 MARCO ISLAND APT NEW TERMINAL BUILDING

Project Description:

Prior Years Cost: 1,510,275
 Future Years Cost: 0
 Total Project Cost: 7,735,275
 L RTP Ref: APPENDIX A REVENUE FORECASTS TABLE 3 P5

Work Summary: AVIATION CAPACITY PROJECT

Lead Agency: COLLIER COUNTY **Length:** NA

Phase	Fund	2018/19	2019/20	2020/21	2021/22	2022/23	Total
CAP	DDR	1,480,000	1,500,000	1,739,893	0	0	4,719,893
CAP	DPTO	0	0	260,107	0	0	260,107
CAP	LF	370,000	375,000	500,000	0	0	1,245,000
							0
							0
							0
							0
Total		1,850,000	1,875,000	2,500,000	0	0	6,225,000



Attachment: Draft TIP Project Sheets (4991 : Draft Narrative and Project Sheets for FY2019-2023

4389761 MARCO ISLAND AIRPORT AIRCRAFT APRON

Project Description:

Prior Years Cost: 0
 Future Years Cost: 0
 Total Project Cost: 1,600,000
 L RTP Ref: APPENDIX A REVENUE FORECASTS TABLE 3 P5

Work Summary: AVIATION CAPACITY PROJECT

Lead Agency: COLLIER COUNTY **Length:** NA

Phase	Fund	2018/19	2019/20	2020/21	2021/22	2022/23	Total
CAP	DDR	80,000	0	0	0	0	80,000
CAP	FAA	1,440,000	0	0	0	0	1,440,000
CAP	LF	80,000	0	0	0	0	80,000
							0
							0
							0
							0
Total		1,600,000	0	0	0	0	1,600,000



4391551 NAPLES MUNICIPAL ARPT TAXIWAY DELTA EXTENSION

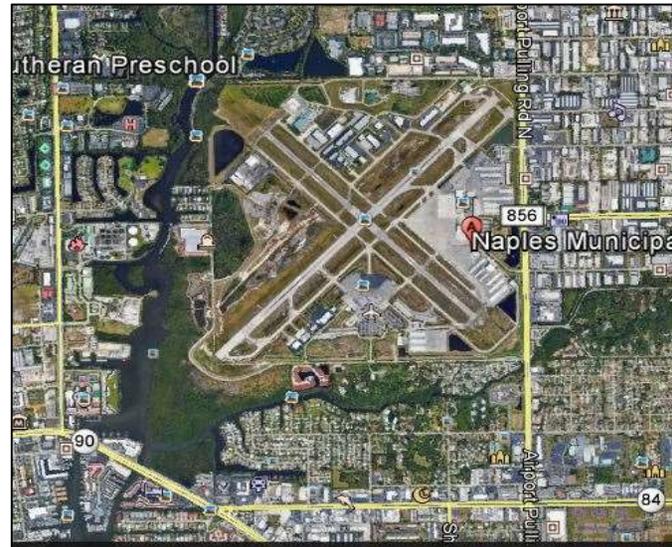
Project Description:

Prior Years Cost: 1,150,000
 Future Years Cost: 0
 Total Project Cost: 2,400,000
 L RTP Ref: APPENDIX A REVENUE FORECASTS TABLE 3 P5

Work Summary: AVIATION CAPACITY PROJECT

Lead Agency: NAPLES AIRPORT AUTHORITY **Length:** NA

Phase	Fund	2018/19	2019/20	2020/21	2021/22	2022/23	Total
CAP	DDR	400,000	600,000	0	0	0	1,000,000
CAP	LF	100,000	150,000				250,000
							0
							0
							0
							0
							0
Total		500,000	750,000	0	0	0	1,250,000



Attachment: Draft TIP Project Sheets (4991 : Draft Narrative and Project Sheets for FY2019-2023

4403081

NAPLES MUNICIPAL ARPT AIRCRAFT RESCUE AND FIRE FIGHTING FACILITY

Project Description:

Prior Years Cost: 1,000,000
 Future Years Cost: 0
 Total Project Cost: 2,800,000
 L RTP Ref: APPENDIX A REVENUE FORECASTS TABLE 3 P5

Work Summary:

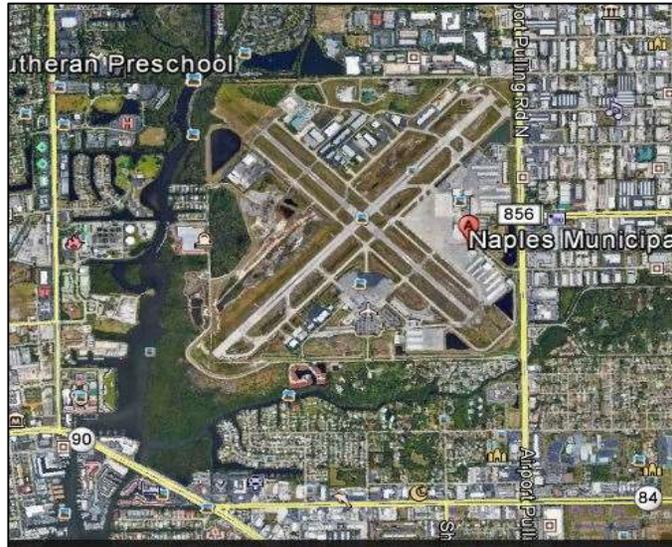
AVIATION SAFETY PROJECT

Lead Agency:

NAPLES AIRPORT AUTHORITY

Length: NA

Phase	Fund	2018/19	2019/20	2020/21	2021/22	2022/23	Total
CAP	DDR	1,440,000	0	0	0	0	1,440,000
CAP	LF	360,000	0	0	0	0	360,000
							0
							0
							0
							0
							0
Total		1,800,000	0	0	0	0	1,800,000



Attachment: Draft TIP Project Sheets (4991 : Draft Narrative and Project Sheets for FY2019-2023

4313661 NAPLES MUNICIPAL APT RELOCATE AND EXTEND TWY D NORTH

Project Description:

Prior Years Cost: 1,150,000

Future Years Cost:

Total Project Cost: 2,943,159

Work Summary:

AVIATION CAPACITY PROJECT

L RTP Ref:

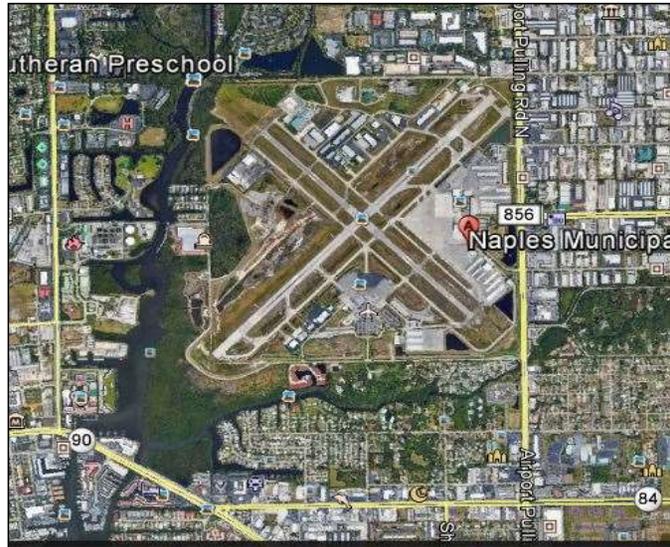
APPENDIX A REVENUE FORECASTS TABLE 3 P5

Lead Agency:

NAPLES AIRPORT AUTHORITY

Length: NA

Phase	Fund	2018/19	2019/20	2020/21	2021/22	2022/23	Total
CAP	DDR	1,000,000	324,574	0	0	0	1,324,574
CAP	DPTO	0	109,953	0	0	0	109,953
CAP	LF	250,000	108,632	0	0	0	358,632
							0
							0
							0
							0
Total		1,250,000	543,159	0	0	0	1,793,159



4416751 NAPLES MUNICIPAL AIRPORT SECURITY UPGRADES

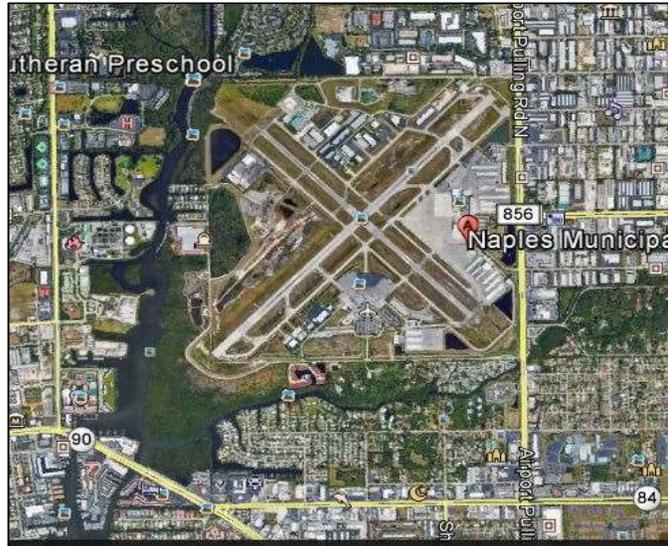
Project Description:

Prior Years Cost: 0
 Future Years Cost: 0
 Total Project Cost: 1,000,000
 L RTP Ref: APPENDIX A REVENUE FORECASTS TABLE 3 P5

Work Summary: AVIATION SECURITY PROJECT

Lead Agency: NAPLES AIRPORT AUTHORITY **Length:** NA

Phase	Fund	2018/19	2019/20	2020/21	2021/22	2022/23	Total
CAP	DDR	0	0	0	800,000	0	800,000
CAP	LF	0	0	0	200,000	0	200,000
							0
							0
							0
							0
Total		0	0	0	1,000,000	0	1,000,000



Attachment: Draft TIP Project Sheets (4991 : Draft Narrative and Project Sheets for FY2019-2023

4417651

NAPLES MUNICIPAL AIRPORT RUNWAY 5-23 DRAINAGE SWALE IMPROVEMENTS

Project Description:

Prior Years Cost: 0
 Future Years Cost: 0
 Total Project Cost: 3,000,000
 L RTP Ref: APPENDIX A REVENUE FORECASTS TABLE 3 P5

Work Summary:

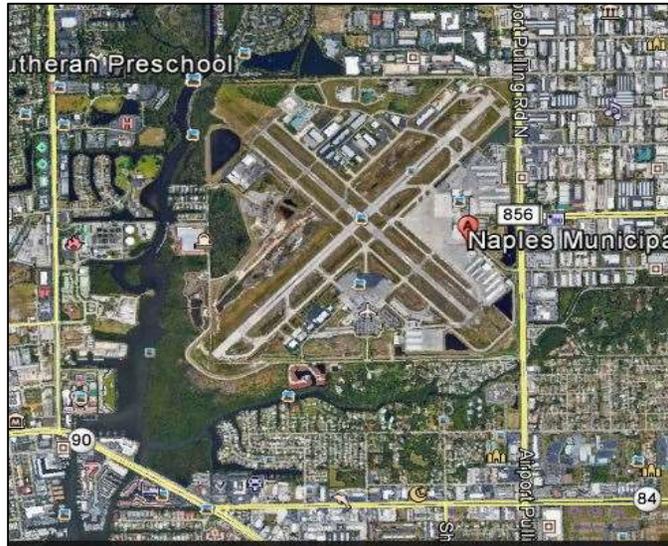
AVIATION PRESERVATION PROJECT

Lead Agency:

NAPLES AIRPORT AUTHORITY

Length: NA

Phase	Fund	2018/19	2019/20	2020/21	2021/22	2022/23	Total
CAP	DDR	0	150,000	0	0	0	150,000
CAP	FAA	0	2,700,000	0	0	0	2,700,000
CAP	LF	0	150,000	0	0	0	150,000
							0
							0
							0
							0
Total		0	3,000,000	0	0	0	3,000,000



Attachment: Draft TIP Project Sheets (4991 : Draft Narrative and Project Sheets for FY2019-2023

4418461 111TH AVE NORTH FROM BLUEBILL AVE BRIDGE TO 7TH ST NORTH

Project Description: BPAC PRIORITY 2014, 2015 & 2016-07
FOR 5' BIKE LANES

Prior Years Cost: 0
 Future Years Cost: 415,260
 Total Project Cost: 480,000
 LRTP Ref: CFP P6-25 & APPENDICES A & D

Work Summary: SIDEWALK TO BE CORRECTED TO BIKE LANES JULY 1 2018

Lead Agency: COLLIER COUNTY **Length:** 0.51

Phase	Fund	2018/19	2019/20	2020/21	2021/22	2022/23	Total
PE	SA	64,740	0	0	0	0	64,740
							0
							0
							0
							0
							0
							0
							0
Total		64,740	0	0	0	0	64,740



Attachment: Draft TIP Project Sheets (4991 : Draft Narrative and Project Sheets for FY2019-2023

4351191 49TH TERRACE SW FROM 20TH PLACE SW TO 19TH PLACE SW

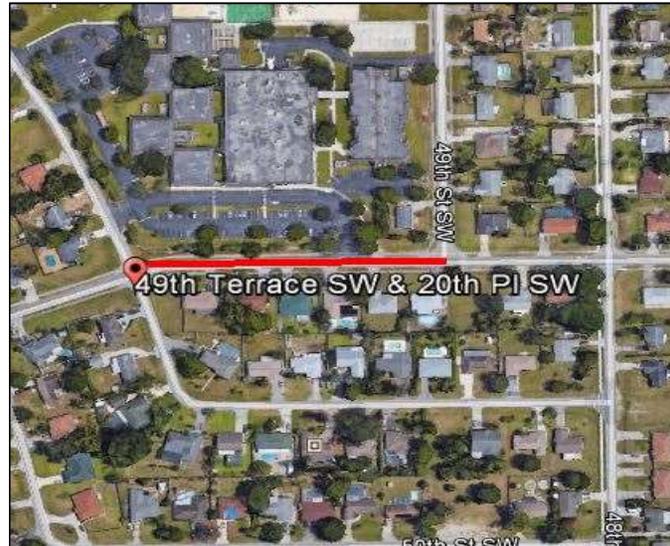
Project Description: BPAC PRIORITY 2013-02 5-SW ON EAST SIDE; GOLDEN GATE ESTATES

Prior Years Cost: 51,528
 Future Years Cost: 0
 Total Project Cost: 234,984
 LRTP Ref: CFP P6-25 & APPENDICES A & D

Work Summary: SIDEWALK

Lead Agency: COLLIER COUNTY **Length:** 0.11

Phase	Fund	2018/19	2019/20	2020/21	2021/22	2022/23	Total
CST	SA	14,852	0	0	0	0	14,852
CST	TALU	168,604	0	0	0	0	168,604
							0
							0
							0
							0
							0
Total		183,456	0	0	0	0	183,456



Attachment: Draft TIP Project Sheets (4991 : Draft Narrative and Project Sheets for FY2019-2023

4350191 AIRPORT-PULLING RD AND PINE RIDGE RD SIGNAL TIMING

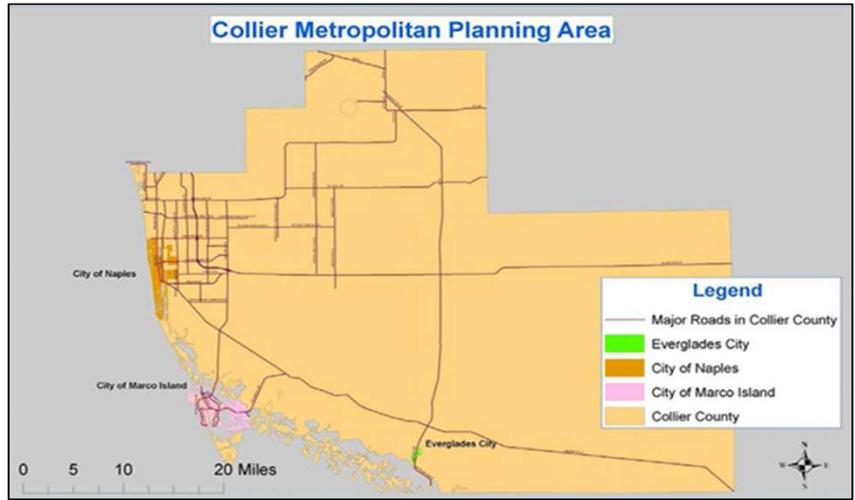
Project Description: CMC Priority 2015-03 (38 intersections)

Prior Years Cost: 0
 Future Years Cost: 0
 Total Project Cost: 452,560
 LRTP Ref: CFP-CMS/ITS PROJECTS P6-24 & APPENDIX A

Work Summary: ATMS - ARTERIAL TRAFFIC MANAGEMENT

Lead Agency: COLLIER COUNTY **Length:** NA

Phase	Fund	2018/19	2019/20	2020/21	2021/22	2022/23	Total
CST	ACSU	452,560	0	0	0	0	452,560
							0
							0
							0
							0
							0
							0
							0
Total		452,560	0	0	0	0	452,560



Attachment: Draft TIP Project Sheets (4991 : Draft Narrative and Project Sheets for FY2019-2023

4418781 BALD EAGLE DRIVE FROM COLLIER BLVD TO OLD MARCO LN

Project Description: BPAC PRIORITY 2014, 2014 & 2016-09

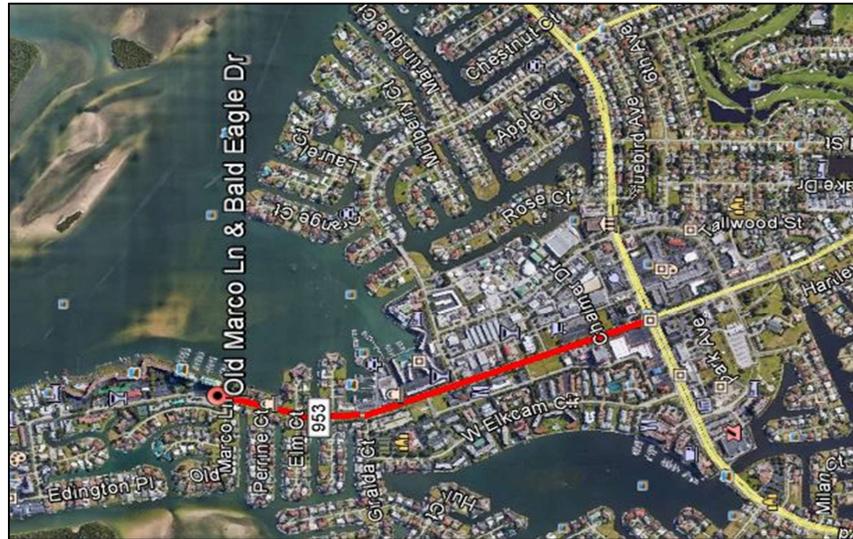
Prior Years Cost: 0
 Future Years Cost: 308,030
 Total Project Cost: 344,030
 L RTP Ref: CFP P6-25 & APPENDICES A & D

Work Summary: SIDEWALK

Lead Agency: MARCO ISLAND **Length:** 0.89

Phase	Fund	2018/19	2019/20	2020/21	2021/22	2022/23	Total
PE	SA	36,000	0	0	0	0	36,000
							0
							0
							0
							0
							0
Total		36,000	0	0	0	0	36,000

<-- North



Attachment: Draft TIP Project Sheets (4991 : Draft Narrative and Project Sheets for FY2019-2023

4369701 CR 92 (SAN MARCO RD) FROM S BARFIELD DR TO 400 FT E OF VINTAGE BAY)

Project Description: BPAC PRIORITY 2014-03

Prior Years Cost: 0

Future Years Cost: 0

Total Project Cost: 1,330,114

Work Summary: BIKE PATH/TRAIL

L RTP Ref: CFP P6-25 & APPENDICES A & D

Lead Agency: MARCO ISLAND

Length: 1.42

Phase	Fund	2018/19	2019/20	2020/21	2021/22	2022/23	Total
CST	SA	0	1,000	0	0	0	1,000
CST	SU	0	1,329,114	0	0	0	1,329,114
							0
							0
							0
							0
Total		0	1,330,114	0	0	0	1,330,114



Attachment: Draft TIP Project Sheets (4991 : Draft Narrative and Project Sheets for FY2019-2023

4371031

COLLIER TMC OPS FUND COUNTY WIDE

Project Description:

Prior Years Cost: NA
 Future Years Cost: NA
 Total Project Cost: NA
 L RTP Ref: CFP-CMS/ITS PROJECTS P6-24 & APPENDIX A

Work Summary: OTHER ITS

Lead Agency: COLLIER COUNTY

Length:

Phase	Fund	2018/19	2019/20	2020/21	2021/22	2022/23	Total
OPS	DS	81,000	81,000	81,000	81,000	81,000	405,000
							0
							0
							0
							0
							0
							0
Total		81,000	81,000	81,000	81,000	81,000	405,000



Attachment: Draft TIP Project Sheets (4991 : Draft Narrative and Project Sheets for FY2019-2023

4404351 COLLIER COUNTY TRAFFIC SIGNAL TIMING OPTIMIZATION AT VARIOUS LOCATIONS

Project Description: CMC PRIORITY 2016-02

Prior Years Cost: 0

Future Years Cost: 0

Total Project Cost: 401,000

Work Summary: TRAFFIC SIGNAL UPDATE

L RTP Ref: CFP-CMS/ITS PROJECTS P6-24 & APPENDIX A

Lead Agency: COLLIER COUNTY **Length:** NA

Phase	Fund	2018/19	2019/20	2020/21	2021/22	2022/23	Total
CST	SU	0	0	0	0	50,000	50,000
PE	SU	0	0	0	351,000	0	351,000
							0
							0
							0
							0
Total		0	0	0	351,000	50,000	401,000



Attachment: Draft TIP Project Sheets (4991 : Draft Narrative and Project Sheets for FY2019-2023

4350431

COLLIER COUNTY SCOUR COUNTERMEASURE AT VARIOUS LOCATIONS

Project Description:

Prior Years Cost: 34,398
 Future Years Cost: 0
 Total Project Cost: 2,003,443
 L RTP Ref: REVENUE PROJECTIONS
 APPENDIX A P5-5

Work Summary:

BRIDGE-REPAIR/REHABILITATION

Lead Agency:

FDOT

Length: NA

Phase	Fund	2018/19	2019/20	2020/21	2021/22	2022/23	Total
CST	DIH	0	0	0	142,107	0	142,107
CST	BRRP	0	0	0	1,626,938	0	1,626,938
PE	BRRP	0	0	200,000	0	0	200,000
							0
							0
							0
							0
Total		0	0	200,000	1,769,045	0	1,969,045



Attachment: Draft TIP Project Sheets (4991 : Draft Narrative and Project Sheets for FY2019-2023

4351101 CR 887 (OLD US 41) FROM US 41 TO LEE COUNTY LINE

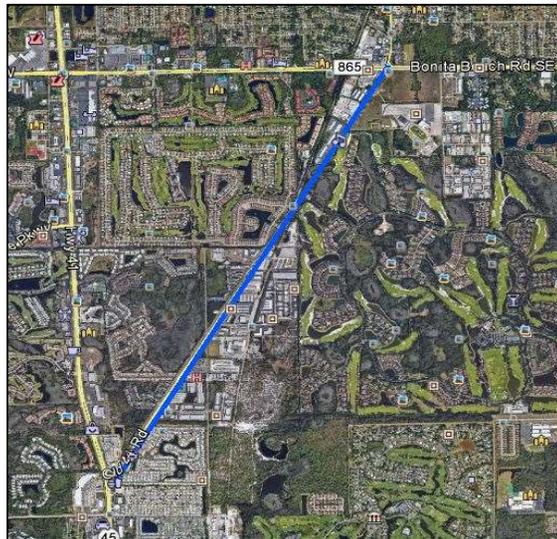
Project Description:

Prior Years Cost: 0
 Future Years Cost: 0
 Total Project Cost: 838,297
 LRTP Ref: CFP APPENDIX C

Work Summary: PD&E/EMO STUDY

Lead Agency: FDOT **Length:** 1.550

Phase	Fund	2018/19	2019/20	2020/21	2021/22	2022/23	Total
PDE	ACSU	838,297	0	0	0	0	838,297
							0
							0
							0
							0
							0
							0
Total		838,297	0	0	0	0	838,297



Attachment: Draft TIP Project Sheets (4991 : Draft Narrative and Project Sheets for FY2019-2023

4351181

CR 862 (VANDERBILT) FROM CR 901 TO GULF PAVILLION DR

Project Description: BPAC PRIORITY 2013-07B; 5' PAVED SHOULDER/KEYHOLES

Prior Years Cost: 56,973

Future Years Cost:

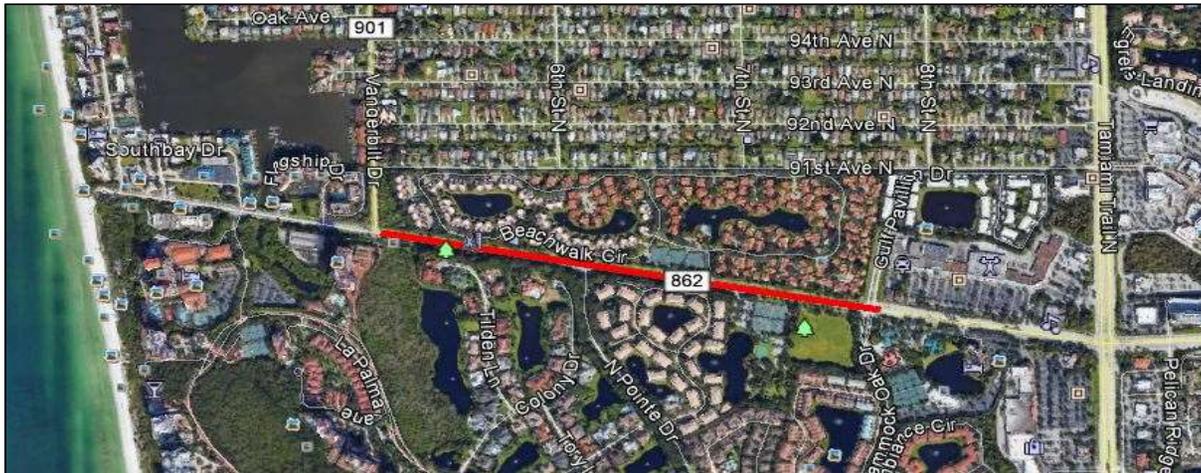
Total Project Cost: 397,056

Work Summary: BIKE LANE/SIDEWALK

L RTP Ref: CFP P6-25 & APPENDICES A & D

Lead Agency: COLLIER COUNTY **Length:** 0.67

Phase	Fund	2018/19	2019/20	2020/21	2021/22	2022/23	Total
CST	ACTA	282,367	0	0	0	0	282,367
CST	TALT	57,716	0	0	0	0	57,716
							0
							0
							0
							0
							0
Total		340,083	0	0	0	0	340,083



Attachment: Draft TIP Project Sheets (4991 : Draft Narrative and Project Sheets for FY2019-2023

4380911 COUNTY BARN ROAD FROM RATTLESNAKE HAMMOCK TO SR 84(DAVIS BLVD)

Project Description: BPAC PRIORITY 2017-01, 16-01, 15-01, 14-01, 13-05

Prior Years Cost: 0
 Future Years Cost: 0
 Total Project Cost: 2,055,376
 L RTP Ref: CFP P6-25 & APPENDICES A & D

Work Summary: BIKE PATH/TRAIL

Lead Agency: COLLIER COUNTY **Length:** 2.045

Phase	Fund	2018/19	2019/20	2020/21	2021/22	2022/23	Total
CST	SA	0	0	0	0	50,000	50,000
CST	SU	0	0	0	0	1,829,376	1,829,376
PE	SU	0	0	176,000	0	0	176,000
							0
							0
							0
							0
Total		0	0	176,000	0	1,879,376	2,055,376



Attachment: Draft TIP Project Sheets (4991 : Draft Narrative and Project Sheets for FY2019-2023

4380921 CR 901/VANDERBILT DR FROM VANDERBILT BEACH RD TO 109TH AVENUE N

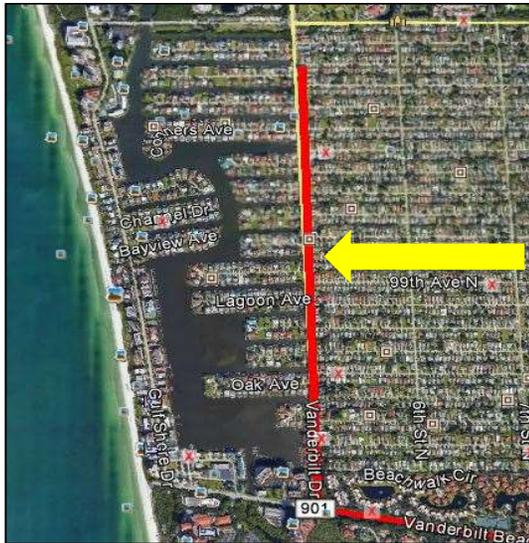
Project Description: BPAC PRIORITY 2017-02, 16-02, 15-02, 14-02

Prior Years Cost: 0
 Future Years Cost: 0
 Total Project Cost: 860,075
 LRTP Ref: CFP P6-25 & APPENDICES A & D

Work Summary: SIDEWALK

Lead Agency: COLLIER COUNTY **Length:** 1.214

Phase	Fund	2018/19	2019/20	2020/21	2021/22	2022/23	Total
CST	SU	0	0	0	0	709,075	709,075
PE	SU	0	0	151,000	0	0	151,000
							0
							0
							0
							0
							0
Total		0	0	151,000	0	709,075	860,075



Attachment: Draft TIP Project Sheets (4991 : Draft Narrative and Project Sheets for FY2019-2023

4051061 COLLIER MPO IDENTIFIED OPERATIONAL IMPROVEMENTS FUNDING

Project Description: MPO SU FUNDS HELD FOR COST OVER-RUNS, FUTURE PROGRAMMING
Work Summary: TRAFFIC OPS IMPROVEMENT
Lead Agency: FDOT **Length:** NA

Prior Years Cost: 0
 Future Years Cost: 0
 Total Project Cost: 10,776,412
 LRTP Ref: CFP-CMS/ITS PROJECTS P6-24 & APPENDIX A

Phase	Fund	2018/19	2019/20	2020/21	2021/22	2022/23	Total
CST	SU	2,912,494	2,687,473	1,164,301	2,944,621	1,067,523	10,776,412
							0
							0
							0
							0
							0
							0
Total		2,912,494	2,687,473	1,164,301	2,944,621	1,067,523	10,776,412



Attachment: Draft TIP Project Sheets (4991 : Draft Narrative and Project Sheets for FY2019-2023

4126661 COLLIER COUNTY TRAFFIC SIGNALS REIMBURSEMENT

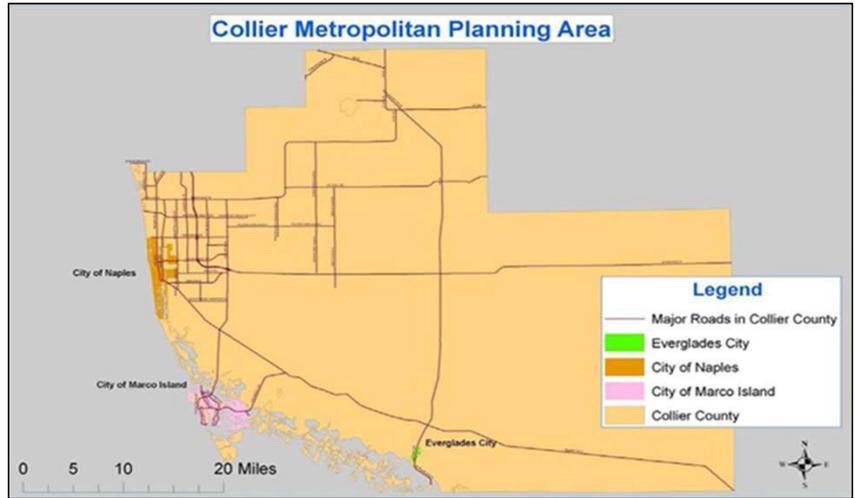
Project Description:

Prior Years Cost: NA
 Future Years Cost: NA
 Total Project Cost: NA
 LRTP Ref: REVENUE PROJECTIONS
 APPENDIX A P5-5

Work Summary: TRAFFIC SIGNALS

Lead Agency: COLLIER COUNTY **Length:** NA

Phase	Fund	2018/19	2019/20	2020/21	2021/22	2022/23	Total
OPS	DDR	298,216	337,826	376,650	414,316	455,747	1,882,755
							0
							0
							0
							0
							0
							0
Total		298,216	337,826	376,650	414,316	455,747	1,882,755



Attachment: Draft TIP Project Sheets (4991 : Draft Narrative and Project Sheets for FY2019-2023

4414801 EDEN PARK ELEMENTARY

Project Description: Safe Routes to School project (SRTS)
 South side of Carson Rd from Westclox to Carson Lakes Cir 6' SW

Prior Years Cost: 0
 Future Years Cost: 0
 Total Project Cost: 719,071
 L RTP Ref: CFP APPENDIX C

Work Summary: SIDEWALK

Lead Agency: COLLIER COUNTY **Length:** 0.75

Phase	Fund	2018/19	2019/20	2020/21	2021/22	2022/23	Total
CST	SR2T	0	0	0	663,333		663,333
PE	SR2T	55,738	0	0	0	0	55,738
							0
							0
							0
							0
							0
Total		55,738	0	0	663,333	0	719,071



4380931 GREEN BLVD FROM SANTA BARBARA BLVD TO SUNSHINE BLVD

Project Description: BPAC PRIORITY 2017-03, 16-03, 15-03, 14-06

Prior Years Cost: 0
 Future Years Cost: 0
 Total Project Cost: 1,310,670
 LRTP Ref: CFP P6-25 & APPENDICES A & D

Work Summary: BIKE LANE/SIDEWALK

Lead Agency: COLLIER COUNTY **Length:** 1.040

Phase	Fund	2018/19	2019/20	2020/21	2021/22	2022/23	Total
CST	SU	0	0	0	0	1,084,670	1,084,670
PE	WU	0	0	226,000	0	0	226,000
							0
							0
							0
							0
							0
Total		0	0	226,000	0	1,084,670	1,310,670



Attachment: Draft TIP Project Sheets (4991 : Draft Narrative and Project Sheets for FY2019-2023

4351161 GOLDEN GATE COLLECTOR SIDEWALKS VARIOUS LOCATONS

Project Description: BPAC PRIORITY 2013-04; 6' SW ON GGPKWY & SANTA BARBARA BLVD

Prior Years Cost: 124,625
 Future Years Cost: 0
 Total Project Cost: 735,557
 LRTP Ref: CFP P6-25 & APPENDIX C

Work Summary: SIDEWALK

Lead Agency: COLLIER COUNTY **Length:** 1.213

Phase	Fund	2018/19	2019/20	2020/21	2021/22	2022/23	Total
CST	ACTA	610,932	0	0	0	0	610,932
							0
							0
							0
							0
							0
							0
Total		610,932	0	0	0	0	610,932



Attachment: Draft TIP Project Sheets (4991 : Draft Narrative and Project Sheets for FY2019-2023

4349901 GOLDEN GATE VARIOUS LOCATIONS

Project Description: BPAC PRIORITY 2013-01; 51st, 20th SW

Prior Years Cost: 56,560
 Future Years Cost: 0
 Total Project Cost: 336,874
 LRTP Ref: CFP P6-25 & APPENDICES A & D

Work Summary: SIDEWALK

Lead Agency: COLLIER COUNTY **Length:** 0.50

Phase	Fund	2018/19	2019/20	2020/21	2021/22	2022/23	Total
CST	SA	56,716	0	0	0	0	56,716
CST	TALU	223,598	0	0	0	0	223,598
							0
							0
							0
							0
							0
Total		280,314	0	0	0	0	280,314



Attachment: Draft TIP Project Sheets (4991 : Draft Narrative and Project Sheets for FY2019-2023

4331851 HARBOUR DR FROM CRAYTON RD TO BINNACLE DR

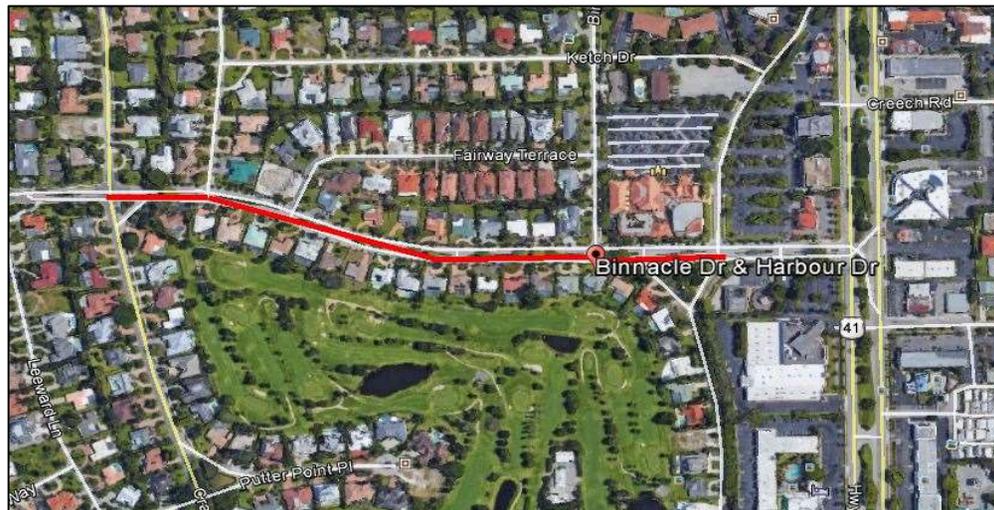
Project Description: BPAC PRIORITY 2012-3; 5' SW ON NORTH SIDE

Prior Years Cost: 110,779
 Future Years Cost: NA
 Total Project Cost: 644,691
 LRTP Ref: CFP P6-25 & APPENDICES A & D

Work Summary: SIDEWALK

Lead Agency: FDOT **Length:** 0.33

Phase	Fund	2018/19	2019/20	2020/21	2021/22	2022/23	Total
CST	SA	391,563	0	0	0	0	391,563
RRU	SA	142,349					142,349
							0
							0
							0
							0
							0
Total		533,912	0	0	0	0	533,912



Attachment: Draft TIP Project Sheets (4991 : Draft Narrative and Project Sheets for FY2019-2023

4258432

I-75 AT SR 951

SIS

Project Description: Ultimate interchange improvement. Part of larger project.
Work Summary: INTERCHANGE IMPROVEMENT

Prior Years Cost: 9,614,655
 Future Years Cost: 0
 Total Project Cost: 113,533,532
 LRTP Ref: CFP APPENDIX C

Lead Agency: FDOT **Length:** 0.651

Phase	Fund	2018/19	2019/20	2020/21	2021/22	2022/23	Total
CST	DSB2	0	0	88,155,297	0	0	88,155,297
CST	DIH	0	0	162,150	0	0	162,150
ENV	DDR	0	50,000	75,000	0	0	125,000
INC	DDR	0	0	0	0	2,800,000	2,800,000
PE	DDR	0	0	814,000	0	0	814,000
PE	DS	0	0	203,500	0	0	203,500
ROW	DSB2	7,586,343	1,421,587	0	0	0	9,007,930
RRU	DSB2	0	0	2,219,900	0	0	2,219,900
RRU	DI	0	0	431,100	0	0	431,100
Total		7,586,343	1,471,587	92,060,947	0	2,800,000	103,918,877



Attachment: Draft TIP Project Sheets (4991 : Draft Narrative and Project Sheets for FY2019-2023

4385841

I-75/ALLIGATOR ALLEY TOLL BOOTH LANDSCAPING

SIS

Project Description:

Prior Years Cost: 0
 Future Years Cost: 0
 Total Project Cost: 969,928
 L RTP Ref: P5-3, 5-5 & APPENDIX A

Work Summary:

LANDSCAPING

Lead Agency:

FDOT

Length: NA

Phase	Fund	2018/19	2019/20	2020/21	2021/22	2022/23	Total
CST	DDR	0	0	949,118	0	0	949,118
CST	DIH	0	0	10,810	0	0	10,810
PE	DIH	10,000	0	0	0	0	10,000
							0
							0
							0
							0
Total		10,000	0	959,928	0	0	969,928



Attachment: Draft TIP Project Sheets (4991 : Draft Narrative and Project Sheets for FY2019-2023

4411281

I-75 (SR 93) AT CR 886 (GOLDEN GATE PKWY)

SIS

Project Description:

Prior Years Cost: 0

Future Years Cost: 0

Total Project Cost: 1,442,340

L RTP Ref: P5-3, 5-5 & APPENDIX A

Work Summary:

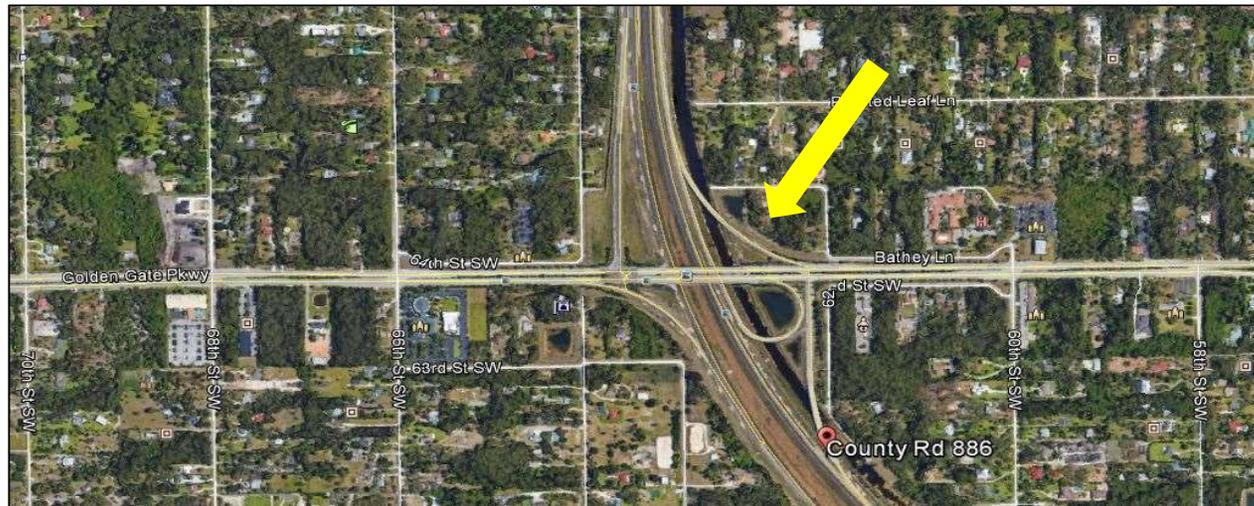
LANDSCAPING

Lead Agency:

FDOT

Location: NA

Phase	Fund	2018/19	2019/20	2020/21	2021/22	2022/23	Total
CST	DIH	0	0	10,810	0	0	10,810
CST	DDR	0	0	1,221,530	0	0	1,221,530
PE	DDR	200,000	0	0	0	0	200,000
PE	DIH	10,000	0	0	0	0	10,000
					0	0	0
					0	0	0
					0	0	0
Total		210,000	0	1,232,340	0	0	1,442,340



Attachment: Draft TIP Project Sheets (4991 : Draft Narrative and Project Sheets for FY2019-2023

4418791 INLET DRIVE FROM ADDISON CT TO TRAVIDA TERRACE

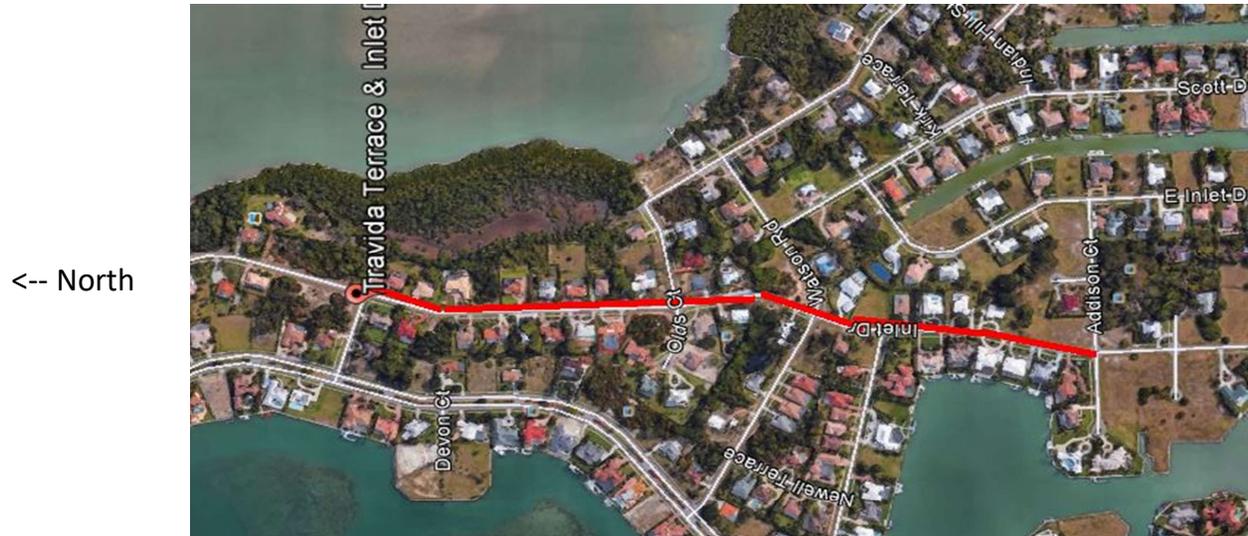
Project Description: 8' SHARED USE PATHWAY EAST & SOUTH SIDE
BPAC PRIORITY 2017-12, 16-12, 15-12

Prior Years Cost: 0
 Future Years Cost: 268,707
 Total Project Cost: 299,707
 LRTP Ref: CFP P6-25 & APPENDICES A & D

Work Summary: SIDEWALK

Lead Agency: MARCO ISLAND **Length:** 0.65

Phase	Fund	2018/19	2019/20	2020/21	2021/22	2022/23	Total
PE	SA	31,000	0	0	0	0 E	0
							0
							0
							0
							0
							0
Total		31,000	0	0	0	0	31,000



Attachment: Draft TIP Project Sheets (4991 : Draft Narrative and Project Sheets for FY2019-2023

4425192

I-75 (SR93) FROM E OF SR 951 TO COLLIER/LEE COUNTY LINE

SIS

Project Description:

Prior Years Cost: 0
 Future Years Cost: 0
 Total Project Cost: 3,040,000
 LRTP Ref: CFP APPENDIX C

Work Summary:

PD&E/EMO STUDY

Lead Agency:

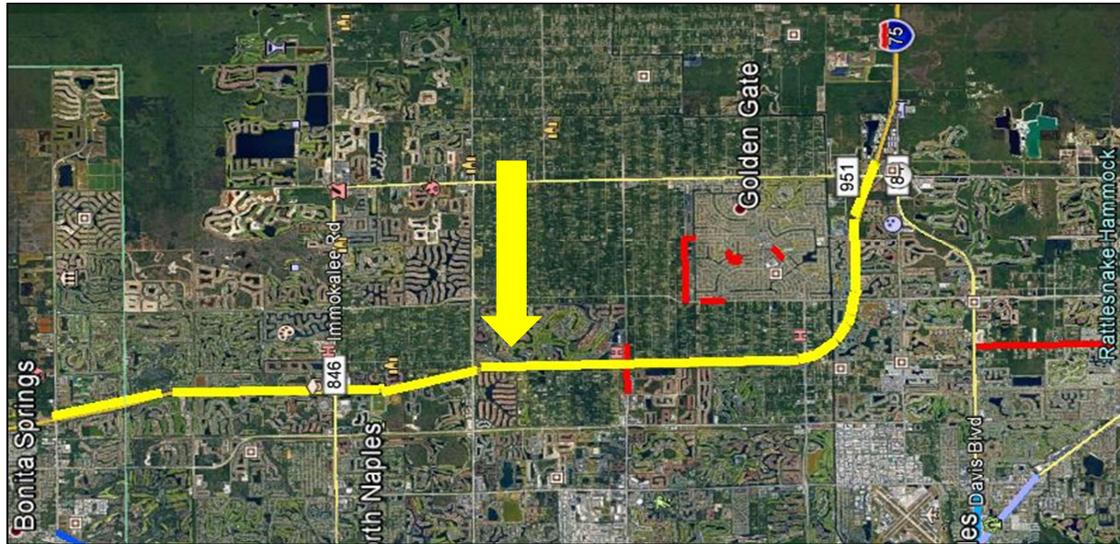
FDOT

Length:

13.176

Phase	Fund	2018/19	2019/20	2020/21	2021/22	2022/23	Total
PDE	DDR	3,000,000	0	0	0	0	3,000,000
PDE	DIH	40,000	0	0	0	0	40,000
							0
							0
							0
							0
							0
Total		3,040,000	0	0	0	0	3,040,000

<--North



Attachment: Draft TIP Project Sheets (4991 : Draft Narrative and Project Sheets for FY2019-2023

4418451 LAKE TRAFFORD ROAD FROM LITTLE LEAGUE ROAD TO LAUREL STREET

Project Description: BPAC PRIORITY 2017-13, 16-13, 15-03; 5' BIKE LANES

Prior Years Cost: 0

Future Years Cost: 596,010

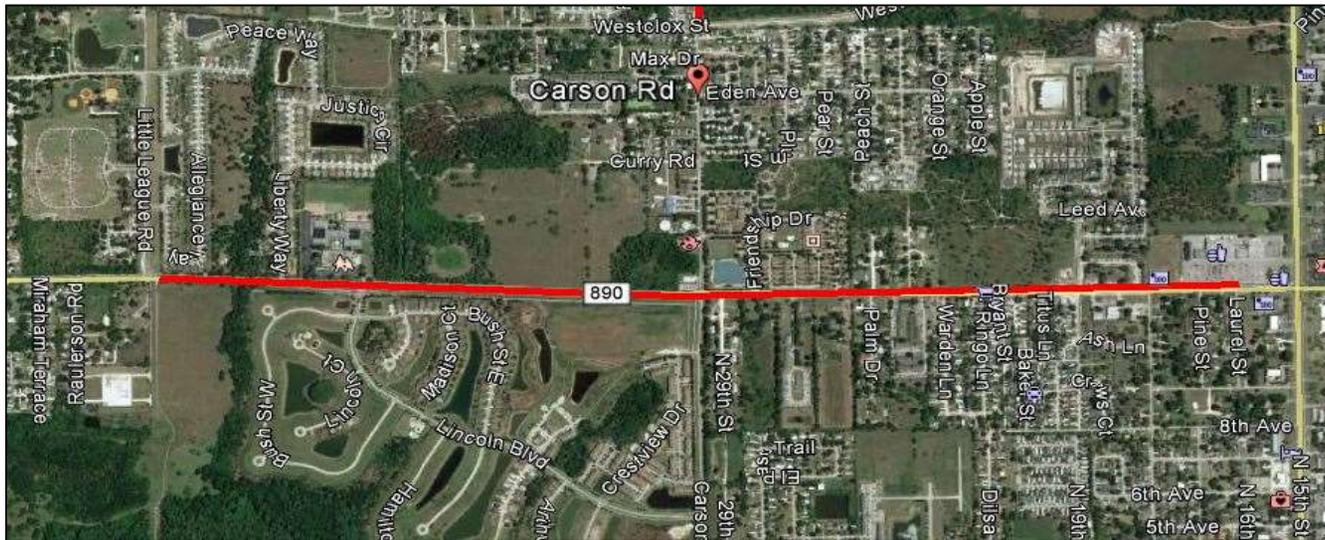
Total Project Cost: 688,255

Work Summary: BIKE LANE/SIDEWALK

L RTP Ref: CFP P6-25 & APPENDICES A & D

Lead Agency: COLLIER COUNTY **Length:** 0.91

Phase	Fund	2018/19	2019/20	2020/21	2021/22	2022/23	Total
PE	SA	92,245	0	0	0	0	92,245
							0
							0
							0
							0
							0
							0
Total		92,245	0	0	0	0	92,245



Attachment: Draft TIP Project Sheets (4991 : Draft Narrative and Project Sheets for FY2019-2023

4418452 LAKE TRAFFORD RD FROM CARSON RD TO LAUREL ST

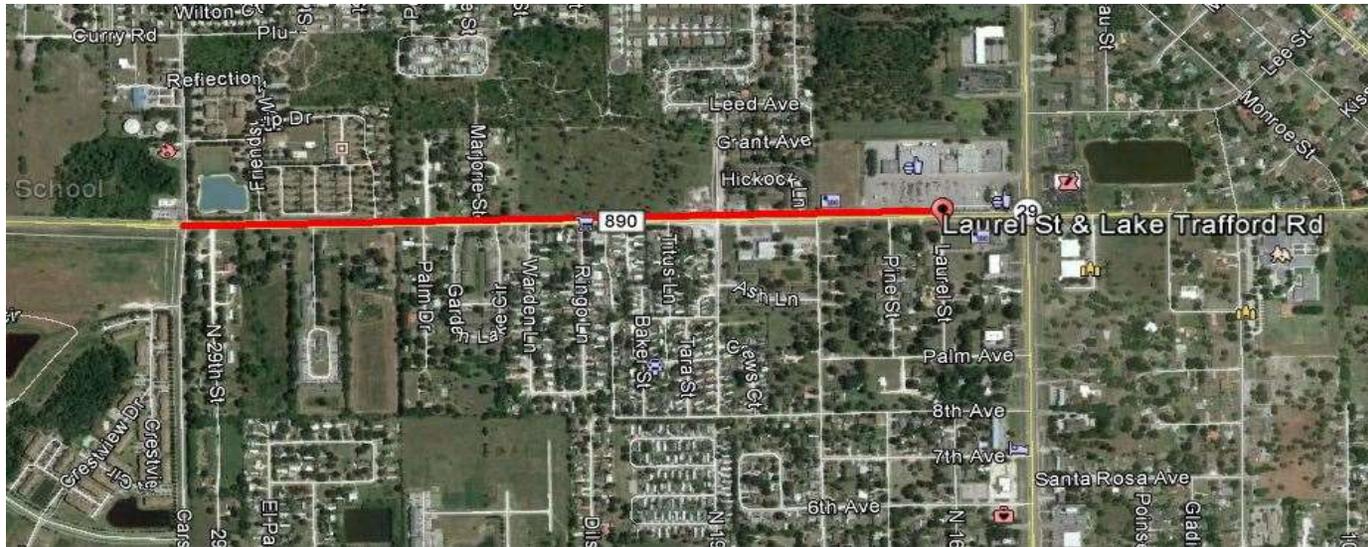
Project Description: BPAC PRIORITY 2017-11, 16-11, 15-11; 6' SW

Prior Years Cost: 0
 Future Years Cost: 421,591
 Total Project Cost: 492,800
 LRTP Ref: CFP P6-25 & APPENDICES A & D

Work Summary: SIDEWALK

Lead Agency: COLLIER COUNTY **Length:** 0.91

Phase	Fund	2018/19	2019/20	2020/21	2021/22	2022/23	Total
PE	SA	71,209	0	0	0	0	71,209
							0
							0
							0
							0
							0
							0
Total		71,209	0	0	0	0	71,209

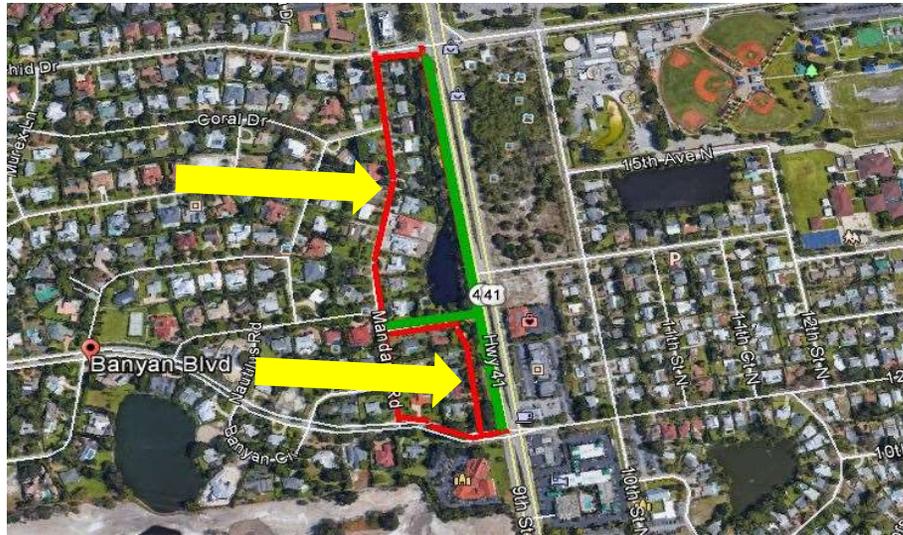


Attachment: Draft TIP Project Sheets (4991 : Draft Narrative and Project Sheets for FY2019-2023

4404361 MANDARIN GREENWAY SIDEWALKS AT VARIOUS LOCATIONS

Project Description: BPAC PRIORITY 2015 & 2016-08; SW LOOP ON 4 STREETS - ORCHARD DR, MAND, TO ORCHARD DR, SIDEWALKS
Work Summary: BIKE LANE/SIDEWALK
Lead Agency: NAPLES
 Prior Years Cost: 0
 Future Years Cost: 0
 Total Project Cost: 394,718
 L RTP Ref: CFP P6-25 & APPENDICES A & D

Phase	Fund	2018/19	2019/20	2020/21	2021/22	2022/23	Total
CST	TALU	0	0	0	0	349,407	349,407
PE	TALU	0	0	45,311	0	0	45,311
Total		0	0	45,311	0	349,407	394,718



Attachment: Draft TIP Project Sheets (4991 : Draft Narrative and Project Sheets for FY2019-2023

4371041 NAPLES TMC OPERATIONS FUNDING CITY WIDE

Project Description:

Prior Years Cost: 50,000
 Future Years Cost: 0
 Total Project Cost: 200,000
 LRTP Ref: CFP-CMS/ITS PROJECTS P6-24 & APPENDIX A
 TIP Amendment: Roll Forward 9-9-16

Work Summary: OTHER ITS

Lead Agency: NAPLES **Length** NA

Phase	Fund	2018/19	2019/20	2020/21	2021/22	2022/23	Total
OPS	DS	30,000	30,000	30,000	30,000	30,000	150,000
							0
							0
							0
							0
							0
							0
Total		30,000	30,000	30,000	30,000	30,000	150,000



Attachment: Draft TIP Project Sheets (4991 : Draft Narrative and Project Sheets for FY2019-2023

4371851 NAPLES BEACH ACCESS SIDEWALKS AT VARIOUS LOCATIONS

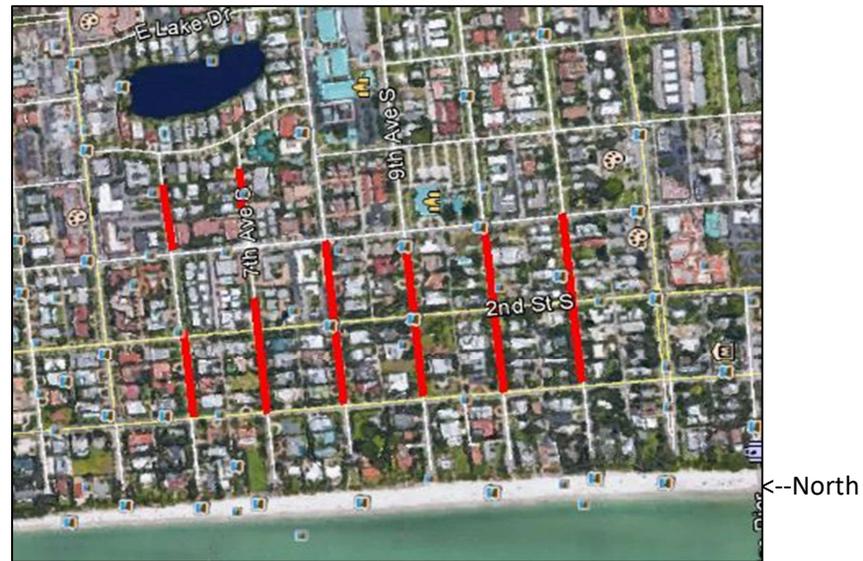
Project Description: BPAC PRIORITY 2014-07

Prior Years Cost: 522,531
 Future Years Cost: 0
 Total Project Cost: 1,662,856
 LRTP Ref: CFP P6-25 & APPENDICES A & D

Work Summary: SIDEWALK

Lead Agency: FDOT **Length:** 0.96

Phase	Fund	2018/19	2019/20	2020/21	2021/22	2022/23	Total
CST	SU	0	0	1,140,325			1,140,325
							0
							0
							0
							0
							0
							0
Total		0	0	1,140,325	0	0	1,140,325



Attachment: Draft TIP Project Sheets (4991 : Draft Narrative and Project Sheets for FY2019-2023

4351171 NORTH NAPLES SIDEWALKS AT VARIOUS LOCATIONS

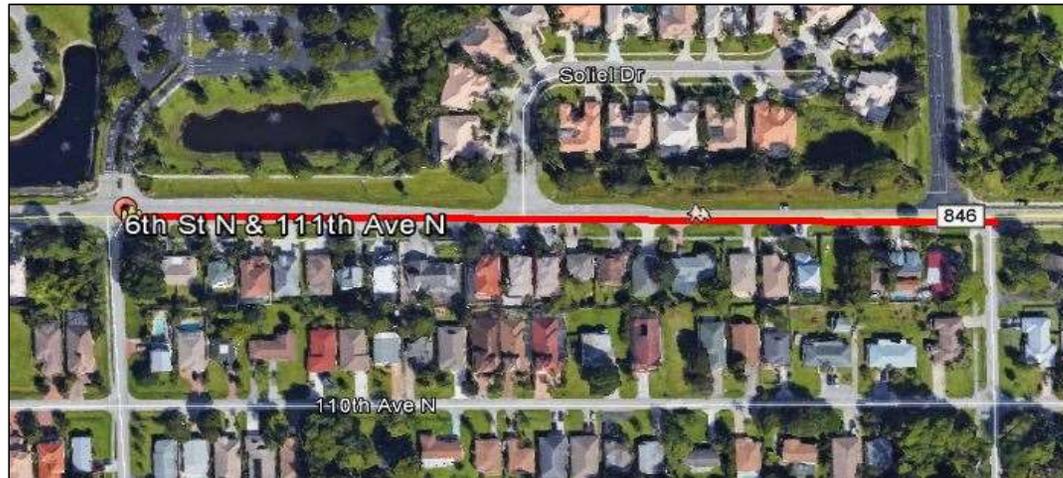
Project Description: BPAC PRIORITY 2013-06 & 2013-07; SWs GOODLETTE-FRANK, 111th ST

Prior Years Cost: 100,075
 Future Years Cost: 0
 Total Project Cost: 920,611
 L RTP Ref: CFP P6-25 & APPENDICES A & D

Work Summary: SIDEWALK

Lead Agency: COLLIER COUNTY **Length:** 1.248

Phase	Fund	2018/19	2019/20	2020/21	2021/22	2022/23	Total
CST	ACSU	263,903	0	0	0	0	263,903
CST	SU	556,633	0	0	0	0	556,633
							0
							0
							0
							0
							0
Total		820,536	0	0	0	0	820,536



Attachment: Draft TIP Project Sheets (4991 : Draft Narrative and Project Sheets for FY2019-2023

4331891 N COLLIER BLVD FROM E ELKCAM CIRCLE TO BUTTONWOOD COURT

Project Description: BPAC PRIORITY 2012-07

Prior Years Cost: 52,500

Future Years Cost: 0

Total Project Cost: 814,225

Work Summary: SIDEWALK

L RTP Ref: CFP P6-25 & APPENDICES A & D

Lead Agency: MARCO ISLAND

Length: 0.658

Phase	Fund	2018/19	2019/20	2020/21	2021/22	2022/23	Total
CST	LFP	0	105,146	0	0	0	105,146
CST	SU	0	656,579	0	0	0	656,579
							0
							0
							0
							0
							0
Total		0	761,725	0	0	0	761,725



Attachment: Draft TIP Project Sheets (4991 : Draft Narrative and Project Sheets for FY2019-2023

4136271 NAPLES TRAFFIC SIGNALS REIMBURSEMENT

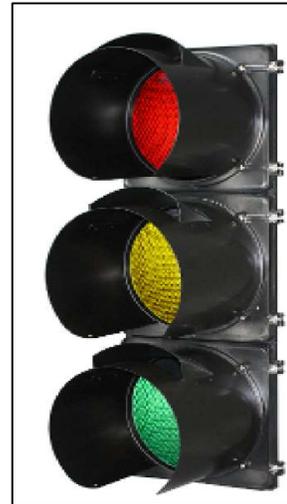
Project Description:

Prior Years Cost: NA
 Future Years Cost: NA
 Total Project Cost: NA
 LRTP Ref: REVENUE PROJECTIONS
 APPENDIX A P5-5

Work Summary: TRAFFIC SIGNALS

Lead Agency: FDOT **Length:**

Phase	Fund	2018/19	2019/20	2020/21	2021/22	2022/23	Total
OPS	DDR	113,940	135,149	153,706	169,076	185,984	757,855
							0
							0
							0
							0
							0
							0
Total		113,940	135,149	153,706	169,076	185,984	757,855



Attachment: Draft TIP Project Sheets (4991 : Draft Narrative and Project Sheets for FY2019-2023

4404251 PINE RIDGE RD FROM WHIPPOORWILL LANE TO NAPA BLVD

Project Description: BPAC PRIORITY 2017-06, 16-06, 15-06, 14-10; 6' SIDEWALK SOUTH SIDE

Prior Years Cost: 0
 Future Years Cost: 332,382
 Total Project Cost: 561,800
 L RTP Ref: CFP P6-25 & APPENDICES A & D

Work Summary: SIDEWALK

Lead Agency: FDOT **Length:** 0.78

Phase	Fund	2018/19	2019/20	2020/21	2021/22	2022/23	Total
PE	SU	0	0	0	229,418	0	229,418
							0
							0
							0
							0
							0
							0
Total		0	0	0	229,418	0	229,418



Attachment: Draft TIP Project Sheets (4991 : Draft Narrative and Project Sheets for FY2019-2023

4404371 SOUTH GOLF DR FROM GULF SHORE BLVD TO W US 41

Project Description: BPAC PRIORITY 2017-05, 16-05, 15-05, 14-09

Prior Years Cost: 0
 Future Years Cost: NA
 Total Project Cost: NA
 LRTP Ref: CFP P6-25 & APPENDICES A & D

Work Summary: BIKE LANE/SIDE WALK

Lead Agency: NAPLES **Length:** 0.75

Phase	Fund	2018/19	2019/20	2020/21	2021/22	2022/23	Total
PE	SU	0	0	0	279,363	0	279,363
							0
							0
							0
							0
							0
							0
Total		0	0	0	279,363	0	279,363



Attachment: Draft TIP Project Sheets (4991 : Draft Narrative and Project Sheets for FY2019-2023

4404381 SAN MARCO RD FROM VINTAGE BAY DRIVE TO GOODLAND RD

Project Description: BPAC Priority: 2016-04, 15-04
 REMOVE SW REPLACE 8' SHARED USE PATH SOUTH SIDE

Prior Years Cost: 0
 Future Years Cost: 0
 Total Project Cost: 695,062
 L RTP Ref: CFP P6-25 & APPENDICES A & D

Work Summary: BIKE PATH/TRAIL

Lead Agency: MARCO ISLAND **Length:** 1.440

Phase	Fund	2018/19	2019/20	2020/21	2021/22	2022/23	Total
CST	SU	0	0	0	650,062	0	650,062
PE	LF	0	45,000	0	0	0	45,000
							0
							0
							0
							0
							0
Total		0	45,000	0	650,062	0	695,062



Attachment: Draft TIP Project Sheets (4991 : Draft Narrative and Project Sheets for FY2019-2023

4379251 SIGNAL TIMING COUNTY ROADS AT VARIOUS LOCATIONS

Project Description: CMC PRIORITY 2015-03

Prior Years Cost: 0

Future Years Cost: 0

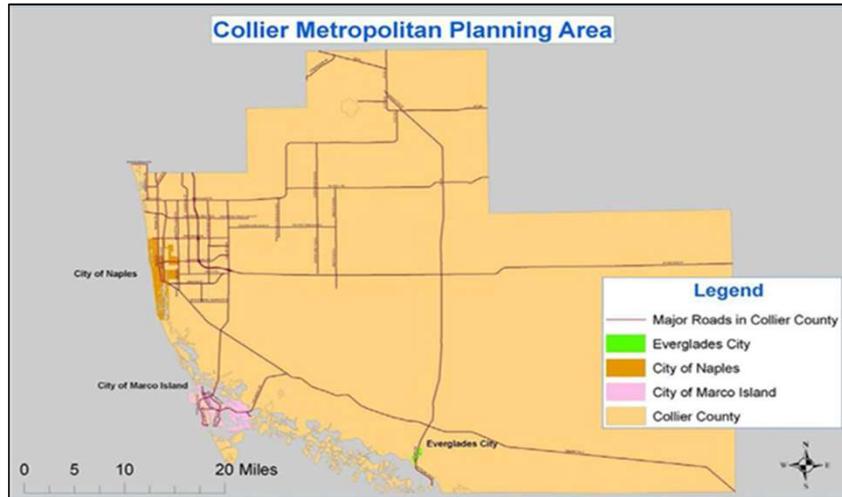
Total Project Cost: 452,560

Work Summary: TRAFFIC SIGNAL UPDATE

L RTP Ref: CFP-CMS/ITS PROJECTS P6-24 & APPENDIX A

Lead Agency: COLLIER COUNTY **Length:** NA

Phase	Fund	2018/19	2019/20	2020/21	2021/22	2022/23	Total
CST	SU	0	0	452,560	0	0	452,560
							0
							0
							0
							0
							0
							0
Total		0	0	452,560	0	0	452,560



Attachment: Draft TIP Project Sheets (4991 : Draft Narrative and Project Sheets for FY2019-2023

4379261 SIGNAL TIMING US41 FROM SR951/COLLIER BLVD TO OLD US41

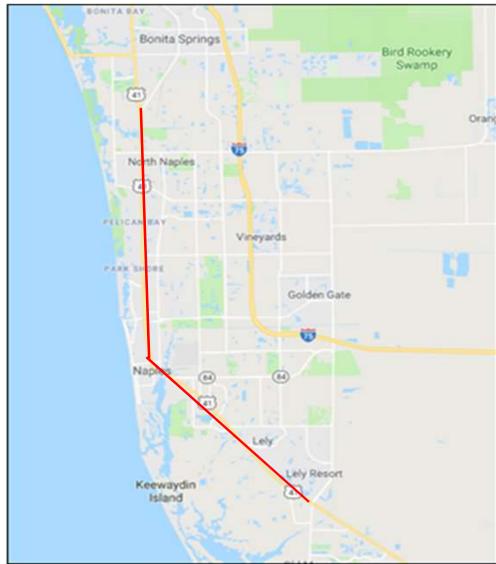
Project Description: CMC PRIORITY 2014-04, 2015-01

Prior Years Cost: 0
 Future Years Cost: 0
 Total Project Cost: 516,200
 L RTP Ref: CFP-CMS/ITS PROJECTS P6-24 & APPENDIX A

Work Summary: TRAFFIC SIGNAL UPDATE

Lead Agency: COLLIER COUNTY **Length:** 19.96

Phase	Fund	2018/19	2019/20	2020/21	2021/22	2022/23	Total
CST	SU	0	0	516,200	0	0	516,200
							0
							0
							0
							0
							0
							0
Total		0	0	516,200	0	0	516,200



Attachment: Draft TIP Project Sheets (4991 : Draft Narrative and Project Sheets for FY2019-2023

4415611

SR 90 FROM WHISTLER'S COVE TO COLLIER BLVD

SIS

Project Description:

Prior Years Cost: 10,000
 Future Years Cost: 0
 Total Project Cost: 9,830,884
 L RTP Ref: REVENUE PROJECTIONS P5
 5 APPENDIX A

Work Summary:

RESURFACING

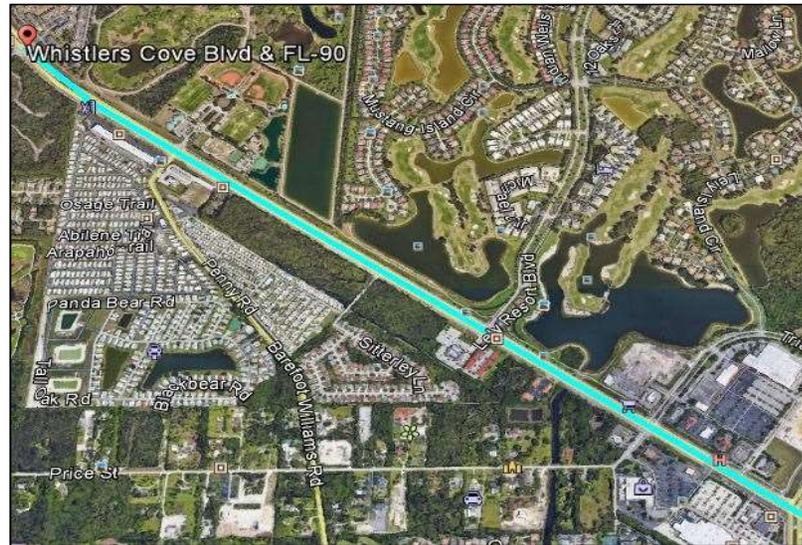
Lead Agency:

FDOT

Length:

1.38

Phase	Fund	2018/19	2019/20	2020/21	2021/22	2022/23	Total
CST	DDR	0	0	0	9,069,972	0	9,069,972
CST	DIH	0	0	0	44,400	0	44,400
CST	DS	0	0	0	706,512	0	706,512
							0
							0
							0
							0
Total		0	0	0	9,820,884	0	9,820,884



Attachment: Draft TIP Project Sheets (4991 : Draft Narrative and Project Sheets for FY2019-2023

4175403

SR 29 FROM SUNNILAND NURSERY ROAD TO S OF AGRICULTURE WAY

SIS

Project Description: WIDEN FROM 2-4 LANES (one segment of larger project)

Prior Years Cost: 0

Future Years Cost: 0

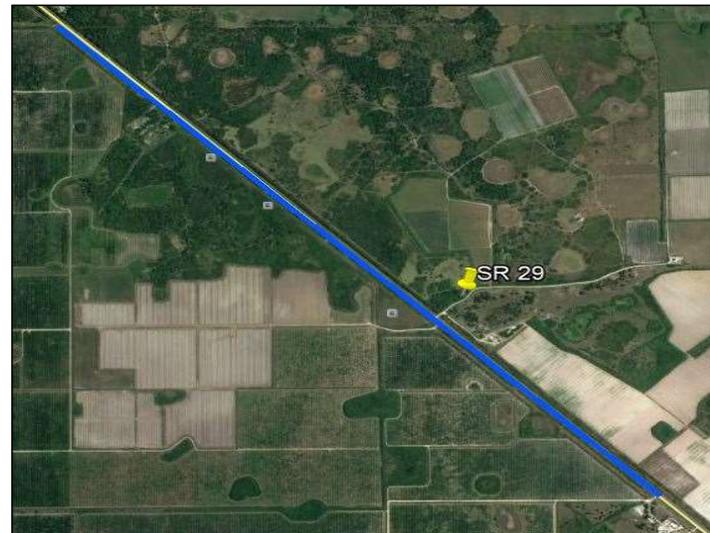
Total Project Cost: 4,125,000

Work Summary: ADD LANES & RECONSTRUCT

L RTP Ref: SIS PLAN APPENDIX A

Lead Agency: FDOT **Length:** 2.548

Phase	Fund	2018/19	2019/20	2020/21	2021/22	2022/23	Total
ENV	DDR	50,000	0	0	0	500,000	550,000
PE	SA	3,575,000	0	0	0	0	3,575,000
							0
							0
							0
							0
							0
Total		3,625,000	0	0	0	500,000	4,125,000



Attachment: Draft TIP Project Sheets (4991 : Draft Narrative and Project Sheets for FY2019-2023

4175404

SR 29 FROM S OF AGRICULTURE WAY TO CR 846 E

SIS

Project Description: WIDEN FROM 2-4 LANES (one segment of larger project)
CR 846 E IS AIRPORT RD

Prior Years Cost: 0
 Future Years Cost: 0
 Total Project Cost: 4,445,000
 LRTP Ref: SIS PLAN APPENDIX A

Work Summary: ADD LANES & RECONSTRUCT

Lead Agency: FDOT **Length:** 2.251

Phase	Fund	2018/19	2019/20	2020/21	2021/22	2022/23	Total
ENV	DDR	100,000	0	0	0	270,000	370,000
PE	SA	4,075,000	0	0	0	0	4,075,000
							0
							0
							0
							0
							0
Total		4,175,000	0	0	0	270,000	4,445,000



Attachment: Draft TIP Project Sheets (4991 : Draft Narrative and Project Sheets for FY2019-2023

4175405 SR 29 FROM CR 846 E TO N OF NEW MARKET ROAD N

SIS

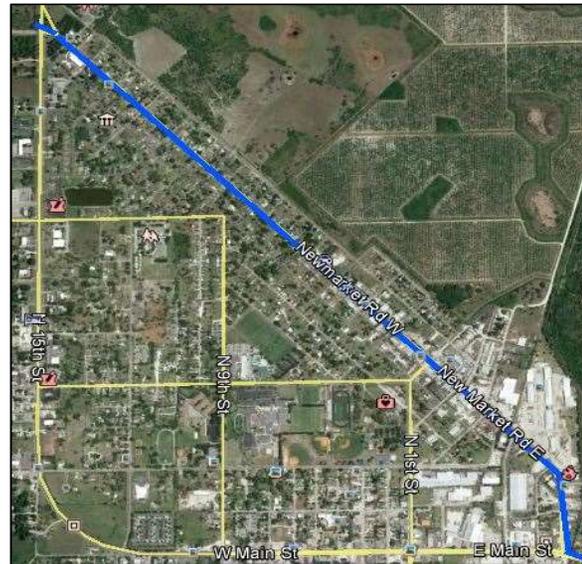
Project Description: WIDEN FROM 2-4 LANES (one segment of larger project)

Prior Years Cost: 0
 Future Years Cost: 0
 Total Project Cost: 6,310,000
 LRTP Ref: SIS PLAN APPENDIX A

Work Summary: ADD LANES & RECONSTRUCT

Lead Agency: FDOT **Length:** 3.484

Phase	Fund	2018/19	2019/20	2020/21	2021/22	2022/23	Total
ENV	DDR	60,000	0	0	0	0	60,000
PE	DDR	4,955,831	0	0	0	0	4,955,831
PE	DIH	250,000	0	0	0	0	250,000
PE	DS	1,044,169					1,044,169
							0
							0
							0
Total		6,310,000	0	0	0	0	6,310,000



Attachment: Draft TIP Project Sheets (4991 : Draft Narrative and Project Sheets for FY2019-2023

4175406

SR 29 FROM N OF NEW MARKET RD N ROAD TO SR 82

SIS

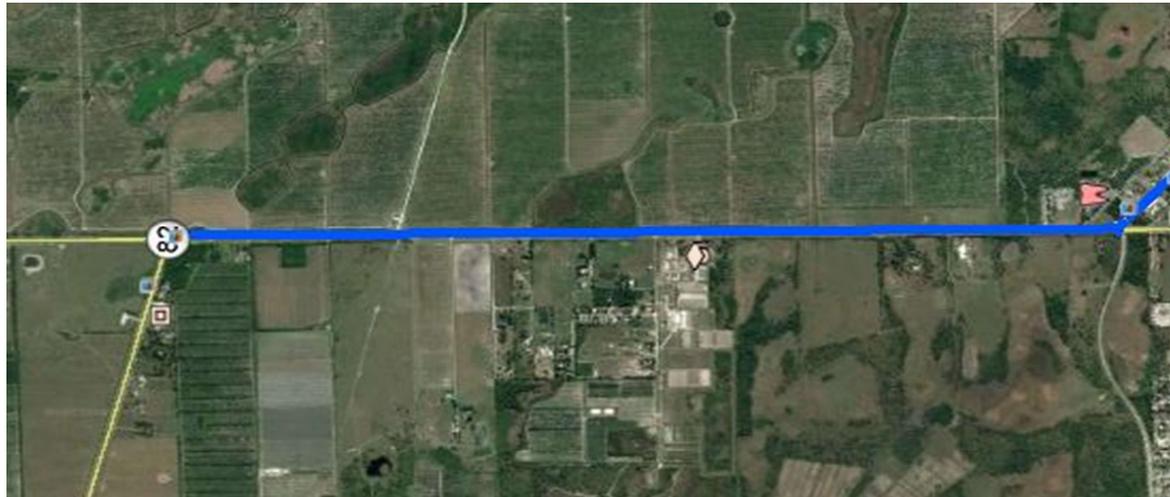
Project Description: WIDEN FROM 2-4 LANES (one segment of larger project)

Prior Years Cost: 0
 Future Years Cost: 0
 Total Project Cost: 4,572,445
 LRTP Ref: SIS PLAN APPENDIX A

Work Summary: ADD LANES & RECONSTRUCT

Lead Agency: FDOT **Length:** 3.037

Phase	Fund	2018/19	2019/20	2020/21	2021/22	2022/23	Total
ENV	DDR	20,000	0	0	0	380,000	400,000
PE	DDR	415,747	0	0	0	0	415,747
PE	REPE	3,656,698	0	0	0	0	3,656,698
PE	SA	100,000	0	0	0	0	100,000
							0
							0
							0
Total		4,192,445	0	0	0	380,000	4,572,445



<--North

Attachment: Draft TIP Project Sheets (4991 : Draft Narrative and Project Sheets for FY2019-2023

4178784

SR 29 FROM SR 82 TO HENDRY C/L

SIS

Project Description: WIDEN FROM 2-4 LANES (one segment of larger project)

Prior Years Cost: 1,898,484
 Future Years Cost: 0
 Total Project Cost: 14,492,538
 LRTP Ref: SIS PLAN APPENDIX A

Work Summary: ADD LANES & RECONSTRUCT

Lead Agency: FDOT **Length:** 1.869

Phase	Fund	2018/19	2019/20	2020/21	2021/22	2022/23	Total
CST	ACNP	0	0	0	0	11,270,219	11,270,219
CST	D1	0	0	0	0	171,150	171,150
ENV	D1	0	0	15,000	0	0	15,000
ENV	ACNP	0	400,000	0	0	50,000	450,000
INC	DDR	0	0	0	0	0	0
ROW	ACNP	0	0	687,685	0	0	687,685
Total		0	400,000	702,685	0	11,491,369	12,594,054



Attachment: Draft TIP Project Sheets (4991 : Draft Narrative and Project Sheets for FY2019-2023

4348571 SR 951 OVER BIG MARCO PASS(JUDGE JOLLY MEMORIAL BRIDGE)

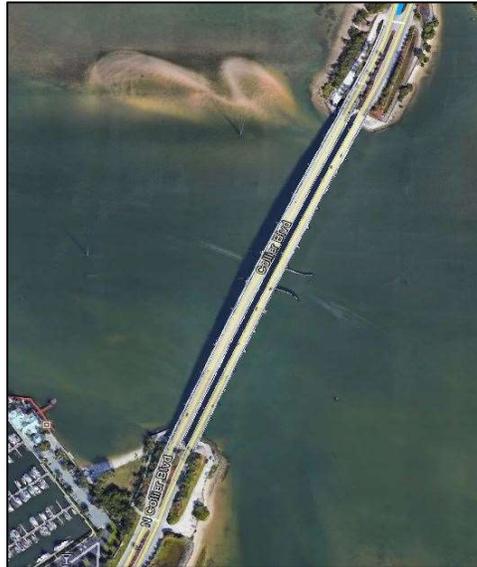
Project Description:

Prior Years Cost: 0
 Future Years Cost: 0
 Total Project Cost: 2,200,424
 L RTP Ref: REVENUE PROJECTIONS P5
 5 APPENDIX A

Work Summary: BRIDGE REPAIR/REHABILITATION

Lead Agency: FDOT **Length:** 0.302

Phase	Fund	2018/19	2019/20	2020/21	2021/22	2022/23	Total
CST	DIH	0	0	21,620	0	0	21,620
CST	BRRP	0	0	1,898,804	0	0	1,898,804
ENV	BRRP	0	10,000	0	0	0	10,000
PE	BRRP	0	250,000	0	0	0	250,000
PE	DIH	0	20,000	0	0	0	20,000
							0
							0
Total		0	280,000	1,920,424	0	0	2,200,424



Attachment: Draft TIP Project Sheets (4991 : Draft Narrative and Project Sheets for FY2019-2023

4308481

SR 82 FROM HENDRY COUNTY LINE TO GATOR SLOUGH LANE

SIS

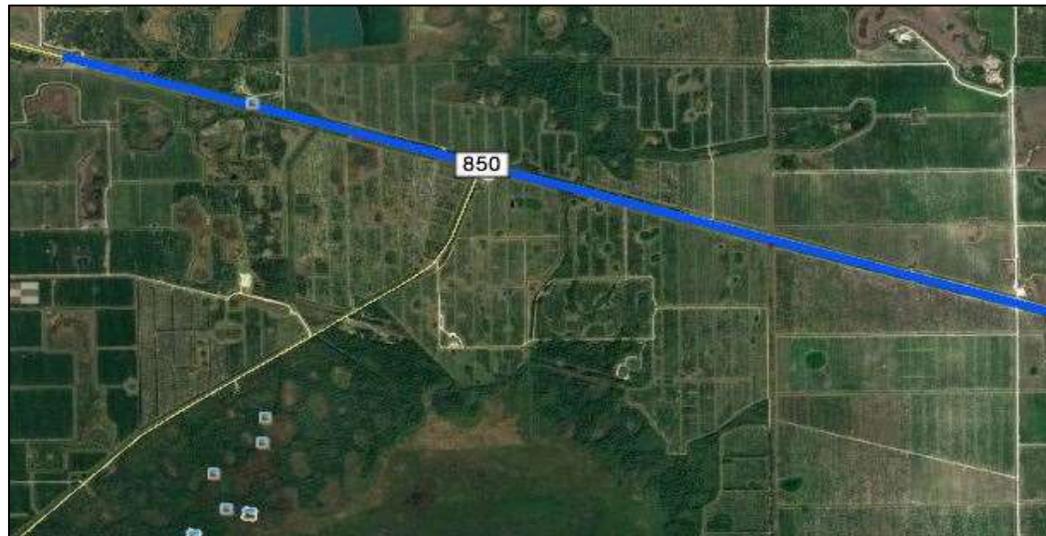
Project Description: WIDEN FROM 2-4 LANES (one segment of larger project)

Prior Years Cost: 596,628
 Future Years Cost: 33,527,247
 Total Project Cost: 81,404,434
 LRTP Ref: SIS PLAN APPENDIX A

Work Summary: ADD LANES & RECONSTRUCT

Lead Agency: FDOT **Length:** 4.022

Phase	Fund	2018/19	2019/20	2020/21	2021/22	2022/23	Total
CST	DI	0	0	0	0	43,281,320	43,281,320
CST	DIH	0	0	0	0	61,587	61,587
ENV	DDR	360,000	0	0	20,000	50,000	430,000
ROW	DDR	799,282	0	0	0	0	799,282
ROW	DIH	76,385	0	0	0	0	76,385
ROW	BNIR	0	2,131,985	0	0	0	2,131,985
RRU	SIWR	0	0	0	0	500,000	500,000
Total		1,235,667	2,131,985	0	20,000	43,892,907	47,280,559



Attachment: Draft TIP Project Sheets (4991 : Draft Narrative and Project Sheets for FY2019-2023

4308491

SR 82 FROM GATOR SLOUGH LANE TO SR 29

SIS

Project Description: WIDEN FROM 2-4 LANES (one segment of larger project)

Prior Years Cost: 2,163,899

Future Years Cost: 0

Total Project Cost: 39,049,221

Work Summary: ADD LANES & RECONSTRUCT

L RTP Ref: SIS PLAN APPENDIX A

Lead Agency: FDOT

Length: 3.219

Phase	Fund	2018/19	2019/20	2020/21	2021/22	2022/23	Total
CST	DI	10,098,829	0	0	0	0	10,098,829
CST	DIH	154,200	0	0	0	0	154,200
CST	DSB2	25,147,991	0	0	0	0	25,147,991
ENV	DI	50,000	0	0	0	0	50,000
ROW	DDR	434,302	0	0	0	0	434,302
RRU	DI	500,000	0	0	0	0	500,000
RRU	LF	500,000	0	0	0	0	500,000
Total		36,885,322	0	0	0	0	36,885,322



Attachment: Draft TIP Project Sheets (4991 : Draft Narrative and Project Sheets for FY2019-2023

4350301 SUNSHINE BLVD FROM 17TH AVE SW TO GREEN BLVD

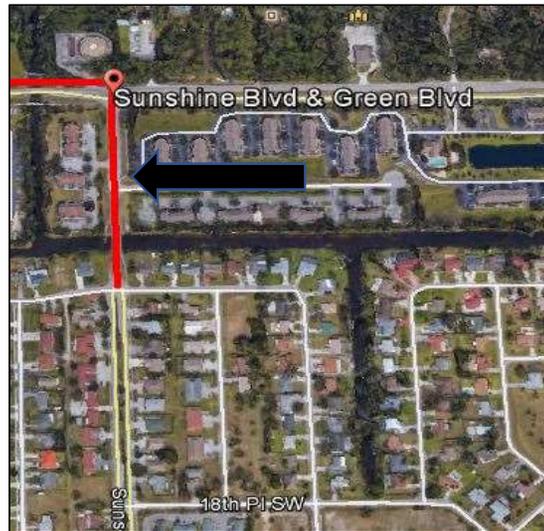
Project Description: BPAC PRIORITY 2013-02 6' SW ON WEST SIDE AND PED BRIDGE

Prior Years Cost: 124,884
 Future Years Cost: 0
 Total Project Cost: 642,069
 LRTP Ref: CFP P6-25 & APPENDIX C

Work Summary: SIDEWALK

Lead Agency: COLLIER COUNTY **Length:** 0.20

Phase	Fund	2018/19	2019/20	2020/21	2021/22	2022/23	Total
CST	SU	517,185	0	0	0	0	517,185
							0
							0
							0
							0
							0
							0
Total		517,185	0	0	0	0	517,185



Attachment: Draft TIP Project Sheets (4991 : Draft Narrative and Project Sheets for FY2019-2023

4365851 SR 84 (DAVIS BLVD) FROM SR 90 (US41) TO AIRPORT PULLING RD

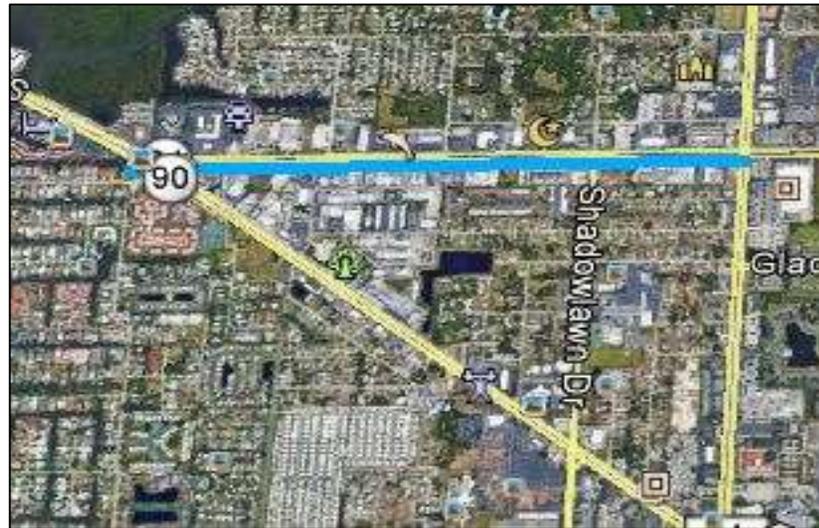
Project Description:

Prior Years Cost: 151,619
 Future Years Cost: 0
 Total Project Cost: 4,282,169
 L RTP Ref: REVENUE PROJECTIONS P5-5 APPENDIX A

Work Summary: RESURFACING

Lead Agency: FDOT **Length:** 0.972

Phase	Fund	2018/19	2019/20	2020/21	2021/22	2022/23	Total
CST	SA	2,329,507	0	0	0	0	2,329,507
CST	DDR	1,701,043	0	0	0	0	1,701,043
ENV	DDR	100,000	0	0	0	0	100,000
							0
							0
							0
							0
Total		4,130,550	0	0	0	0	4,130,550



Attachment: Draft TIP Project Sheets (4991 : Draft Narrative and Project Sheets for FY2019-2023

4390021

SR29 FROM NORTH 1ST STREET TO NORTH 9TH STREET

Project Description:

Prior Years Cost: 240,000
 Future Years Cost: 0
 Total Project Cost: 2,842,257
 L RTP Ref: CFP APPENDIX C

Work Summary:

PEDESTRIAN SAFETY IMPROVEMENT

Lead Agency:

FDOT

Length:

0.502

Phase	Fund	2018/19	2019/20	2020/21	2021/22	2022/23	Total
CST	DDR	1,820,343					1,820,343
CST	DIH	25,700					25,700
CST	DS	706,214					706,214
ENV	DDR	50,000					50,000
							0
							0
							0
Total		2,602,257	0	0	0	0	2,602,257



Attachment: Draft TIP Project Sheets (4991 : Draft Narrative and Project Sheets for FY2019-2023

4395551

SR 951 FROM JUDGE JOLLEY BRIDGE TO FIDDLERS CREEK PARKWAY

SIS

Project Description:

Prior Years Cost: 10,000

Future Years Cost:

Total Project Cost: 7,752,866

Work Summary:

RESURFACING

L RTP Ref: REVENUE PROJECTIONS P5
5 APPENDIX A

Lead Agency:

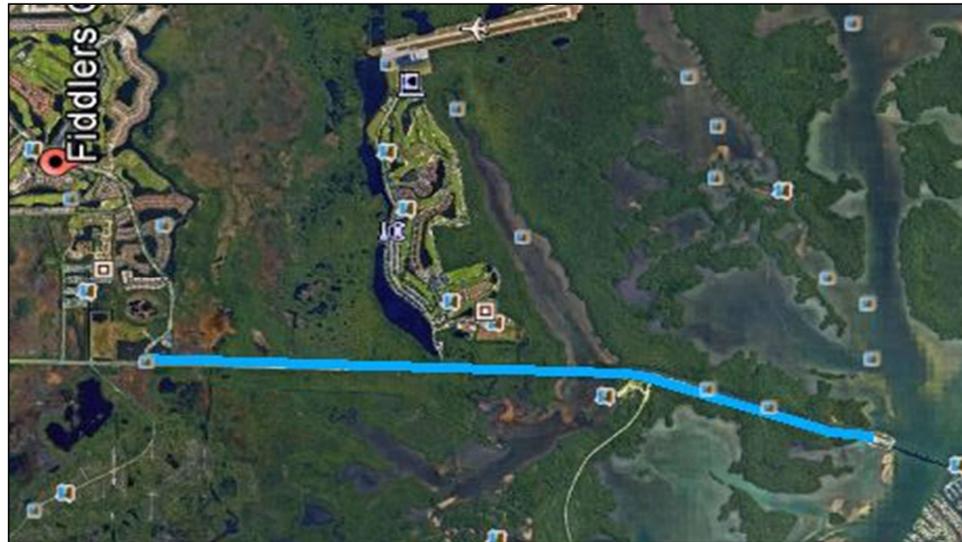
FDOT

Length:

3.031

Phase	Fund	2018/19	2019/20	2020/21	2021/22	2022/23	Total
CST	DDR	482,563	0	0	0	0	482,563
CST	SA	7,185,303	0	0	0	0	7,185,303
ENV	DDR	25,000	50,000	0	0	0	75,000
							0
							0
							0
							0
Total		7,692,866	50,000	0	0	0	7,742,866

<--North



Attachment: Draft TIP Project Sheets (4991 : Draft Narrative and Project Sheets for FY2019-2023

4379241 TRAVEL TIME DATA COLLECTION COLLIER COUNTY ITS ARCH ATMS

Project Description: CMC PRIORITY 2012-10

Prior Years Cost: 0

Future Years Cost: 0

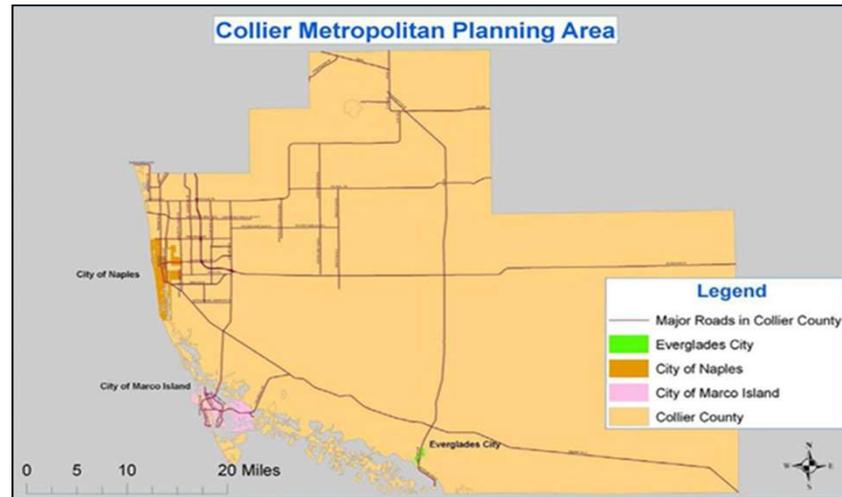
Total Project Cost: 441,000

Work Summary: OTHER ITS

L RTP Ref: CFP-CMS/ITS PROJECTS P6-24 & APPENDIX A

Lead Agency: COLLIER COUNTY **Length:** NA

Phase	Fund	2018/19	2019/20	2020/21	2021/22	2022/23	Total
CST	SU	0	0	441,000	0	0	441,000
							0
							0
							0
							0
							0
							0
Total		0	0	441,000	0	0	441,000



Attachment: Draft TIP Project Sheets (4991 : Draft Narrative and Project Sheets for FY2019-2023

FPN 4380591 US41(SR 90) TAMIAMI TRL FM E OF SR84(DAVIS BLVD) TO COURTHOUSE SHADOWS

SIS

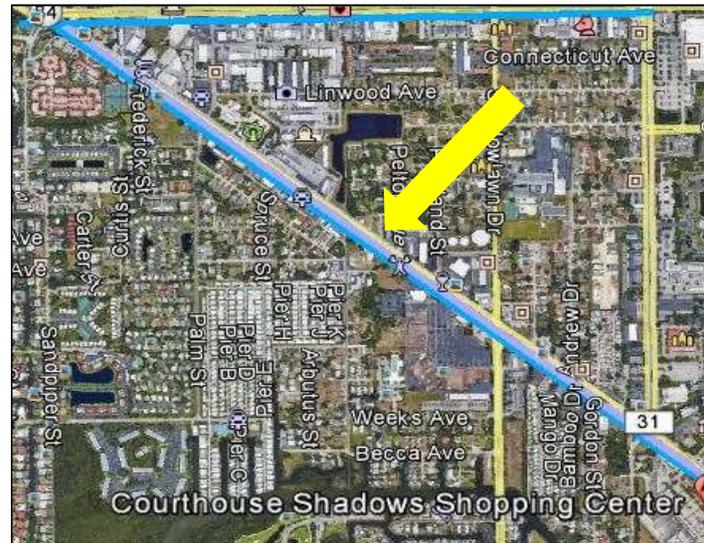
Project Description: INCORPORATES SOME RECOMMENDATIONS FROM FDOT RSA FOR AIRPORT-PULLING/US 41 AREA

Prior Years Cost: 100,000
 Future Years Cost: 0
 Total Project Cost: 8,416,173
 LRTP Ref: REVENUE PROJECTIONS P5
 5 APPENDIX A

Work Summary: RESURFACING

Lead Agency: FDOT **Length:** 1.35

Phase	Fund	2018/19	2019/20	2020/21	2021/22	2022/23	Total
CST	DDR	0	0	6,593,071	0	0	6,593,071
CST	HSP	0	0	1,564,052	0	0	1,564,052
CST	SA	0	0	54,050	0	0	54,050
ENV	DDR	0	30,000	75,000	0	0	105,000
							0
							0
							0
Total		0	30,000	8,286,173	0	0	8,316,173



Attachment: Draft TIP Project Sheets (4991 : Draft Narrative and Project Sheets for FY2019-2023

4415121

US 41 (SR45) FROM S OF DUNRUSS CREEK TO S OF GULF PARK DR

SIS

Project Description:

Prior Years Cost: 10,000
 Future Years Cost: NA
 Total Project Cost: 1,510,000
 L RTP Ref: REVENUE PROJECTIONS P5-5 APPENDIX A

Work Summary:

RESURFACING

Lead Agency:

FDOT

Length:

4.735

Phase	Fund	2018/19	2019/20	2020/21	2021/22	2022/23	Total
PE	DDR	1,500,000	0	0	0	0	1,500,000
							0
							0
							0
							0
							0
							0
							0
Total		1,500,000	0	0	0	0	1,500,000



Attachment: Draft TIP Project Sheets (4991 : Draft Narrative and Project Sheets for FY2019-2023

4419751

US 41 (SR 90) AT OASIS VISITOR CENTER

SIS

Project Description:

Prior Years Cost: 0
 Future Years Cost: 0
 Total Project Cost: 1,038,311
 L RTP Ref: REVENUE PROJECTIONS P5-5 APPENDIX A

Work Summary:

ADD LEFT TURN LANE(S)

Lead Agency:

FDOT

Length:

0.276

Phase	Fund	2018/19	2019/20	2020/21	2021/22	2022/23	Total
CST	DIH	0	0	0	16,650	0	16,650
CST	DDR	0	0	0	861,661	0	861,661
PE	DDR	0	150,000	0	0	0	150,000
PE	DIH	0	10,000	0	0	0	10,000
		0					0
							0
							0
Total		0	160,000	0	878,311	0	1,038,311



Attachment: Draft TIP Project Sheets (4991 : Draft Narrative and Project Sheets for FY2019-2023

4350291 US 41 FROM CR 846 (111TH AVE) TO N OF 91ST AVE

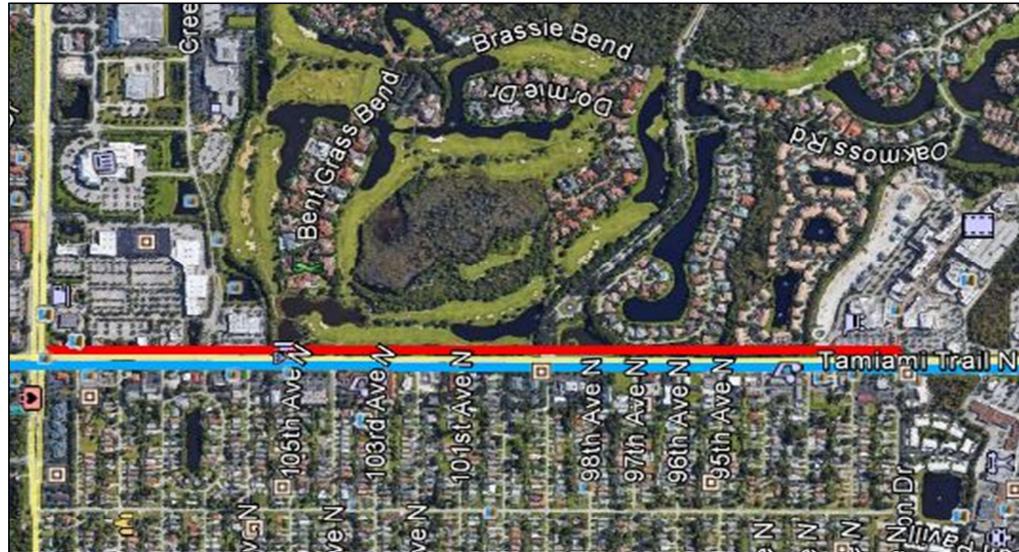
Project Description: CMC PRIORITY 2014-01
6' SW ON EAST SIDE AND 3 SHELTERS

Prior Years Cost: 265,447
 Future Years Cost: 0
 Total Project Cost: 1,415,981
 LRTP Ref: CFP-CMS/ITS PROJECTS P6-24 & APPENDIX A

Work Summary: SIDEWALK

Lead Agency: COLLIER COUNTY **Length:** 1.241

Phase	Fund	2018/19	2019/20	2020/21	2021/22	2022/23	Total
CST	DIH	25,700	0	0	0	0	25,700
CST	DDR	1,064,834	0	0	0	0	1,064,834
ENV	DDR	50,000	0	0	0	0	50,000
RRU	DDR	10,000	0	0	0	0	10,000
							0
							0
							0
Total		1,150,534	0	0	0	0	1,150,534



Attachment: Draft TIP Project Sheets (4991 : Draft Narrative and Project Sheets for FY2019-2023

4350131 ITS INTEGRATE/STANDARDIZE NETWORK COMMUNICATION

Project Description: CMC PRIORITY 2013-02

Prior Years Cost: 0

Future Years Cost: 0

Total Project Cost: 850,000

Work Summary: ITS COMMUNICATION SYSTEM

L RTP Ref: CFP-CMC PROJECTS P6-24
& APPENDIX A

Lead Agency: COLLIER COUNTY **Length:** NA

Phase	Fund	2018/19	2019/20	2020/21	2021/22	2022/23	Total
CST	ACSU	850,000	0	0	0	0	850,000
							0
							0
							0
							0
							0
							0
Total		850,000	0	0	0	0	850,000



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4380661 VIDEO WALL MONITORS FOR THE CITY OF NAPLES

Project Description: CMC PRIORITY 2017-05, 16-05, 15-05, 14-13

Prior Years Cost: 0
 Future Years Cost: 0
 Total Project Cost: 130,000
 LRTP Ref: CFP-CMS/ITS PROJECTS P6-24 & APPENDIX A

Work Summary: TMC SOFTWARE & SYSTEM INTEGRAT

Lead Agency: City of Naples **Length:** NA

Phase	Fund	2018/19	2019/20	2020/21	2021/22	2022/23	Total
CST	SU	0	0	130,000	0	0	130,000
Total		0	0	130,000	0	0	130,000



4350411 COUNTY WIDE STRATEGIC HIGHWAY SAFETY PLAN

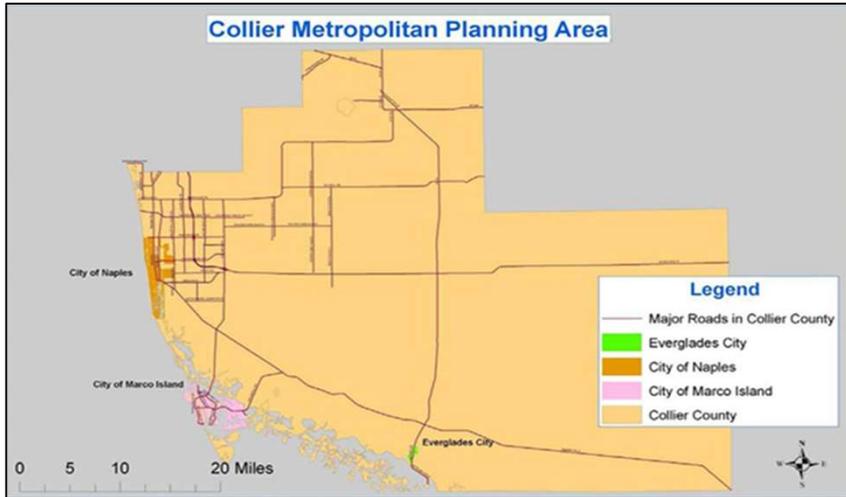
Project Description: CMC PRIORITY 2012 & 2013-09; County lead per Work Program MPO will Lead; administrative modification pending

Prior Years Cost: 0
 Future Years Cost: 0
 Total Project Cost: 200,000
 LRTP Ref: CFP-CMS/ITS PROJECTS P6-24 & APPENDIX A

Work Summary: TRANSPORTATION PLANNING

Lead Agency: COUNTY **Length:** NA

Phase	Fund	2018/19	2019/20	2020/21	2021/22	2022/23	Total
PLN	SA	200,000	0	0	0	0	200,000
							0
							0
							0
							0
							0
							0
							0
Total		200,000	0	0	0	0	200,000



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4393142

COLLIER COUNTY MPO F7 2018/2019-2019/2020 UPWP

Project Description:

Prior Years Cost: 0
 Future Years Cost: 0
 Total Project Cost: 1,084,975
 LRTP Ref: GOALS & OBJECTIVES P3-5

Work Summary: TRANSPORTATION PLANNING

Lead Agency: MPO **Length:** NA

Phase	Fund	2018/19	2019/20	2020/21	2021/22	2022/23	Total
PLN	PL	538,411	546,564	0	0	0	1,084,975
							0
							0
							0
							0
							0
							0
Total		538,411	546,564	0	0	0	1,084,975



Attachment: Draft TIP Project Sheets (4991 : Draft Narrative and Project Sheets for FY2019-2023

439143

COLLIER COUNTY MPO FY 2020/2021-2021/2022 UPWP

Project Description:

Prior Years Cost: 0
 Future Years Cost: 0
 Total Project Cost: 1,093,128
 LRTP Ref: GOALS & OBJECTIVES P3-5

Work Summary:

TRANSPORTATION PLANNING

Lead Agency:

MPO

Length: NA

Phase	Fund	2018/19	2019/20	2020/21	2021/22	2022/23	Total
PLN	PL	0	0	546,564	546,564		1,093,128
							0
							0
							0
							0
							0
							0
Total		0	0	546,564	546,564	0	1,093,128



4393144

COLLIER COUNTY MPO FY 2022/2023-2023/2024 UPWP

Project Description:

Prior Years Cost: 0
 Future Years Cost: 0
 Total Project Cost: 546,564
 LRTP Ref: GOALS & OBJECTIVES P3-5

Work Summary:

TRANSPORTATION PLANNING

Lead Agency:

MPO

Length: NA

Phase	Fund	2018/19	2019/20	2020/21	2021/22	2022/23	Total
PLN	PL	0	0	0	0	546,564	546,564
							0
							0
							0
							0
							0
							0
Total		0	0	0	0	546,564	546,564



Attachment: Draft TIP Project Sheets (4991 : Draft Narrative and Project Sheets for FY2019-2023

03/09/2018

**COLLIER COUNTY
Metropolitan Planning Organization**

Item Number: 14.A

Item Summary: Regular Meeting - April 13, 2018 - 9:00 a.m. Marco Island Community Meeting Room, 51 Bald Eagle Drive, Marco Island, FL 34145

Meeting Date: 03/09/2018

Prepared by:

Title: Planner, Senior – Metropolitan Planning Organization

Name: Brandy Otero

03/01/2018 11:12 AM

Submitted by:

Title: Executive Director - MPO – Metropolitan Planning Organization

Name: Anne McLaughlin

03/01/2018 11:12 AM

Approved By:

Review:

Metropolitan Planning Organization	Brandy Otero	MPO Analyst Review	Completed	03/01/2018 11:13 AM
Metropolitan Planning Organization	Anne McLaughlin	MPO Executive Director Review	Completed	03/01/2018 12:37 PM
Metropolitan Planning Organization	Anne McLaughlin	Meeting Pending		03/09/2018 9:00 AM