



Lee County Board of County Commissioners
Department of Community Development
Division of Planning
Post Office Box 398
Fort Myers, FL 33902-0398
Telephone: (239) 533-8585
FAX: (239) 485-8319

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APPLICATION FOR A COMPREHENSIVE PLAN AMENDMENT

(To be completed at time of intake)

COMMUNITY DEVELOPMENT

DATE REC'D _____

REC'D BY: C.F. N.

APPLICATION FEE \$2,500

TIDEMARK NO: CPA2008-00002

THE FOLLOWING VERIFIED:

Zoning CPD ☐

Commissioner District ☐ 5

Designation on FLUM ☐ GENERAL INTERCHANGE

(To be completed by Planning Staff)

Plan Amendment Cycle: ☐ Normal ☐ Small Scale ☐ DRI ☐ Emergency

Request No: _____

APPLICANT PLEASE NOTE:

Answer all questions completely and accurately. Please print or type responses. If additional space is needed, number and attach additional sheets. The total number of sheets in your application is: 164

Submit 6 copies of the complete application and amendment support documentation, including maps, to the Lee County Division of Planning. Up to 90 additional copies will be required for Local Planning Agency, Board of County Commissioners hearings and the Department of Community Affairs' packages. Staff will notify the applicant prior to each hearing or mail out.

I, the undersigned owner or authorized representative, hereby submit this application and the attached amendment support documentation. The information and documents provided are complete and accurate to the best of my knowledge.

9/22/08

DATE

[Signature]

SIGNATURE OF OWNER OR AUTHORIZED REPRESENTATIVE

2008-00002

I. APPLICANT/AGENT/OWNER INFORMATION

Miromar Development Corporation, a Florida Corporation

APPLICANT

10801 Corkscrew Road, Suite 305

ADDRESS

Estero FL 33928

CITY STATE ZIP

(239) 390-5100 (239) 390-5120

TELEPHONE NUMBER FAX NUMBER

Neale Montgomery, Esq., Pavese Law Firm

AGENT*

1833 Hendry Street

ADDRESS

Fort Myers FL 33928

CITY STATE ZIP

(239) 336-6235 (239) 332-2243

TELEPHONE NUMBER FAX NUMBER

NOT APPLICABLE- PUBLIC RIGHT OF WAY

OWNER(s) OF RECORD

ADDRESS

CITY STATE ZIP

TELEPHONE NUMBER FAX NUMBER

Name, address and qualification of additional planners, architects, engineers, environmental consultants, and other professionals providing information contained in this application.

* This will be the person contacted for all business relative to the application.

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II. REQUESTED CHANGE (Please see Item 1 for Fee Schedule)

A. TYPE: (Check appropriate type)

☒ Text Amendment

☐ Future Land Use Map Series Amendment
(Maps 1 thru 22)
List Number(s) of Map(s) to be amended

1. Future Land Use Map amendments require the submittal of a complete list, map, and two sets of mailing labels of all property owners and their mailing addresses, for all property within 500 feet of the perimeter of the subject parcel. The list and mailing labels may be obtained from the Property Appraisers office. The map must reference by number or other symbol the names of the surrounding property owners list. The applicant is responsible for the accuracy of the list and map.

At least 15 days before the Local Planning Agency (LPA) hearing, the applicant will be responsible for posting signs on the subject property, supplied by the Division of Planning, indicating the action requested, the date of the LPA hearing, and the case number. An affidavit of compliance with the posting requirements must be submitted to the Division of Planning prior to the LPA hearing. The signs must be maintained until after the final Board adoption hearing when a final decision is rendered.

B. SUMMARY OF REQUEST (Brief explanation):

The request seeks to amend the text of Future Land Use Element Policy 1.3.7 to add a footnote to the designation of Station 230+14 (Miromar Outlet Mall directional median opening) to allow for alternative access improvements in the future, if an analysis demonstrating acceptable operations is submitted to and approved by Lee County Department of Transportation. Miromar has concerns about operational issues, and the solutions mandate an adjustment to station 230+14.

III. PROPERTY SIZE AND LOCATION OF AFFECTED PROPERTY (for amendments affecting development potential of property)

A. Property Location:

1. Site Address: None Exists, Corkscrew Road between I-75 & Ben Hill Griffin
2. STRAP(s): None Exists

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B. Property Information

This information is not applicable to a text amendment for a footnote.

Total Acreage of Property: _____

Total Acreage included in Request: _____

Total Uplands: _____

Total Wetlands: _____

Current Zoning: Underlying zoning for road right-of-way is AG-2.

Current Future Land Use Designation: General Interchange

Area of each Existing Future Land Use Category: _____

Existing Land Use: Right of Way

C. State if the subject property is located in one of the following areas and if so how does the proposed change effect the area:

Subject property is not located in one of the areas identified below.

Lehigh Acres Commercial Overlay: _____

Airport Noise Zone 2 or 3: _____

Acquisition Area: _____

Joint Planning Agreement Area (adjoining other jurisdictional lands): _____

Community Redevelopment Area: _____

D. Proposed change for the subject property:

No change is proposed for subject property, this is a text amendment.

E. Potential development of the subject property:

The request is for a text amendment to address traffic concerns for an existing development adjacent to Corkscrew Road. Corkscrew Road is the subject of the text amendment.

1. Calculation of maximum allowable development under existing FLUM: **SEP 23 2008**

Residential Units/Density _____

Commercial intensity _____

Industrial intensity _____



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-
2. Calculation of maximum allowable development under proposed FLUM:

Residential Units/Density

Commercial intensity

Industrial intensity

IV. AMENDMENT SUPPORT DOCUMENTATION

At a minimum, the application shall include the following support data and analysis. These items are based on comprehensive plan amendment submittal requirements of the State of Florida, Department of Community Affairs, and policies contained in the Lee County Comprehensive Plan. Support documentation provided by the applicant will be used by staff as a basis for evaluating this request. To assist in the preparation of amendment packets, the applicant is encouraged to provide all data and analysis electronically. (Please contact the Division of Planning for currently accepted formats)

A. General Information and Maps

NOTE: For each map submitted, the applicant will be required to provide a reduced map (8.5" x 11") for inclusion in public hearing packets.

The following pertains to all proposed amendments that will affect the development potential of properties (unless otherwise specified).

-The Amendment does not affect the development potential of property. The adjacent properties are entitled and developed.

1. Provide any proposed text changes.

SEE ATTACHED

2. Provide a current Future Land Use Map at an appropriate scale showing the boundaries of the subject property, surrounding street network, surrounding designated future land uses, and natural resources.

SEE ATTACHED

3. Provide a proposed Future Land Use Map at an appropriate scale showing the boundaries of the subject property, surrounding street network, surrounding designated future land uses, and natural resources.

There is no proposed future land use map.

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4. Map and describe existing land uses (not designations) of the subject property and surrounding properties. Description should discuss consistency of current uses with the proposed changes.

SEE ATTACHED- The existing land use is Corkscrew Road, an arterial road. There is an existing directional access to Miromar Outlets.

5. Map and describe existing zoning of the subject property and surrounding properties.

A zoning map of the area is provided. Roads do not have zoning designations.

6. The certified legal description(s) and certified sketch of the description for the property subject to the requested change. A metes and bounds legal description must be submitted specifically describing the entire perimeter boundary of the property with accurate bearings and distances for every line. The sketch must be tied to the state plane coordinate system for the Florida West Zone (North America Datum of 1983/1990 Adjustment) with two coordinates, one coordinate being the point of beginning and the other an opposing corner. If the subject property contains wetlands or the proposed amendment includes more than one land use category a metes and bounds legal description, as described above, must be submitted in addition to the perimeter boundary of the property for each wetland or future land use category.

This is a text amendment related to Corkscrew Road access. Not applicable.

7. A copy of the deed(s) for the property subject to the requested change.

This is a text amendment related to Corkscrew Road access. Not applicable.

8. An aerial map showing the subject property and surrounding properties.

SEE ATTACHED

9. If applicant is not the owner, a letter from the owner of the property authorizing the applicant to represent the owner.

This is a text amendment related to Corkscrew Road access. Not applicable.

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B. Public Facilities Impacts

NOTE: The applicant must calculate public facilities impacts based on a maximum development scenario (see Part II.H.).

1. **Traffic Circulation Analysis- There is no land use change.**

The analysis is intended to determine the effect of the land use change on the Financially Feasible Transportation Plan/Map 3A (20-year horizon) and on the Capital Improvements Element (5-year horizon). Toward that end, an applicant must submit the following information:

Long Range – 20-year Horizon:

- a. Working with Planning Division staff, identify the traffic analysis zone (TAZ) or zones that the subject property is in and the socio-economic data forecasts for that zone or zones;
- b. Determine whether the requested change requires a modification to the socio-economic data forecasts for the host zone or zones. The land uses for the proposed change should be expressed in the same format as the socio-economic forecasts (number of units by type/number of employees by type/etc.);
- c. If no modification of the forecasts is required, then no further analysis for the long range horizon is necessary. If modification is required, make the change and provide to Planning Division staff, for forwarding to DOT staff. DOT staff will rerun the FSUTMS model on the current adopted Financially Feasible Plan network and determine whether network modifications are necessary, based on a review of projected roadway conditions within a 3-mile radius of the site;
- d. If no modifications to the network are required, then no further analysis for the long range horizon is necessary. If modifications are necessary, DOT staff will determine the scope and cost of those modifications and the effect on the financial feasibility of the plan;
- e. An inability to accommodate the necessary modifications within the financially feasible limits of the plan will be a basis for denial of the requested land use change;
- f. If the proposal is based on a specific development plan, then the site plan should indicate how facilities from the current adopted Financially Feasible Plan and/or the Official Trafficways Map will be accommodated.

Short Range – 5-year CIP horizon:

- a. Besides the 20-year analysis, for those plan amendment proposals that include a specific and immediated development plan, identify the existing roadways serving the site and within a 3-mile radius (indicate laneage, functional classification, current LOS, and LOS standard);
- b. Identify the major road improvements within the 3-mile study area funded through the construction phase in adopted CIP's (County or Cities) and the State's adopted Five-Year Work Program;
Projected 2030 LOS under proposed designation (calculate anticipated number of trips and distribution on roadway network, and identify resulting changes to the projected LOS);

- c. For the five-year horizon, identify the projected roadway conditions (volumes and levels of service) on the roads within the 3-mile study area with the programmed improvements in place, with and without the proposed development project. A methodology meeting with DOT staff prior to submittal is required to reach agreement on the projection methodology;
 - d. Identify the additional improvements needed on the network beyond those programmed in the five-year horizon due to the development proposal.
2. Provide an existing and future conditions analysis for (see Policy 95.1.3):
 - a. Sanitary Sewer
 - b. Potable Water
 - c. Surface Water/Drainage Basins
 - d. Parks, Recreation, and Open Space
 - e. Public Schools.

There is no land use change.

Analysis should include (but is not limited to) the following (see the Lee County Concurrency Management Report):

There is no land use change.

- Franchise Area, Basin, or District in which the property is located;
- Current LOS, and LOS standard of facilities serving the site;
- Projected 2030 LOS under existing designation;
- Projected 2030 LOS under proposed designation;
- Existing infrastructure, if any, in the immediate area with the potential to serve the subject property.
- Improvements/expansions currently programmed in 5 year CIP, 6-10 year CIP, and long range improvements; and
- Anticipated revisions to the Community Facilities and Services Element and/or Capital Improvements Element (state if these revisions are included in this amendment).
- Provide a letter of service availability from the appropriate utility for sanitary sewer and potable water.

In addition to the above analysis for Potable Water:

- Determine the availability of water supply within the franchise area using the current water use allocation (Consumptive Use Permit) based on the annual average daily withdrawal rate.
- Include the current demand and the projected demand under the existing designation, and the projected demand under the proposed designation.
- Include the availability of treatment facilities and transmission lines for reclaimed water for irrigation.



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- Include any other water conservation measures that will be applied to the site (see Goal 54).
3. Provide a letter from the appropriate agency determining the adequacy/provision of existing/proposed support facilities, including:
 - a. Fire protection with adequate response times;
 - b. Emergency medical service (EMS) provisions;
 - c. Law enforcement;
 - d. Solid Waste;
 - e. Mass Transit; and
 - f. Schools.

NOT APPLICABLE- NO CHANGE

In reference to above, the applicant should supply the responding agency with the information from Section's II and III for their evaluation. This application should include the applicant's correspondence to the responding agency.

C. Environmental Impacts- There is no land use change.

Provide an overall analysis of the character of the subject property and surrounding properties, and assess the site's suitability for the proposed use upon the following:

1. A map of the Plant Communities as defined by the Florida Land Use Cover and Classification system (FLUCCS).
2. A map and description of the soils found on the property (identify the source of the information).
3. A topographic map depicting the property boundaries and 100-year flood prone areas indicated (as identified by FEMA).
4. A map delineating the property boundaries on the Flood Insurance Rate Map effective August 2008.
5. A map delineating wetlands, aquifer recharge areas, and rare & unique uplands.
6. A table of plant communities by FLUCCS with the potential to contain species (plant and animal) listed by federal, state or local agencies as endangered, threatened or species of special concern. The table must include the listed species by FLUCCS and the species status (same as FLUCCS map).

D. Impacts on Historic Resources- There is no land use change.

List all historic resources (including structure, districts, and/or archeologically sensitive areas) and provide an analysis of the proposed change's impact on these resources. The following should be included with the analysis:

1. A map of any historic districts and/or sites, listed on the Florida Master Site File, which are located on the subject property or adjacent properties.
2. A map showing the subject property location on the archeological sensitivity map for Lee County.

E. Internal Consistency with the Lee Plan- **There is no land use change.**

1. Discuss how the proposal affects established Lee County population projections, Table 1(b) (Planning Community Year 2030 Allocations), and the total population capacity of the Lee Plan Future Land Use Map.
2. List all goals and objectives of the Lee Plan that are affected by the proposed amendment. This analysis should include an evaluation of all relevant policies under each goal and objective.
3. Describe how the proposal affects adjacent local governments and their comprehensive plans.
4. List State Policy Plan and Regional Policy Plan goals and policies which are relevant to this plan amendment.

F. Additional Requirements for Specific Future Land Use Amendments

1. Requests involving Industrial and/or categories targeted by the Lee Plan as employment centers (to or from)-

Not applicable, there is no land use change.

- a. State whether the site is accessible to arterial roadways, rail lines, and cargo airport terminals,
 - b. Provide data and analysis required by Policy 2.4.4,
 - c. The affect of the proposed change on county's industrial employment goal specifically policy 7.1.4.
3. Requests moving lands from a Non-Urban Area to a Future Urban Area

There is no land use change.

- a. Demonstrate why the proposed change does not constitute Urban Sprawl. Indicators of sprawl may include, but are not limited to: low-intensity, low-density, or single-use development; 'leap-frog' type development; radial, strip, isolated or ribbon pattern type development; a failure to protect or conserve natural resources or agricultural land; limited accessibility; the loss of large amounts of functional open space; and the installation of costly and duplicative infrastructure when opportunities for infill and redevelopment exist.

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4. Requests involving lands in critical areas for future water supply must be evaluated based on policy 2.4.2.

There is no land use change.

5. Requests moving lands from Density Reduction/Groundwater Resource must fully address Policy 2.4.3 of the Lee Plan Future Land Use Element.

There is no land use change.

- G. Justify the proposed amendment based upon sound planning principles. Be sure to support all conclusions made in this justification with adequate data and analysis.

There is no land use change.

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Item 1: Fee Schedule

Map Amendment Flat Fee	\$2,000.00 each
Map Amendment > 20 Acres	\$2,000.00 and \$20.00 per 10 acres
Small Scale Amendment (10 acres or less)	\$1,500.00 each
Text Amendment Flat Fee	\$2,500.00 each

AFFIDAVIT

I, Neale Montgomery, certify that I am the owner or authorized representative of the property described herein, and that all answers to the questions in this application and any sketches, data, or other supplementary matter attached to and made a part of this application, are honest and true to the best of my knowledge and belief. I also authorize the staff of Lee County Community Development to enter upon the property during normal working hours for the purpose of investigating and evaluating the request made through this application. (There is no property that needs to be accessed for this text amendment)

Neale Montgomery
Signature of owner or owner-authorized agent

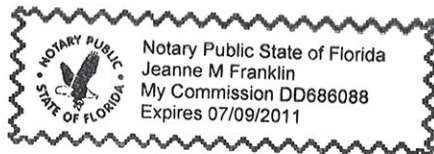
9/22/08
Date

NEALE MONTGOMERY
Typed or printed name

STATE OF FLORIDA)
COUNTY OF LEE)

The foregoing instrument was certified and subscribed before me this 22nd day of September 2008, by NEALE MONTGOMERY, who is personally known to me or who has produced _____ as identification.

(SEAL)



Jeanne M. Franklin
Signature of notary public

JEANNE M. FRANKLIN
Printed name of notary public

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MIROMAR OUTLETS
CORKSCREW ROAD ACCESS EVALUATION

PROJECT LOCATION MAP

07569/01A/0807

1

Current Future Land Use Map



Tax Map Legend

Lee County Future Land Use

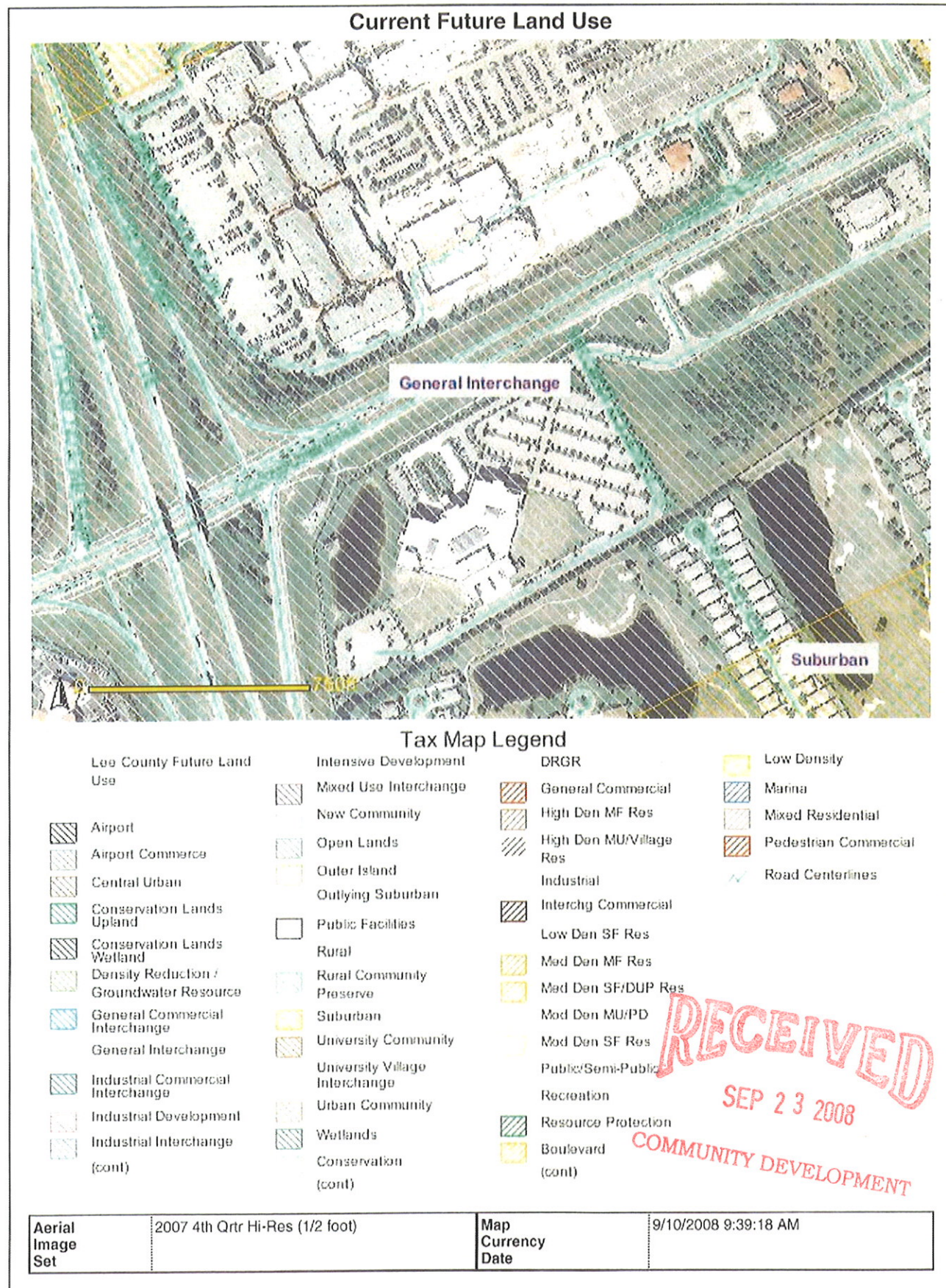
Airport	Intensive Development	DRGR	Low Density
Airport Commerce	Mixed Use Interchange	General Commercial	Marina
Central Urban	New Community	High Den MF Res	Mixed Residential
Conservation Lands Upland	Open Lands	High Den MU/Village Res	Pedestrian Commercial
Conservation Lands Wetland	Outer Island	Industrial	Road Centerlines
Density Reduction / Groundwater Resource	Outlying Suburban	Interchg Commercial	
General Commercial Interchange	Public Facilities	Low Den SF Res	
General Interchange	Rural	Med Den MF Res	
Industrial Commercial Interchange	Rural Community Preserve	Mod Den SF/DUP Res	
Industrial Development	Suburban	Mod Den MU/PD	
Industrial Interchange (cont)	University Community	Mod Den SF Res	
	University Village Interchange	Public/Semi-Public	
	Urban Community	Recreation	
	Wetlands	Resource Protection	
	Conservation (cont)	Boulevard (cont)	

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Aerial Image Set	2007 4th Qtr Hi-Res (1/2 foot)	Map Currency Date	9/10/2008 9:38:25 AM
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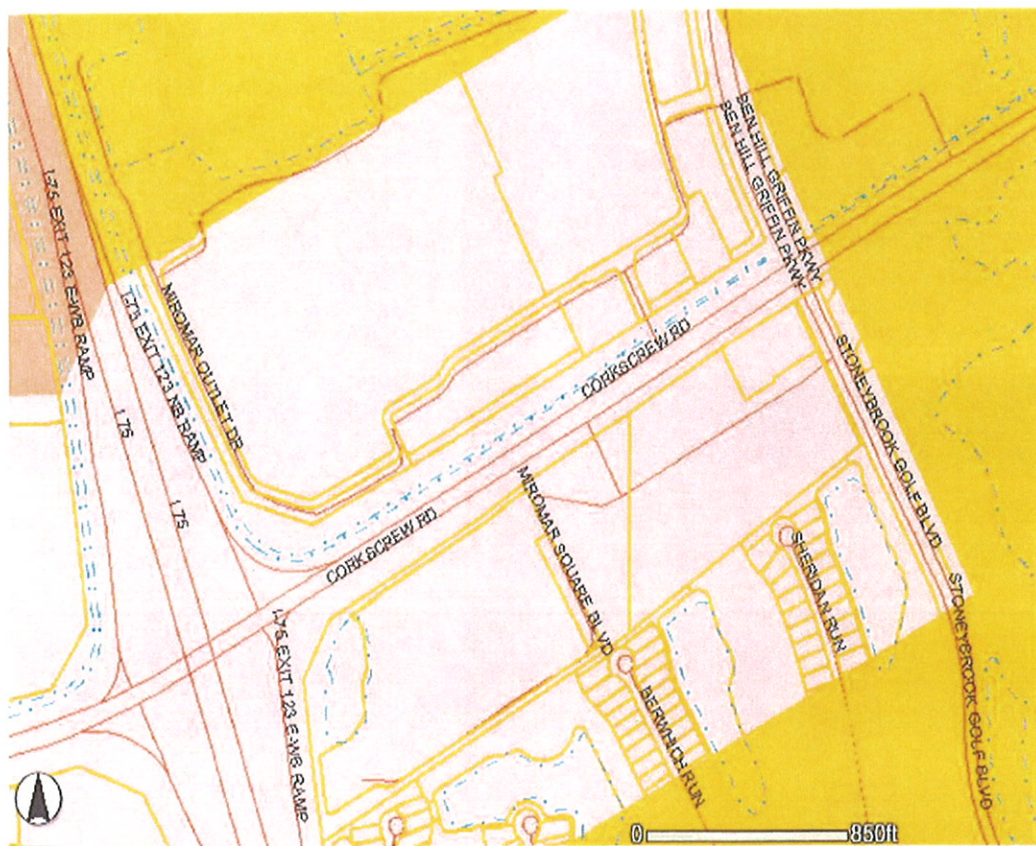


Current Future Land Use Map- Corkscrew Road Access

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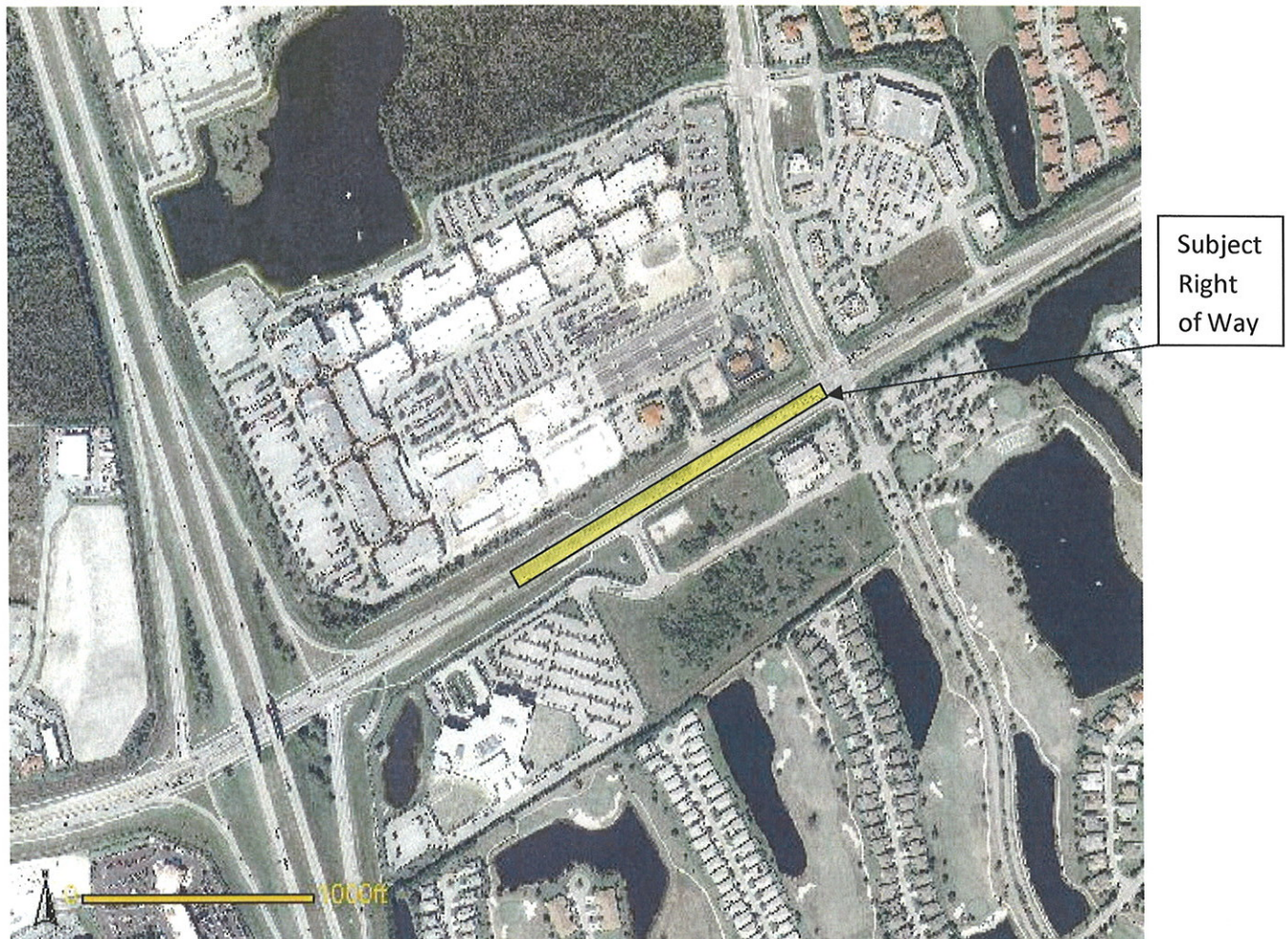
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**MAP AND DESCRIPTION OF EXISTING LAND USES (NOT DESIGNATIONS) OF SUBJECT PROPERTY
AND SURROUNDING PROPERTIES**



EXISTING LAND USES OF SUBJECT PROPERTY AND SURROUNDING PROPERTIES

- Subject Property- section of Corkscrew Road Right-of-Way between I-75 and Stoneybrook Golf Boulevard
- North of Subject section of Right-of Way- Commercial Planned Development- Miromar Outlet Mall- retail uses
 - The proposed change to the comprehensive plan permits alternative access to Miromar Outlet Mall, if approved by Lee County DOT, alleviating and reducing current traffic problems as outlined in the report by David Plummer and Associates, dated September 12 2008
- Northeast of Subject Right-of-Way- Mixed Use Planned Development- retail shopping center- Perkins restaurant, McDonald's Restaurant, vacant properties, Rick Johnson Auto & Tire, Gas Station, Shoppes at Grand Oaks

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- Southeast of Subject section of Right-of-Way- Residential Planned Development- Stoneybrook
- South of Subject section of Right-of-Way- general commercial zoning - vacant land and CVS pharmacy retail store
- Southwest of Subject section of Right-of-Way- Commercial Planned Development- International Design Center

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Proposed Text Change- Policy 1.3.7

(additions are denoted by underlined text and deletions are denoted by ~~strike-through text~~)

POLICY 1.3.7: The following access control standards will apply to the interstate interchange areas of Luckett Road, Alico Road, Corkscrew Road, and Bonita Beach Road. The specified turning movements are not to be construed as conveying a property right or creating any expectation that they will be a permanent feature. The County reserves the right to modify or further restrict movements as it deems necessary to address operational and safety issues. Access control issues for Daniels Parkway west of I-75 are governed by the controlled access resolution adopted by the Board of County Commissioners on October 4, 1989, as may be amended from time to time. The other interchange areas are state roads where access is controlled by the Florida Department of Transportation under the provisions of Rule 14-97.003, FAC. The standard is a strict requirement during the rezoning and development order processes for cases after the effective date of this policy.

Access Control Standards for Luckett Road and Bonita Beach Road

1. The distance to the first connection will be at least 880 feet, provided such location is outside the federal limited access right-of-way line. A connection is generally defined as a driveway or roadway, limited to right-in/right-out movements, but can include a directional median opening. This distance will be measured from the end of the upstream interchange ramp or the beginning of the downstream interchange ramp, whichever is farther from the centerline of the interstate. A single connection per property not meeting this connection spacing standard may be provided, pursuant to the connection permit process, if no reasonable access to the property exists, and if permitting authority review of the connection permit application provided by the applicant determines that the connection does not create a safety, operational or weaving hazard.
2. The minimum distance to the first full movement median opening will be at least 1760 feet as measured from the end of the upstream interchange ramp or the beginning of the downstream interchange ramp, whichever is farther from the centerline of the interstate.
3. Connections and median openings consistent with the above spacing standards may still be denied in the location requested when the Lee County Traffic Engineer determines, based on the engineering and traffic information provided in the permit application, that the safety or operation of the interchange or the limited access highway would be adversely affected.
4. Connections and median openings existing prior to 1998 that do not meet the standards are allowed to remain (unless they need to be closed for operational safety reasons), but cannot expand movements, except in the case of County roadway extensions.

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Access Control Standards for Alico Road

The access on Alico Road is limited to the following movements and locations, from west to east and excluding the area within the interstate limited access right-of-way:

STATION	DISTANCE ⁽¹⁾	MEDIAN OPENING?	MOVEMENT	CONNECTION
160+59.33	n/a	Yes	All	Oriole Road
170+54.54	995.21 ft.	Yes ⁽²⁾	All	Alico Int. Park DRI
177+74.54	720 ft.	Yes	All	Three Oaks Parkway
222+81	n/a	Yes	EB to NB Left-in ⁽³⁾ Rt-in/Rt-out from N&S	Coca-Cola Bottling Co. (N) University Plaza(S)
234+44	1163 ft.	Yes	All	Ben Hill Griffin Pkwy.

Footnotes:

- (1) Distance measured from next connection to the west.
- (2) Unsignalized only. Subject to future restrictions if traffic signal warranted.
- (3) A WB to SB left-in may be allowed if sufficient right-of-way is provided and an analysis demonstrating acceptable operation is submitted to and approved by LCDOT.

Access Control Standards for Corkscrew Road

The access on Corkscrew Road is limited to the following movements and locations, from west to east and excluding the area within the interstate limited access right-of-way:

STATION	DISTANCE ⁽¹⁾	MEDIAN OPENING?	MOVEMENT	CONNECTION
172+84	n/a	Yes	All	Three Oaks Parkway
179+44	660 ft.	Yes	EB to NB Left-in ⁽²⁾ Rt-in/Rt-out from N&S	Corkscrew Crossing (#1)
185+29	585 ft.	Yes	All	Corkscrew Crossing (#2)
187+83	254 ft.	No	Rt-in/Rt-out from N ⁽³⁾	Pic-N-Run Entrance
190+34	253 ft.	Yes	EB to NB Left-in Rt-in/Rt-out from N	Estero Int. Com. Park (#3)
194+29	395 ft.	Yes	WB to SB Left-in NB to SB Left-out Rt-in/Rt-out from S	Corkscrew Woodlands
221+47	n/a	Yes	U-turns only	None
230+14	867 ft.	Yes	EB to NB Left-in Rt-in/Rt-out from N&S ⁽⁴⁾⁽⁵⁾	Miromar Outlet Mall
236+73	660 ft.	Yes	All	Ben Hill Griffin Pkwy.

Footnotes:

- (1) Distance measured from next connection to the west.
- (2) A WB to SB left-in may be allowed at this location if necessary.
- (3) The previously-approved driveway for the Pic-N-Run may remain provided there is not other access; however, if Pic-n-run establishes a connection to the frontage road system and other access locations, the driveway must be removed.
- (4) The Right-in/Right-out from the south already exists at Station 230+65. This connection may be shifted west to any point between Stations 226+30 and 230+65 if proven not to be a traffic safety hazard.
- (5) Alternative access improvements for the Miromar Outlet Mall may be allowed, if an analysis demonstrating acceptable operations is submitted to and approved by LCDOT.

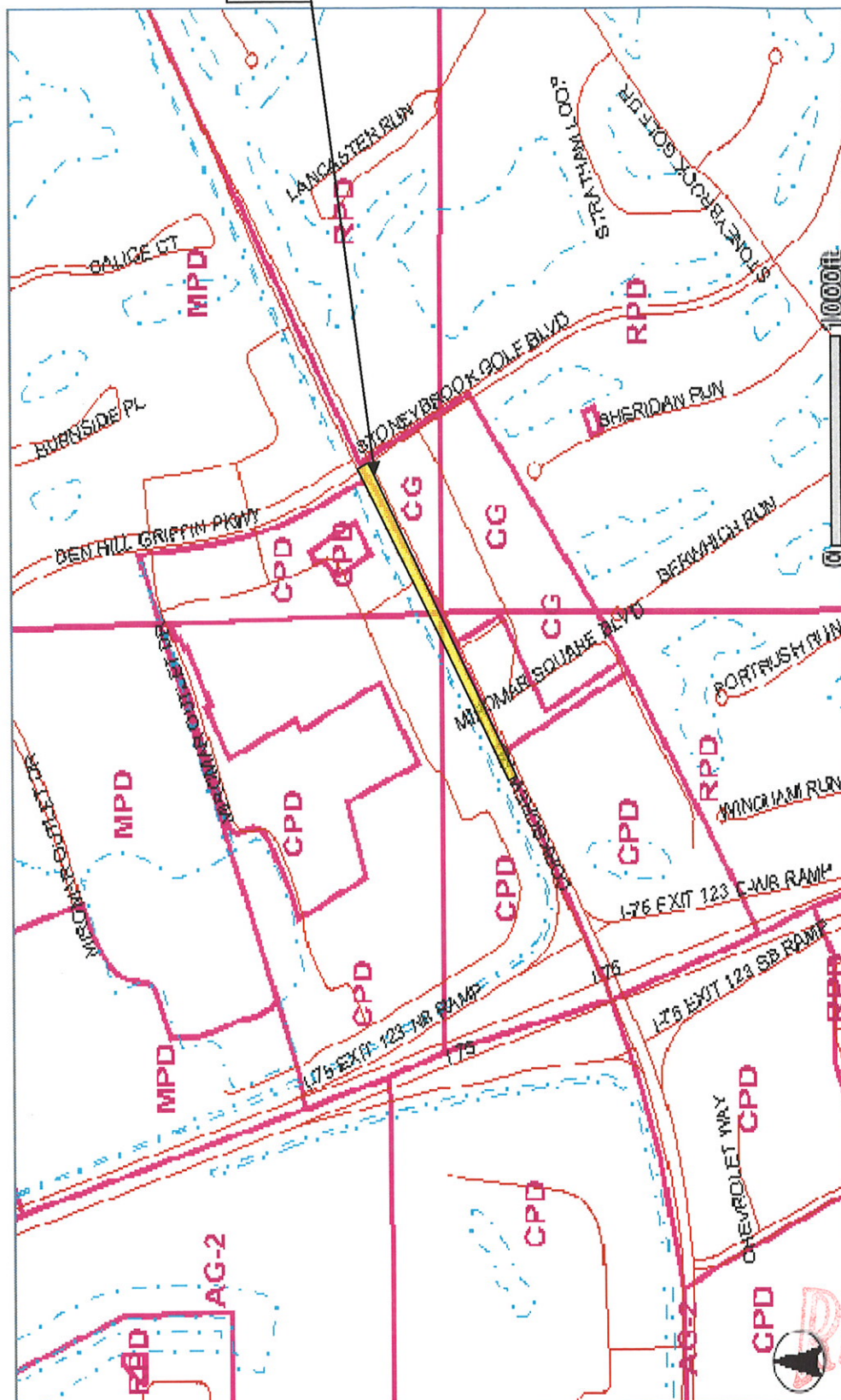
(Relocated and Amended by Ordinance No. 00-22, Amended by Ordinance No. 03-05)

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Current Zoning Map



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- Subject Property- section of Corkscrew Road Right-of-Way between I-75 and Stoneybrook Golf Boulevard
- North of Subject section of Right-of Way- Commercial Planned Development- Miromar Outlet Mall
- Northeast of Subject Right-of-Way- Mixed Use Planned Development- retail shopping center and residential community
- Southeast of Subject section of Right-of-Way- Residential Planned Development- Stoneybrook community
- South of Subject section of Right-of-Way- general commercial zoning - vacant land and CVS pharmacy retail store
- Southwest of Subject section of Right-of-Way- Commercial Planned Development- International Design Center

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CORKSCREW ROAD ACCESS
COMPREHENSIVE PLAN AMENDMENT

Project #07569

September 12, 2008

Prepared by:
DAVID PLUMMER & ASSOCIATES, INC.
1531 Hendry Street
Fort Myers, Florida 33901



CORKSCREW ROAD ACCESS **COMPREHENSIVE PLAN AMENDMENT**

Introduction

Corkscrew Road is one of the primary east-west arterials in south Lee County. It is the principal arterial providing access to major developments in the Corkscrew Road area east of I-75, including Stoneybrook, International Design Center, Grandezza, Bella Terra and Miromar Outlet Mall. In addition, it provides connectivity between some of the major north-south arterials in South Lee County, including US 41, Three Oaks Parkway, I-75 and Ben Hill Griffin Parkway.

The section of Corkscrew Road from Three Oaks Parkway to Ben Hill Griffin Parkway is in the Interstate interchange area and access points along this section of Corkscrew Road are controlled by The Lee Plan, Future Land Use Element Policy 1.3.7. Excerpts from The Lee Plan are provided in Appendix 1 and the specific access points designated by The Lee Plan are summarized in Exhibit 1. As shown in Exhibit 1, Station 230+14 represents the eastbound to northbound directional median opening serving the Miromar Outlet Mall.

Traffic operational problems have been experienced on Corkscrew Road between I-75 and Ben Hill Griffin Parkway. Miromar has been proactively working with the Lee County DOT to address and alleviate these operational issues. As an interim improvement, Miromar lengthened the eastbound left-turn lane at the Miromar Outlets directional median opening on Corkscrew Road by approximately 250 feet.

As part of a long term solution, Miromar has evaluated several improvement alternatives, including the potential future relocation of the Miromar Outlets directional median opening to the west.

The potential relocation of the Miromar Outlets directional median opening and other access improvements would require an amendment to the established access points of The Lee Plan. Therefore, this traffic study has been prepared in support of the proposed amendment to the Comprehensive Plan (The Lee Plan) modifying Future Land Use Element Policy 1.3.7 to allow the possible future relocation of the existing Miromar Outlet Mall directional median opening and other potential access improvements.

Proposed Amendment

The proposed amendment to The Lee Plan; Future Land Use Element Policy 1.3.7 is to add a footnote to the designation of Station 230+14 (Miromar Outlet Mall directional median opening) to allow for alternative access improvements in the future, if an analysis demonstrating acceptable operations is submitted to and approved by Lee County DOT. The proposed amendment is presented below and in Exhibit 2.

Proposed Text Amendment to The Lee Plan,
Future Land Use Element, Policy 1.3.7
Revised Access Control Standards For Corkscrew Road

<u>Station</u>	<u>Distance ⁽¹⁾</u>	<u>Median Opening?</u>	<u>Movement</u>	<u>Connection</u>
172+84	n/a	Yes	All	Three Oaks Parkway
179+44	660 ft.	Yes	EB to NB Left-in ⁽²⁾ Rt-in/Rt-out from N&S	Corkscrew Crossing (#1)
185+29	585 ft.	Yes	All	Corkscrew Crossing (#2)
187+83	254 ft.	No	Rt-in/Rt-out from N ⁽³⁾	Pic-N-Run Entrance
190+34	253 ft.	Yes	EB to NB Left-in Rt-in/Rt-out from N	Estero Int. Com. Park (#3)
194+29	395 ft.	Yes	WB to SB Left-in NB to SB Left-out Rt-in/Rt-out from S	Corkscrew Woodlands
221+47	n/a	Yes	U-turns only	None
230+14	867 ft.	Yes	EB to NB Left-in Rt-in/Rt-out from N&S ⁽⁴⁾ (5)	Miromar Outlet Mall
236+73	660 ft.	Yes	All	Ben Hill Griffin Pkwy.

Footnotes:

- (1) Distance measured from next connection to the west.
- (2) A WB to SB left-in may be allowed at this location if necessary.
- (3) The previously-approved driveway for the Pic-N-Run may remain provided there is not other access; however, if Pic-n-run establishes a connection to the frontage road system and other access locations, the driveway must be removed.
- (4) The Right-in/Right-out from the south already exists at Station 230+65. This connection may be shifted west to any point between Stations 226+30 and 230+65 if proven not to be a traffic safety hazard. (Relocated and Amended by Ordinance No. 00-22, Amended by Ordinance No. 03-05).
- (5) Alternative access improvements for the Miromar Outlet Mall may be allowed, if an analysis demonstrating acceptable operations is submitted to and approved by LCDOT.

Traffic Circulation Analysis

The Lee County Application for a Comprehensive Plan Amendment, Section IV, Part B.1 requests certain traffic circulation support analysis and documentation information as part of the public facilities impact assessment. The analysis is intended to determine the effect of the land use change on the Financially Feasible Transportation Plan/Map 3A (20-year horizon) and on the Capital Improvement Element (5-year horizon).

The proposed amendment is a "text" amendment only, to allow for potential alternative access improvements in the future, including a possible future relocation of the existing Miromar Outlet Mall access point (Station 230+14) on Corkscrew Road by adding a footnote to the Future Land Use Element Policy 1.3.7. The proposed amendment will not result in any land use, socio-economic data and/or traffic analysis zone (TAZ) modifications. Therefore, no further analyses for the long range (20-year) horizon and/or for the short range (5-year) horizon are necessary per the Section IV, Part B.1 of the Comprehensive Plan Amendment application. However,

alternative access improvements were evaluated and are presented in the following sections of this report.

Improvement Evaluation

Several alternative improvements to improve traffic operations along Corkscrew Road, including a “do nothing” alternative, were evaluated. They are presented in the following reports and included in the appendices to this report. These reports have been submitted to and reviewed by the Lee County DOT.

- Corkscrew Road Traffic Operations Assessment, dated March 6, 2006, Appendix 2.
- Miromar Outlets Corkscrew Road Access Evaluation, dated September 7, 2007, Appendix 3.
- Miromar Outlets Signal Warrant Study, and dated January 31, 2008, Appendix 4.

Since the objective is to improve traffic operations along the Corkscrew Road corridor and provide more efficient access to and from the Miromar Outlet Mall, the “do nothing” alternative is not considered an acceptable alternative.

Two important alternatives included: 1) providing dual eastbound left-turn lanes and signalization at the existing Miromar Outlet Mall directional median opening; and 2) relocating the Miromar Outlet Mall directional median opening to approximately 350 feet west, along with providing dual eastbound left-turn lanes and signalization. Other alternative access improvements are possible and are under consideration. This analysis, however, presents the operational characteristics of the relocation of the directional median opening.

While providing dual left-turn lanes and signalization of the eastbound to northbound left-turn movement at the existing Outlet Mall location will not require a Plan Amendment, the potential relocation of the Miromar Outlet Mall directional median opening to the west will require an amendment to The Lee Plan Policy 1.3.7. Therefore, this traffic study summarizes the potential impacts of the possible relocation as compared to the existing conditions (without improvement).

The proposed improvements associated with the possible future relocation of the Miromar Outlet Mall directional median opening include the following.

- Relocate Miromar Outlets directional median opening approximately 350 feet to the west.
- Provide dual eastbound left-turn lanes (inbound) and dual southbound right-turn lanes (outbound) at the relocated entrance.
- Signalize the eastbound left-turn movement to operate within the “shadow” of the adjacent signals.
- Convert the existing Miromar Outlets entrance to inbound right-turn movement only.

- Extend the eastbound dual left-turn lanes at the Corkscrew Road/Ben Hill Griffin Parkway intersection.
- Provide southbound dual right-turn lanes and separate westbound right-turn lane at the Corkscrew Road/Ben Hill Griffin Parkway intersection.

A detailed arterial analysis of the impacts of the proposed improvements was performed using Synchro/SimTraffic. The analysis is summarized in the report titled Miromar Outlets Corkscrew Road Access Evaluation and dated September 7, 2007. A copy of that traffic study is provided in Appendix 3.

A comparison of the various Measures of Effectiveness (MOE) associated with the proposed improvements, based on an arterial level and a network level analysis, is summarized below.

Comparison of Measures of Effectiveness ⁽¹⁾

<u>Measure of Effectiveness</u>	<u>Without Improvement</u>	<u>With Improvement</u>	<u>Change</u>
<u>Corkscrew Road Arterial Analysis</u>			
Total Delay/Vehicle (Sec/Veh)	13	13	No Change
Total Delay (Hours)	90	91	+1.01%
Stops/Vehicle	0.32	0.28	-12.50%
Stops	7910	6930	-12.40%
Performance Index	112	110.6	-1.25%
Eastbound Average Speed (MPH)	29.2	28.7	-1.71%
Eastbound Arterial LOS	C	C	No Change
Westbound Average Speed (MPH)	28.8	27.4	-4.86%
Westbound Arterial LOS	C	C	No Change
<u>Network Analysis</u>			
Total Delay/Vehicle (Sec/Veh)	17	16	-5.88%
Total Delay (Hours)	167	162	-3.00%
Stops/Vehicle	0.36	0.33	-8.33%
Stops	12,992	11,911	-8.32%
Average Speed (MPH)	24	24	No Change
Travel Time (Hours)	328	322	-1.83%
Performance Index	203.1	195.5	-3.74%

Footnotes:

(1) Based on the Miromar Outlets Corkscrew Road Access Evaluation dated September 7, 2007, Appendix 3.

As shown above, the findings are summarized as follows.

1. Total delay per vehicle on Corkscrew Road was unchanged without and with the improvements. On a network level analysis, the improvements reduced total delay per vehicle by approximately 6% (from 17 seconds to 16 seconds).
2. While the total delay in hours on Corkscrew Road increased slightly by 1% (from 90 hours to 91 hours), the total delay in hours on the network was reduced by 3% (from 167 hours to 162 hours).
3. Stops per vehicle and total number of stops decreased approximately 12% on Corkscrew Road and by approximately 8% on the network.
4. The proposed improvements resulted in a better Performance Index (PI), indicating the combined effect of delay, stops and queuing, on Corkscrew Road, as well as on the network.
5. Based on arterial speeds, Corkscrew Road continues to operate at LOS "C" with the proposed improvements.
6. The proposed improvements maintain the overall network average speed and reduces the network travel time by approximately 2%, with a slight reduction in arterial speed.

In addition to the arterial analysis, SimTraffic simulations demonstrated significant operational improvements at the Miromar Outlet Mall directional median opening and the Ben Hill Griffin Parkway intersections as a result of the proposed improvements. A comparison of the intersection operations without and with the proposed improvements is summarized below.

Intersection Measures of Effectiveness ⁽¹⁾

<u>Measure of Effectiveness</u>	<u>Without Improvement</u>	<u>With Improvement</u>	<u>Change</u>
Corkscrew Road/Miromar Directional Median Opening:			
Total Delay/Vehicle (Sec/Veh)	38.6	14.4	-62.70%
Total Delay (Hours)	37.9	14.0	-63.06%
Total Stops	1,224	916	-25.16%
Average Speed (MPH)	15	24	+60.0%
Eastbound Left 95% Queue (Feet)	849	176 ⁽²⁾	-58.54%
Eastbound Left Queuing Penalty (Veh)	23	0	-23
Corkscrew Road/Ben Hill Griffin Parkway:			
Total Delay/Vehicle (Sec/Veh)	51.9	46.3	-10.79%
Total Delay (Hours)	48.2	42.0	-12.86%
Total Stops	2535	2349	-7.70%

Average Speed (MPH)	6	8	+33.33%
Eastbound Left 95% Queue (Feet)	593 ⁽²⁾	490 ⁽²⁾	-17.30%
Eastbound Left Queuing Penalty (Veh)	15	0	-15

Footnotes:

(1) Based on the Miromar Outlets Corkscrew Road Access Evaluation dated September 7, 2007, Appendix 3.

As shown above, the proposed improvements demonstrated the following.

1. The total delay per vehicle and total delay hours were reduced approximately 63% at the Miromar Directional Median Opening and approximately 11% to 13% at the Ben Hill Griffin Parkway intersection.
2. The total number of stops was decreased approximately 25% and 8% at the Miromar Directional Median Opening and the Ben Hill Griffin Parkway intersection, respectively.
3. Average speed increased at both intersections.
4. The eastbound left-turn queues at the Miromar Directional Median Opening were reduced by approximately 59%, with no queuing penalty and the eastbound left-turn queues at the Ben Hill Griffin Parkway intersection were reduced by approximately 17%, with no queuing penalty.

Conclusions

There are several alternative access improvements to Miromar Outlet Mall under consideration including relocating the directional median opening and providing additional right-in and out access. The proposed relocation of the directional median opening to the west resulted in the following.

- Reduced total delay and delay per vehicle at both the Miromar Directional Median Opening and the Ben Hill Griffin Parkway intersections.
- Reduced total number of stops and stops per vehicle on Corkscrew Road.
- Reduced eastbound left-turn queues at the Miromar Directional Median Opening and the Ben Hill Griffin Parkway intersections.
- Improved performance index on Corkscrew Road.
- Improved traffic flow on Corkscrew Road.
- Increased eastbound left-turn storage at Ben Hill Griffin Parkway by approximately 500 feet.
- Reduced potential for dangerous right angle accidents at the Miromar Outlet Median Opening.
- Increased southbound right-turn storage by approximately 450 feet at Ben Hill Griffin Parkway.

The potential future relocation of the Miromar Outlets directional median opening to the west, along with reconstruction of the internal Mall roadway, improves traffic operations, increases inbound and outbound storage, and facilitates ingress and egress.

The proposed Comprehensive Plan Amendment is a text change to Future Land Use Element, Policy 1.3.7 to allow alternative access improvements, including the possible future relocation of the directional median opening, if both Lee County DOT and Miromar find that it is the best alternative to improve traffic operations along Corkscrew Road.

EXHIBIT 1
CORKSCREW ROAD ACCESS
COMPREHENSIVE PLAN AMENDMENT

POLICY 1.3.7, EXISTING ACCESS CONTROL STANDARDS FOR CORKSCREW ROAD

STATION	DISTANCE ⁽¹⁾	MEDIAN		CONNECTION
		OPENING?	MOVEMENT	
172+84	n/a	Yes	All	Three Oaks Parkway
179+44	660 ft.	Yes	EB to NB Left-in ⁽²⁾ Rt-in/Rt-out from N&S	Corkscrew Crossing (#1)
185+29	585 ft.	Yes	All	Corkscrew Crossing (#2)
187+83	254 ft.	No	Rt-in/Rt-out from N ⁽³⁾	Pic-N-Run Entrance
190+34	253 ft.	Yes	EB to NB Left-in Rt-in/Rt-out from N	Esterio Int. Com. Park (#3)
194+29	395 ft.	Yes	WB to SB Left-in NB to SB Left-out Rt-in/Rt-out from S	Corkscrew Woodlands
221+47	n/a	Yes	U-turns only	None
230+14	867 ft.	Yes	EB to NB Left-in Rt-in/Rt-out from N&S ⁽⁴⁾	Miromar Outlet Mall
236+73	660 ft.	Yes	All	Ben Hill Griffin Pkwy.

(1) Distance measured from next connection to the west.

(2) A WB to SB left-in may be allowed at this location if necessary.

(3) The previously-approved driveway for the Pic-N-Run may remain provided there is not other access; however, if Pic-N-Run establishes a connection to the frontage road system and other access locations, the driveway must be removed.

(4) The Right-in/Right-out from the south already exists at Station 230+65. This connection may be shifted west to any point between Stations 226+30 and 230+65 if proven not to be a traffic safety hazard.

(Relocated and Amended by Ordinance No. 00-22, Amended by Ordinance No. 03-05)

Source: The Lee Plan, 2007 Codification, As Amended through August 2007, Future Land Use Element Policy 1.3.7

EXHIBIT 2
CORKSCREW ROAD ACCESS
COMPREHENSIVE PLAN AMENDMENT

REVISED ACCESS CONTROL STANDARDS FOR CORKSCREW ROAD

STATION	DISTANCE ⁽¹⁾	MEDIAN		CONNECTION
		OPENING?	MOVEMENT	
172+84	n/a	Yes	All	Three Oaks Parkway
179+44	660 ft.	Yes	EB to NB Left-in ⁽²⁾ Rt-in/Rt-out from N&S	Corkscrew Crossing (#1)
185+29	585 ft.	Yes	All	Corkscrew Crossing (#2)
187+83	254 ft.	No	Rt-in/Rt-out from N ⁽³⁾	Pic-N-Run Entrance
190+34	253 ft.	Yes	EB to NB Left-in Rt-in/Rt-out from N	Estero Int. Com. Park (#3)
194+29	395 ft.	Yes	WB to SB Left-in NB to SB Left-out Rt-in/Rt-out from S	Corkscrew Woodlands
221+47	n/a	Yes	U-turns only	None
230+14	867 ft.	Yes	EB to NB Left-in Rt-in/Rt-out from N&S ⁽⁴⁾⁽⁵⁾	Miromar Outlet Mall
236+73	660 ft.	Yes	All	Ben Hill Griffin Pkwy.

(1) Distance measured from next connection to the west.

(2) A WB to SB left-in may be allowed at this location if necessary.

(3) The previously-approved driveway for the Pic-N-Run may remain provided there is not other access; however, if Pic-N-Run establishes a connection to the frontage road system and other access locations, the driveway must be removed.

(4) The Right-in/Right-out from the south already exists at Station 230+65. This connection may be shifted west to any point between Stations 226+30 and 230+65 if proven not to be a traffic safety hazard.

(Relocated and Amended by Ordinance No. 00-22, Amended by Ordinance No. 03-05)

(5) Alternative access improvements for the Miromar Outlet Mall may be allowed, if an analysis demonstrating acceptable operations is submitted to and approved by LCDOT.

APPENDIX 1

CORKSCREW ROAD ACCESS – EXCERPTS FROM THE LEE PLAN

POLICY 1.3.2: The General Interchange areas are intended primarily for land uses that serve the traveling public: service stations, hotel, motel, restaurants, and gift shops. But because of their location, market attractions, and desire for flexibility, these interchange uses permit a broad range of land uses that include tourist commercial, general commercial and light industrial/commercial. (Amended by Ordinance No. 94-30, 99-18)

POLICY 1.3.3: The General Commercial Interchange areas are intended primarily for general community commercial land uses: retail, planned commercial districts, shopping, office, financial, and business.

POLICY 1.3.4: The Industrial Commercial Interchange areas are designated to permit a mixture of light industrial and/or commercial uses. This category does not permit heavy industrial uses. Within areas expanded beyond the existing Industrial Commercial Interchange boundaries (on January 1, 2007), retail commercial uses will be limited to 20% of the total floor area and light industrial uses will be a minimum of 50% of the total floor area. (Amended by Ordinance No. 07-10)

POLICY 1.3.5: The University Village Interchange land use category is designed to accommodate both interchange land uses and non-residential land uses related to the University. Development within this interchange area may or may not be related to, or justified by the land use needs of the University. Land uses allowed within this area include those allowed in the Industrial Commercial Interchange category and the associated support development allowed in the University Village. The overall average intensity of non-residential development will be limited to 10,000 square feet of building area per non-residential acre allowed pursuant to Map 16 and Table 1(b). See the definition of Associated Support Development in the Glossary. Cooperative master planning and approval by the Board of Regents will be required prior to development within this land use category. Additionally, any development within this land use category which meets or exceeds the Development of Regional Impact thresholds, either alone or through aggregation, must conform to the requirements of Chapter 380 F.S. (Added by Ordinance No. 92-47, Amended by Ordinance No. 94-30, 00-22)

POLICY 1.3.6: Lee County recognizes that development immediately adjoining the I-75 ramps could render future interchange improvements extremely costly if not prohibitive. To assist the county in evaluating the impacts of specific rezoning proposals located within 1000 feet of I-75 ramps, county staff will estimate the possible right-of-way needs for interchange improvements in that quadrant and present this information during the rezoning process. Where possible, development approvals must be phased to protect land critical for future interchange improvements. (Relocated by Ordinance No. 99-18, Amended by Ordinance No. 00-22)

POLICY 1.3.7: The following access control standards will apply to the interstate interchange areas of Luckett Road, Allico Road, Corkscrew Road, and Bonita Beach Road. The specified turning movements are not to be construed as conveying a property right or creating any expectation that they will be a permanent feature. The County reserves the right to modify or further restrict movements as it deems necessary to address operational and safety issues. Access control issues for Daniels Parkway west of I-75 are governed by the controlled access resolution adopted by the Board of County Commissioners on October 4, 1989, as may be amended from time to time. The other interchange areas are state roads where access is controlled by the Florida Department of Transportation under the provisions of Rule 14-97.003, FAC. The standard is a strict requirement during the rezoning and development order processes for cases after the effective date of this policy.

Access Control Standards for Corkscrew Road

The access on Corkscrew Road is limited to the following movements and locations, from west to east and excluding the area within the interstate limited access right-of-way:

STATION	DISTANCE ⁽¹⁾	MEDIAN OPENING?	MOVEMENT	CONNECTION
172+84	n/a	Yes	All	Three Oaks Parkway
179+44	660 ft.	Yes	EB to NB Left-in ⁽²⁾ Rt-in/Rt-out from N&S	Corkscrew Crossings (#1)
185+29	585 ft.	Yes	All	Corkscrew Crossings (#2)
187+83	254 ft.	No	Rt-in/Rt-out from N ⁽³⁾	Pic-N-Run Entrance
190+34	253 ft.	Yes	EB to NB Left-in Rt-in/Rt-out from N	Estero Int. Com. Park (#3)
194+29	395 ft.	Yes	WB to SB Left-in NB to WB Left-out Rt-in/Rt-out from S	Corkscrew Woodlands
221+47	n/a	Yes	U-turns only	None
230+14	867 ft.	Yes	EB to NB Left-in Rt-in/Rt-out from N&S ⁽⁴⁾	Miromar Outlet Mall
236+73	660 ft.	Yes	All	Ben Hill Griffin Pkwy.

⁽¹⁾ Distance measured from next connection to the west.

⁽²⁾ A WB to SB left-in may be allowed at this location if necessary.

⁽³⁾ The previously-approved driveway for the Pic-N-Run may remain provided there is not other access; however, if Pic-N-Run establishes a connection to the frontage road system and other access locations, the driveway must be removed.

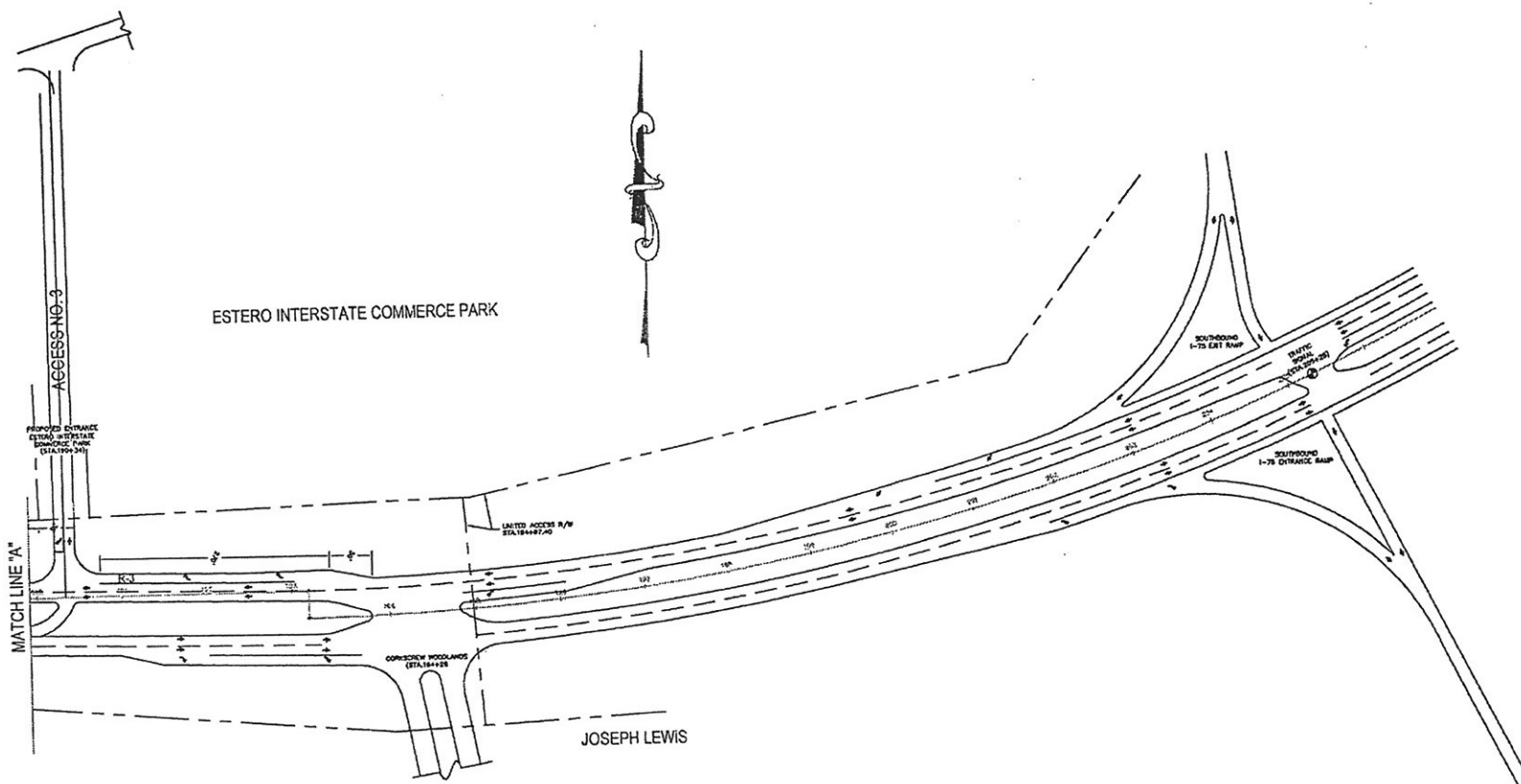
⁽⁴⁾ The Right-in/Right-out from the south already exists at Station 230+65. This connection may be shifted west to any point between Stations 226+30 and 230+65 if proven not to be a traffic safety hazard.

(Relocated and Amended by Ordinance No. 00-22, Amended by Ordinance No. 03-05)

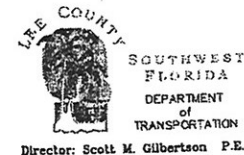
OBJECTIVE 1.4: NON-URBAN AREAS. Designate on the Future Land Use Map categories for those areas not anticipated for urban development at this time.

POLICY 1.4.1: The Rural areas are to remain predominantly rural--that is, low density residential, agricultural uses, and minimal non-residential land uses that are needed to serve the rural community. These areas are not to be programmed to receive urban-type capital improvements, and they can anticipate a continued level of public services below that of the urban areas. Maximum density in the Rural area is one dwelling unit per acre (1 du/acre). (Added by Ordinance No. 97-17, Amended by Ordinance No. 98-09, 00-22, 07-12)

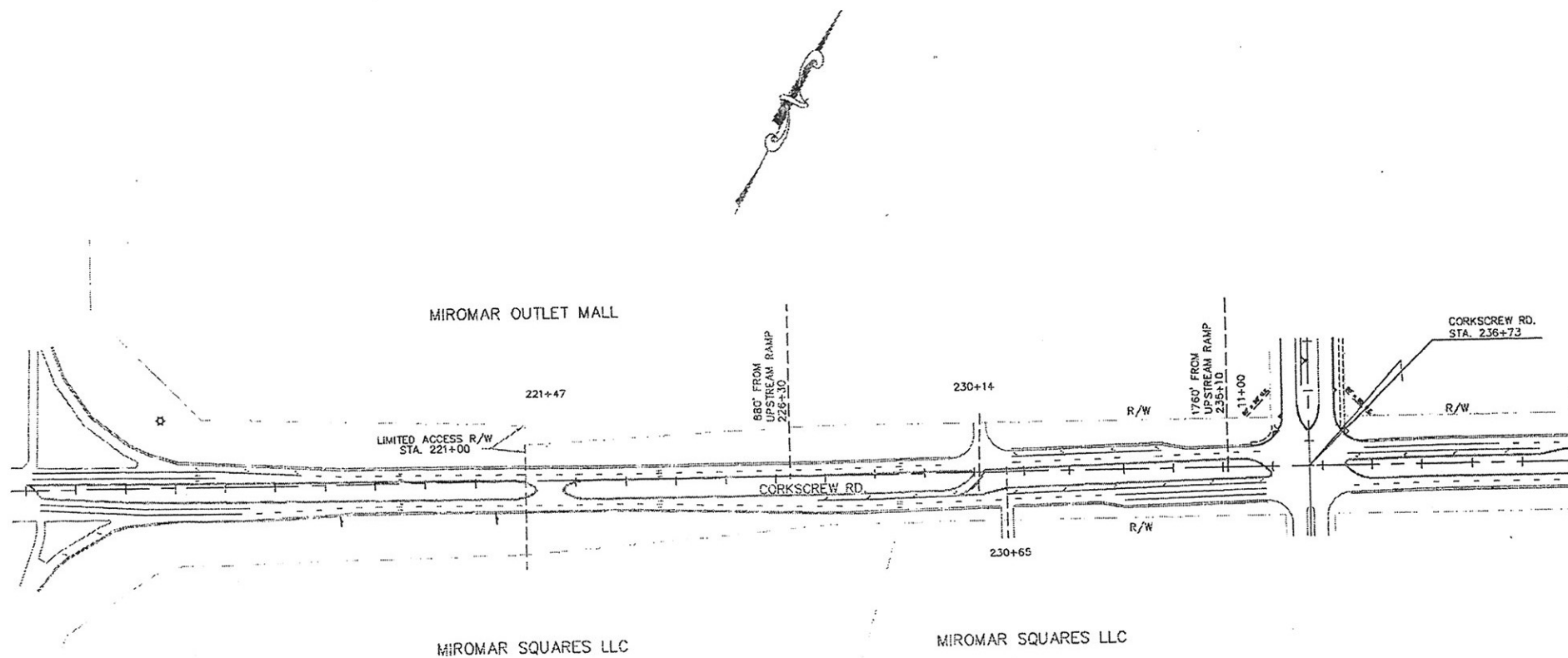
POLICY 1.4.2: The Outer Islands are sparsely settled, have minimal existing or planned infrastructure, and are very distant from major shopping and employment centers. They are not expected to be programmed to receive urban-type capital improvements in the time frame of this plan, and as such can anticipate a continued level of public services below that of other land use categories. The continuation of the Outer Islands essentially in their present character is intended to provide for a rural character and lifestyle, and conserve open space and important natural upland resources. Maximum density is one dwelling unit per acre (1 du/acre). (Amended by Ordinance No. 98-09)



MAP 3L
CORKSCREW ROAD-ACCESS PLAN
THREE OAKS PKWY. TO BEN HILL GRIFFIN PKWY.



MAP 3L - PAGE 2 OF 3
(ADDED BY ORDINANCE # 03 - 05)
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MAP 3L
CORKSCREW ROAD-ACCESS PLAN
THREE OAKS PKWY. TO BEN HILL GRIFFIN PKWY.

APPENDIX 2

CORKSCREW ROAD TRAFFIC OPERATIONS ASSESSMENT
DATED MARCH 6, 2006



CORKSCREW ROAD
TRAFFIC OPERATIONS ASSESSMENT

Project #06508

March 6, 2006

Prepared by:
DAVID PLUMMER & ASSOCIATES, INC.
1531 Hendry Street
Fort Myers, Florida 33901



CORKSCREW ROAD TRAFFIC OPERATIONS ASSESSMENT

Background

The Miromar Outlets is an existing factory outlets retail center in South Lee County. The Miromar Outlets is located in the northwest quadrant of the intersection of Corkscrew Road and Ben Hill Griffin Parkway, on the north side of Corkscrew Road between I-75 and Ben Hill Griffin Parkway, Exhibit 1.

Miromar Outlets is approved for a total of 700,000 square feet of commercial space. The existing Miromar Outlets consists of approximately 480,000 square feet of development. The remaining 220,000 square feet at the Miromar Outlets is anticipated to be built out by the year 2010.

Access to the Miromar Outlets includes a full median opening (Miromar North Entrance) and a directional median opening (Miromar South Entrance) onto Ben Hill Griffin Parkway and a directional median opening onto Corkscrew Road. In addition, there is an internal connection to the Germain Arena, which is to the north of Miromar Outlets.

The directional median opening onto Corkscrew Road is located approximately 1,600 feet east of the I-75 east ramps and 660 feet west of the Ben Hill Griffin Parkway intersection. Traffic operational problems have been experienced on Corkscrew Road between I-75 and Ben Hill Griffin Parkway.

This traffic study has been prepared to assess the operations of Corkscrew Road, from just west of I-75 to just east of Ben Hill Griffin Parkway, under various access management scenarios for the Miromar Outlets entrance, and recommend improvements that could alleviate the operational problems and enhance the performance of Corkscrew Road.

Executive Summary

This traffic study has been prepared to assess the operations of the Corkscrew Road corridor from just west of I-75 to just east of Ben Hill Griffin Parkway. This corridor is comprised of the I-75 ramps, Miromar Outlets directional median opening, and the intersection of Ben Hill Griffin Parkway. In addition, there is a right-in/right-out driveway on the south side of Corkscrew Road, between the I-75 east ramps and the Miromar Outlets directional median opening. This driveway serves the Miromar International Design Center.

Synchro 6, which is used in traffic modeling and simulation, was used to assess the performance of Corkscrew Road. Since the buildout of the Miromar Outlets is anticipated by year 2010, the year 2010 was considered as the horizon year for the purposes of this analysis. The arterial analysis for Corkscrew Road, under future 2010 conditions, was conducted for various access

management scenarios and the results are summarized in this report. These scenarios included the following:

- Scenario 1: Maintain existing access conditions with the existing directional median opening at the Miromar Outlets.
- Scenario 2: Convert the Miromar Outlets directional median opening to a right-in/right-out access only.
- Scenario 3: Maintain the directional median opening at the Miromar Outlets and signalize the eastbound left-turn movement.
- Scenario 4: Move the directional median opening at the Miromar Outlets to the west, provide dual eastbound left-turn lanes, and signalize the eastbound left-turn movement.
- Scenario 5: Maintain the existing directional median opening at the Miromar Outlets and prohibit southbound right-turn-on-red (RTOR) movements at the Corkscrew Road/Ben Hill Griffin Parkway intersection.

A comparison of the “measures of effectiveness” for the five scenarios is summarized below.

Comparison of Measures of Effectiveness

<u>Measure of Effectiveness</u>	<u>Scenario 1</u>	<u>Scenario 2</u>	<u>Scenario 3</u>	<u>Scenario 4</u>	<u>Scenario 5</u>
Total Delay/Vehicle (Sce/Veh)	24	24	23	24	24
Total Delay (Hours)	77	80	75	76	77
Stops/Vehicle	0.76	0.47	0.52	0.54	0.76
Stops	8,807	5,658	6,042	6,238	8,807
Performance Index	101	95	92	93	101
Eastbound Average Speed (MPH)	26.2	27.2	25.3	25.1	26.2
Eastbound Arterial LOS	C	C	C	C	C
Westbound Average Speed (MPH)	19.4	19.3	18.5	18.3	19.4
Westbound Arterial LOS	D	D	D	D	D
Corkscrew Road/Ben Hill Griffin Pkwy. Intersection Delay (sec)/LOS	34.4/C	43.9/D	34.2/C	34.3/C	67.8/E
Ben Hill Griffin Pkwy/ Miromar North Entrance Intersection Delay (sec)/LOS	14.9/B	16.9/B	14.9/B	14.8/B	15.1/B

Based on the evaluations presented in this report, it is concluded that converting the Miromar Outlets directional median opening on Corkscrew Road to a right-in/right-out movement only will adversely impact the traffic operations at the Corkscrew Road/Ben Hill Griffin Parkway and Ben Hill Griffin Parkway/Miromar North Entrance intersections by increasing the intersection delay by approximately 13% to 28%.

Signalizing the directional median opening (the eastbound left-turn movement entering the Miromar Outlets) will reduce the total delay and delay per vehicle on Corkscrew Road, maintain the arterial level of service (LOS) at LOS "C" in the eastbound and LOS "D" in the westbound direction, and result in the best performance index of the five alternatives.

Roadway Network

The existing roadway network in the vicinity of the Miromar Outlets is portrayed in Exhibit 1. The major roadways in the vicinity of the Miromar Outlets include I-75, Corkscrew Road and Ben Hill Griffin Parkway.

I-75 is a Florida DOT maintained four-lane Interstate Highway for the purposes of regional travel. Corkscrew Road is an east/west four-lane divided arterial in South Lee County connecting various north/south arterials, including US 41, Three Oaks Parkway and Ben Hill Griffin Parkway, to Interstate 75. Ben Hill Griffin Parkway is a four and six lane divided arterial roadway between Alico Road and Corkscrew Road.

Corkscrew Road

Corkscrew Road is four-lane divided roadway between US 41 and Ben Hill Griffin Parkway. It is a two-lane undivided roadway east of Ben Hill Griffin Parkway. Traffic operational problems have been experienced on Corkscrew Road, between I-75 and Ben Hill Griffin Parkway, and, in particular, at the I-75 ramps, the Miromar Outlets Entrance, and Ben Hill Griffin Parkway.

As part of this traffic study, the segment of Corkscrew Road from just west of I-75 to just east of Ben Hill Griffin Parkway is analyzed. This corridor is comprised of the I-75 ramps, Miromar Outlets directional median opening, and the intersection of Ben Hill Griffin Parkway, Exhibit 2. In addition, there is a right-in/right-out driveway on the south side of Corkscrew Road, between the I-75 east ramps and the Miromar Outlets directional median opening, into the Miromar International Design Center.

Committed Improvements

There are several roadway improvements scheduled for construction in the general vicinity of Miromar Outlets. Some of the more significant roadway improvement projects include the following.

- Corkscrew Road: Four-lane widening from Ben Hill Griffin Parkway to The Habitat Entrance – Fiscal Year 2006.
- Three Oaks Parkway Extension South: New four-lane roadway from East Terry Street to Bonita Bill Drive – Fiscal Year 2006.
- Estero Parkway Extension: New four-lane roadway from Three Oaks Parkway to Ben Hill Griffin Parkway – Fiscal Year 2006.
- Alico Road: Six-lane widening from east of US 41 to Three Oaks Parkway – Under Construction.
- I-75: Six-lane widening from south of Bonita Beach Road to Daniels Parkway – Fiscal Year 2008.
- I-75/Alico Interchange: Interchange Reconstruction – Under Construction.

The 2010 existing plus committed (E+C) roadway network used in this analysis reflects the above improvements.

Future Traffic Volumes

There is significant development along Corkscrew Road east of I-75. Miromar Outlets, which is located on the north side of Corkscrew Road between I-75 and Ben Hill Griffin Parkway, is an existing factory outlets retail center (Exhibit 1). It is approved for a total of 700,000 square feet of commercial space. The existing Miromar Outlets consists of approximately 480,000 square feet of development. The remaining 220,000 square feet is anticipated to be built out by the year 2010.

In addition to the Miromar Outlets, there are several other significant developments along Corkscrew Road and Ben Hill Griffin Parkway, including the Stoneybrook DRI (including the Miromar International Design Center), The Habitat, the Timberland and Tiburon DRI, Miromar Lakes DRI, Gulf Coast Town Center DRI, and Florida Gulf Coast University.

Miromar Outlets is anticipated to be built out by the year 2010. In addition, most of the above developments will be built out by 2010. Therefore, the year 2010 was considered as the horizon year for the purposes of this analysis.

Future 2010 traffic volume projections for the Corkscrew Road corridor were derived from a number of available sources, including the DRI traffic studies. Those traffic studies were previously submitted, reviewed, and accepted by the County and other review agencies. A list of all the traffic studies used in developing the future 2010 traffic volumes is provided Appendix A. The future 2010 traffic projections for the Miromar Outlets were based on the current development, existing traffic counts and the anticipated buildout development. A copy of the

most recent traffic counts conducted at the Miromar Outlets entrances is provided as part of Appendix B.

The future 2010 peak hour traffic volumes at the intersections along Corkscrew Road are summarized in Exhibit 3.

Alternative Scenarios

Synchro 6 was used to evaluate the performance of Corkscrew Road under various access management scenarios. The Synchro 6 roadway network was developed for Corkscrew Road from just west of I-75 south ramps to just east of Ben Hill Griffin Parkway (Exhibit 2).

The future 2010 peak hour traffic volumes at these intersections are summarized in Exhibit 3. Depending on the individual scenario, some specific turning movements were adjusted, when needed. For example, if the Miromar directional median opening on Corkscrew Road was limited to a right-in/right-out movement only, the eastbound left-turn volumes were shifted to the Corkscrew Road/Ben Hill Griffin Parkway intersection and then added to the Miromar North and South Entrances on Ben Hill Griffin Parkway as northbound left-turn movements.

A total of five different scenarios were developed and tested for Corkscrew Road. These scenarios are identified below.

- Scenario 1: Maintain existing access conditions with the existing directional median opening at the Miromar Outlets.
- Scenario 2: Convert the Miromar Outlets directional median opening to a right-in/right-out access only.
- Scenario 3: Maintain the directional median opening at the Miromar Outlets and signalize the eastbound left-turn movement.
- Scenario 4: Move the directional median opening at the Miromar Outlets to the west, provide dual eastbound left-turn lanes, and signalize the eastbound left-turn movement.
- Scenario 5: Maintain the existing directional median opening at the Miromar Outlets and prohibit southbound right-turn-on-red (RTOR) movements at the Corkscrew Road/Ben Hill Griffin Parkway intersection.

Scenarios 3 and 4 were tested with a traffic signal for the eastbound left-turn movement at the Miromar Outlets directional median opening. This signal is intended to facilitate the heavy eastbound left-turn movement entering the Miromar Outlets during the peak hours. The signal will not interfere with the continuous flow of eastbound traffic on Corkscrew Road. Also, there will be no separate green phase for the southbound traffic, except when the eastbound left turn is

protected, since it is a right turn outbound movement only. Therefore, it is not a typical full signal.

Arterial Analysis

For the various scenarios, an arterial analysis was performed for Corkscrew Road using Synchro 6. Synchro 6 is a traffic simulation and modeling software that replicates the signalized intersection capacity analysis as specified in the 2000 Highway Capacity Manual. Also, it has the ability to assess the arterial performance with respect to the traffic signal coordination and signal timing optimization.

For each scenario, the intersection offsets were optimized using Synchro 6, in order to provide the best possible arterial flow on Corkscrew Road. Various Measures of Effectiveness (MOE) were evaluated on an arterial level as well as a network level. The more relevant arterial and network wide MOE's included: performance index (PI); delay per vehicle; total delay hours; arterial level of service; and arterial speeds. In addition, the Corkscrew Road/Ben Hill Griffin Parkway and Ben Hill Griffin Parkway/Miromar North Entrance intersection operations were evaluated.

The various MOE's and arterial analysis results are summarized for each scenario in Exhibits 4 thru 8 for Scenario 1 thru 5, respectively. A comparison of the scenarios is presented in Exhibit 9 and summarized below.

Comparison of Measures of Effectiveness

<u>Measure of Effectiveness</u>	<u>Scenario 1</u>	<u>Scenario 2</u>	<u>Scenario 3</u>	<u>Scenario 4</u>	<u>Scenario 5</u>
Total Delay/Vehicle (Sec/Veh)	24	24	23	24	24
Total Delay (Hours)	77	80	75	76	77
Stops/Vehicle	0.76	0.47	0.52	0.54	0.76
Stops	8,807	5,658	6,042	6,238	8,807
Performance Index	101	95	92	93	101
Eastbound Average Speed (MPH)	26.2	27.2	25.3	25.1	26.2
Eastbound Arterial LOS	C	C	C	C	C
Westbound Average Speed (MPH)	19.4	19.3	18.5	18.3	19.4
Westbound Arterial LOS	D	D	D	D	D
Corkscrew Road/Ben Hill Griffin Pkwy. Intersection Delay (sec)/LOS	34.4/C	43.9/D	34.2/C	34.3/C	67.8/E
Ben Hill Griffin Pkwy/ Miromar North Entrance Intersection Delay (sec)/LOS	14.9/B	16.9/B	14.9/B	14.8/B	15.1/B

As shown in the above and Exhibit 9, the findings are as follows.

1. Total delay per vehicle was 24 seconds for all the scenarios, except for Scenario 3. Scenario 3 (signalized eastbound left-turn movement at the Miromar Outlets directional median opening) produced a slightly lower delay per vehicle of 23 seconds.
2. Total delay on Corkscrew Road varied from 75 hours to 80 hours, for Scenarios 1 to 5. Scenario 3 (signalized eastbound left-turn movement at the Miromar Outlets directional median opening) produced the lowest delay of 75 hours and Scenario 2 (converting the Miromar Outlet directional to a right-in/right-out only) produced the highest delay of 80 hours. (The higher delay for Scenario 2 can be attributed to the heavy eastbound left-turn volumes at the Corkscrew Road and Ben Hill Griffin Parkway intersection).
3. The Performance Index (PI), indicating the combined effect of delay, stops and queuing, varied from 92 to 101 for Scenarios 1 to 5. Scenario 3 (signalized eastbound left-turn movement at the Miromar Outlets directional median opening) produced the best (lowest) PI value of 92 and Scenario 1 and Scenario 5 (existing access and no RTOR at Corkscrew Road/Ben Hill Griffin Parkway intersection) produced the worst (highest) PI value of 101.
4. Based on arterial speeds, Corkscrew Road operated at LOS "C" in the eastbound direction and LOS "D" in the westbound direction for all scenarios.
5. At the Corkscrew Road/Ben Hill Griffin Parkway intersection, the intersection signal delay was approximately 28% higher for Scenario 2 (convert the Miromar Outlets directional to a right-in/right-out movement only) than Scenario 1 (existing access) and Scenario 3 (signalized eastbound left-turn movement at the Miromar Outlets directional median opening).
6. At the Ben Hill Griffin Parkway/Miromar North Entrance intersection, the intersection signal delay was approximately 13% higher for Scenario 2 (convert the Miromar Outlets directional to a right-in/right-out movement only) than Scenario 1 (existing access) and Scenario 3 (signalized eastbound left-turn movement at the Miromar Outlets directional median opening).
7. Scenarios 3 and 4 produced similar MOE's in terms of PI, delay per vehicle, arterial speeds and LOS.

Synchro 6 MOE reports and arterial levels of service reports are provided as part of Appendix C.

Conclusions

The conclusions of this traffic study are summarized below.

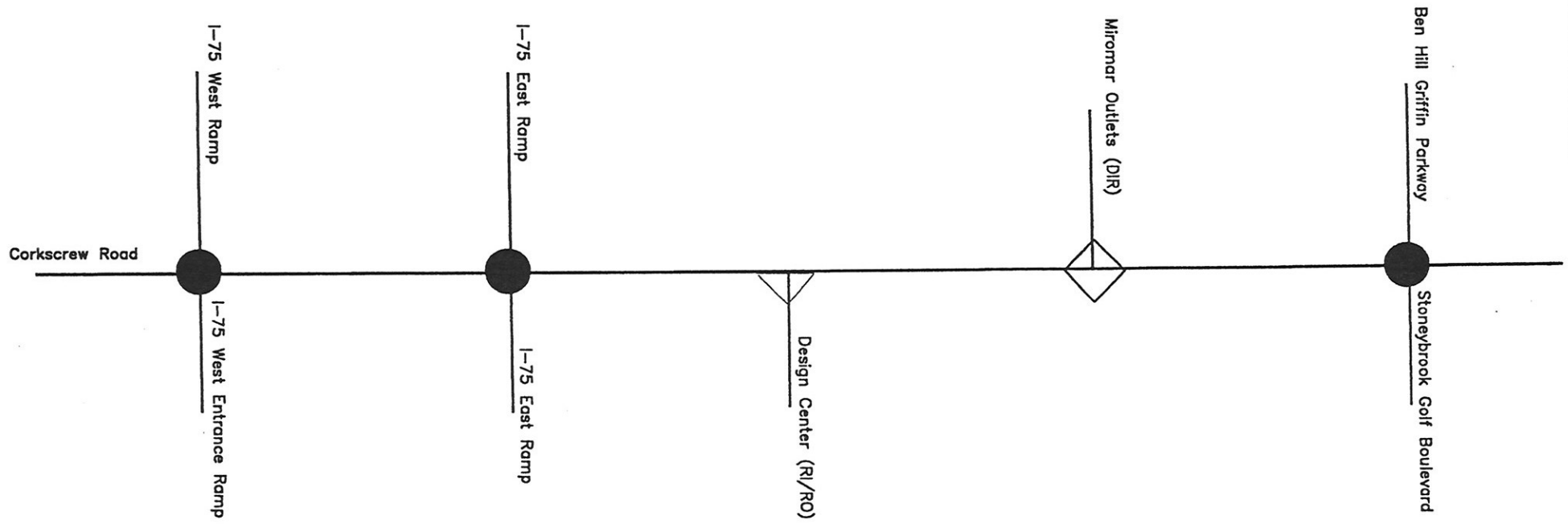
1. Miromar Outlets, which is located on the north side on Corkscrew Road between I-75 and Ben Hill Griffin Parkway, is an existing factory outlets retail center. It is approved for 700,000 square feet of commercial development with a buildout of 2010.
2. Access to Miromar Outlets includes a directional median opening onto Corkscrew Road, which is located approximately 1,600 feet east of the I-75 east ramps and 660 feet west of the Ben Hill Griffin Parkway intersection. Traffic operational problems have been experienced on Corkscrew Road, between the I-75 ramps and Ben Hill Griffin Parkway.
3. Based on the detailed arterial analysis, it is concluded that converting the Miromar Outlets directional median opening to a right-in/right-out movement only will adversely effect the operations of the Corkscrew Road/Ben Hill Griffin Parkway and the Ben Hill Griffin Parkway/Miromar North Entrance intersections by increasing the intersection delay by approximately 13% to 28%.
4. Signalizing the eastbound left-turn movement entering the Miromar Outlets will reduce the total delay and delay per vehicle on Corkscrew Road, while maintaining the arterial level of service at LOS "C" in the eastbound and LOS "D" in the westbound direction. In addition, this scenario produced the best (lowest) Performance Index value.



CORKSCREW ROAD
TRAFFIC OPERATIONS ASSESSMENT

PROJECT LOCATION MAP

06508/01A/0206



LEGEND

- Signal
- ◇ Directional Median Opening
- ▽ Right-in/Right-out Only



CORKSCREW ROAD TRAFFIC
OPERATIONS ASSESSMENT

CORKSCREW ROAD INTERSECTIONS

06508/02A/0206

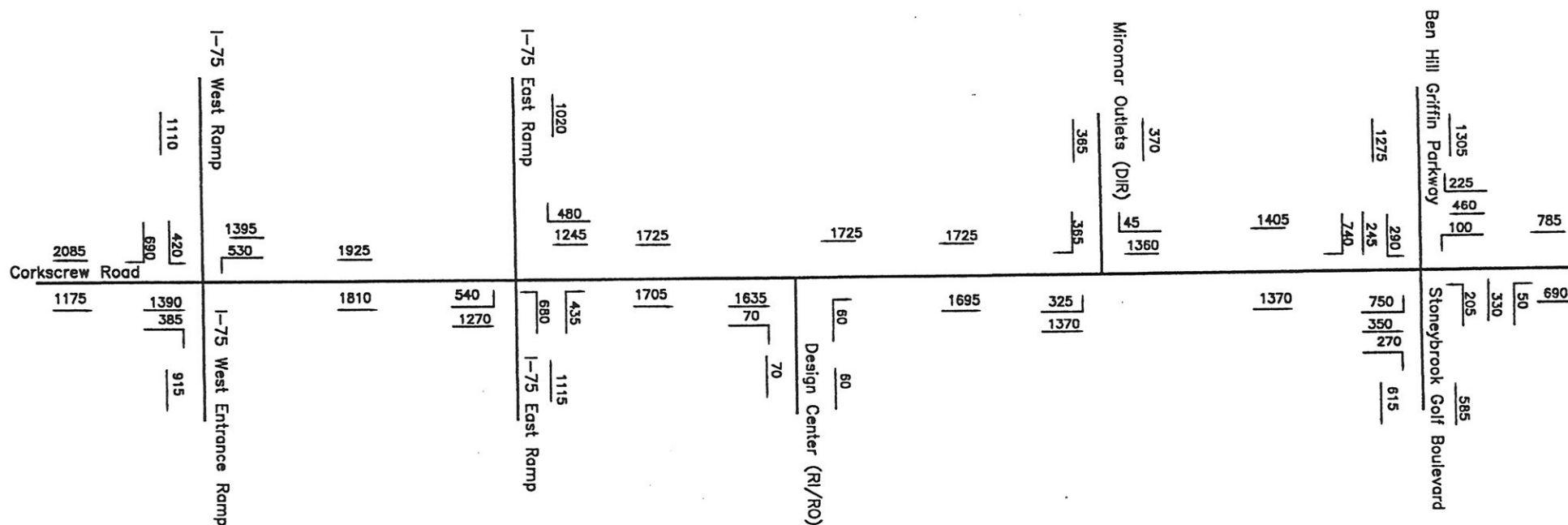


EXHIBIT 4
CORKSCREW ROAD
TRAFFIC OPERATIONS ASSESSMENT

(1,2)

Scenario 1: Measures of Effectiveness

Corkscrew Road

Measure of Effectiveness

Total Delay/Vehicle	24 Sec/Veh
Total Delay	77 Hours
Stops/Vehicle	0.76
Stops	8,807
Performance Index	101
Average Speed (EB)	26.20 Mph
Arterial LOS (EB)	C
Average Speed (WB)	19.40 Mph
Arterial LOS (WB)	D

Intersection Analyses

<u>Intersection</u>	<u>Dealy (sec)</u>	<u>LOS</u>
Corkscrew Road/Ben Hill Griffin Parkway	34.4	C
Ben Hill Griffin Parkway/Miromar North Entrance	14.9	B

Footnotes:

- (1) Scenario 1: Existing access, with existing directional median opening at the Miromar Outlets.
- (2) Based on the detailed measures of effectiveness report from Synchro 6 (Please refer to Appendix C).

EXHIBIT 5
CORKSCREW ROAD
TRAFFIC OPERATIONS ASSESSMENT

(1,2)

Scenario 2: Measures of Effectiveness

Corkscrew Road

Measure of Effectiveness

Total Delay/Vehicle	24 Sec/Veh
Total Delay	80 Hours
Stops/Vehicle	0.47
Stops	5,658
Performance Index	95
Average Speed (EB)	27.2 Mph
Arterial LOS (EB)	C
Average Speed (WB)	19.3 Mph
Arterial LOS (WB)	D

Intersection Analyses

<u>Intersection</u>	<u>Dealy (sec)</u>	<u>LOS</u>
Corkscrew Road/Ben Hill Griffin Parkway	43.9	D
Ben Hill Griffin Parkway/Miromar North Entrance	16.9	B

Footnotes:

- (1) Scenario 2: Convert the Miromar Outlets directional median opening to a right-in/right-out access only.
- (2) Based on the detailed measures of effectiveness report from Synchro 6 (Please refer to Appendix C).

EXHIBIT 6
CORKSCREW ROAD
TRAFFIC OPERATIONS ASSESSMENT

(1,2)

Scenario 3: Measures of Effectiveness

Corkscrew Road

Measure of Effectiveness

Total Delay/Vehicle	23 Sec/Veh
Total Delay	75 Hours
Stops/Vehicle	0.52
Stops	6,042
Performance Index	92
Average Speed (EB)	25.3 Mph
Arterial LOS (EB)	C
Average Speed (WB)	18.5 Mph
Arterial LOS (WB)	D

Intersection Analyses

<u>Intersection</u>	<u>Dealy (sec)</u>	<u>LOS</u>
Corkscrew Road/Ben Hill Griffin Parkway	34.2	C
Ben Hill Griffin Parkway/Miromar North Entrance	14.9	B

Footnotes:

- (1) Scenario 3: Signalized eastbound left-turn movement at the Miromar Outlets directional median opening.
- (2) Based on the detailed measures of effectiveness report from Synchro 6 (Please refer to Appendix C).

EXHIBIT 7
CORKSCREW ROAD
TRAFFIC OPERATIONS ASSESSMENT

(1,2)

Scenario 4: Measures of Effectiveness

Corkscrew Road

Measure of Effectiveness

Total Delay/Vehicle	24 Sec/Veh
Total Delay	76 Hours
Stops/Vehicle	0.54
Stops	6,238
Performance Index	93
Average Speed (EB)	25.1 Mph
Arterial LOS (EB)	C
Average Speed (WB)	18.3 Mph
Arterial LOS (WB)	D

Intersection Analyses

<u>Intersection</u>	<u>Dealy (sec)</u>	<u>LOS</u>
Corkscrew Road/Ben Hill Griffin Parkway	34.3	C
Ben Hill Griffin Parkway/Miromar North Entrance	14.8	B

Footnotes:

- (1) Scenario 4: Move the directional median opening at Miromar Outlets provide dual eastbound left-turn lanes and signalize the movement.
- (2) Based on the detailed measures of effectiveness report from Synchro 6 (Please refer to Appendix C).

EXHIBIT 8
CORKSCREW ROAD
TRAFFIC OPERATIONS ASSESSMENT

(1,2)

Scenario 5: Measures of Effectiveness

Corkscrew Road

Measure of Effectiveness

Total Delay/Vehicle	24 Sec/Veh
Total Delay	77 Hours
Stops/Vehicle	0.76
Stops	8,807
Performance Index	101
Average Speed (EB)	26.2 Mph
Arterial LOS (EB)	C
Average Speed (WB)	19.4 Mph
Arterial LOS (WB)	D

Intersection Analyses

<u>Intersection</u>	<u>Dealy (sec)</u>	<u>LOS</u>
Corkscrew Road/Ben Hill Griffin Parkway	67.8	E
Ben Hill Griffin Parkway/Miromar North Entrance	15.1	B

Footnotes:

- (1) Scenario 5: Existing access, with existing directional median opening at the Miromar Outlets and no southbound RTOR movement at Corkscrew Road/Ben Hill Griffin Parkway intersection.
- (2) Based on the detailed measures of effectiveness report from Synchro 6 (Please refer to Appendix C).

EXHIBIT 9
CORKSCREW ROAD
TRAFFIC OPERATIONS ASSESSMENT

(1)

Comparison of Measures of Effectiveness

<u>Corkscrew Road</u>		(2)	(3)	(4)	(5)	(6)
<u>Measure of Effectiveness</u>		<u>Scenario 1</u>	<u>Scenario 2</u>	<u>Scenario 3</u>	<u>Scenario 4</u>	<u>Scenario 5</u>
Total Delay/Vehicle	Sec/Veh	24	24	23	24	24
Total Delay	Hours	77	80	75	76	77
Stops/Vehicle		0.76	0.47	0.52	0.54	0.76
Stops		8,807	5,658	6,042	6,238	8,807
Performance Index		101	95	92	93	101
Average Speed (EB)	Mph	26.20	27.2	25.3	25.1	26.2
Arterial LOS (EB)		C	C	C	C	C
Average Speed (WB)	Mph	19.40	19.3	18.5	18.3	19.4
Arterial LOS (WB)		D	D	D	D	D

Intersection Analyses

<u>Intersection</u>	(2)	(3)	(4)	(5)	(6)
	<u>Scenario 1</u>	<u>Scenario 2</u>	<u>Scenario 3</u>	<u>Scenario 4</u>	<u>Scenario 5</u>
Corkscrew Road/Ben Hill Griffin Parkway (Delay in Sec/LOS)	34.4/C	43.9/D	34.2/C	34.3/C	67.8/E
Ben Hill Griffin Parkway/Miromar North Entrance (Delay in Sec/LOS)	14.9/B	16.9/B	14.9/B	14.8/B	15.1/B

Footnotes:

- (1) Based on detailed measures of effectiveness reports, arterial performance reports and intersection reports from Synchro 6.
- (2) Scenario 1: Existing access, with existing directional median opening at the Miromar Outlets.
- (3) Scenario 2: Convert the Miromar Outlets directional median opening to a right-in/right-out access only.
- (4) Scenario 3: Signalized eastbound left-turn movement at the Miromar Outlets directional median opening.
- (5) Scenario 4: Move the directional median opening at the Miromar Outlets west, provide dual eastbound left-turn lanes and signalize the movement.
- (6) Scenario 5: Existing access, with existing directional median opening at Miromar Outlets and no southbound RTOR movement at the Corkscrew Road/Ben Hill Griffin Parkway intersection.

APPENDIX A

SOURCE INFORMATION 2010 FUTURE TRAFFIC VOLUMES

CORKSCREW ROAD
TRAFFIC OPERATIONS ASSESSMENT

TRAFFIC STUDIES REFERENCED IN DEVELOPING
FUTURE 2010 TRAFFIC VOLUMES

1. Gulf Coast Town Center Local Development Order Master Traffic Impact Statement, dated February 11, 2004.
2. Miromar Lakes DRI Application For Development Approval, Sufficiency Response VI, Question 21. Transportation, dated June 19, 1998.
3. Florida Gulf Coast University (FGCU) Enrollment and Degree Planning Committee Report, dated June 17, 2004.
4. Final Traffic Memorandum, Koreshan Boulevard Extension, CN-01-17, From Three Oaks Parkway to Ben Hill Griffin Parkway, Lee County, dated April, 2003.
5. Miromar Lakes Boulevard/Ben Hill Griffin Parkway Traffic Signal Warrant Analysis, May 2, 2005.
6. The Shoppes At Grande Oaks Parcel 3 Local Development Order Traffic Impact Statement, dated Revised June 17, 2003.
7. Miromar Square CPD Traffic Impact Statement, dated January 11, 2005.
8. Miromar Outlets Phase V Traffic Impact Statement, dated October 13, 2005.
9. Miromar Outlets North Entrance / Ben Hill Griffin Parkway Traffic Signal Warrant Analysis, dated May 2, 2005.
10. Humphrey Trust Parcel At Timberland & Tiburon Traffic Study, dated July 16, 2001.

APPENDIX B
MIROMAR OUTLETS TRAFFIC COUNTS

DAVID J. SUMMERS & ASSOCIATES
SUMMARY OF VEHICLE MOVEMENTS

LOCATION: Corkscrew @ Miromar Outlets
COUNTY : Lee
WEATHER : Good
ROAD CONDITION Good

CITY: Fort Myers
DATE: 09/07/05

TIME		NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				GRAND
BEGIN	END	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	TOTAL
07:00 AM	07:15 AM	0	0	0	0	0	0	7	7	13	115	0	128	0	124	5	129	264
07:15 AM	07:30 AM	0	0	0	0	0	0	8	8	14	123	0	137	0	171	5	176	321
07:30 AM	07:45 AM	0	0	0	0	0	0	10	10	11	142	0	153	0	172	4	176	339
07:45 AM	08:00 AM	0	0	0	0	0	0	9	9	15	157	0	172	0	184	8	192	373
08:00 AM	08:15 AM	0	0	0	0	0	0	15	15	17	163	0	180	0	140	5	145	340
08:15 AM	08:30 AM	0	0	0	0	0	0	18	18	24	155	0	179	0	150	6	156	353
08:30 AM	08:45 AM	0	0	0	0	0	0	14	14	32	140	0	172	0	143	7	150	336
08:45 AM	09:00 AM	0	0	0	0	0	0	16	16	39	135	0	174	0	144	9	153	343
09:00 AM	09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 AM	09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 AM	09:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45 AM	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00 PM	01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 PM	01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30 PM	01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00 PM	02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM	02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 PM	03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00 PM	04:15 PM	0	0	0	0	0	0	44	44	29	170	0	199	0	135	7	142	385
04:15 PM	04:30 PM	0	0	0	0	0	0	51	51	33	164	0	197	0	141	5	146	394
04:30 PM	04:45 PM	0	0	0	0	0	0	46	46	47	213	0	260	0	152	11	163	469
04:45 PM	05:00 PM	0	0	0	0	0	0	62	62	49	227	0	276	0	162	6	168	506
05:00 PM	05:15 PM	0	0	0	0	0	0	64	64	56	214	0	270	0	201	5	206	540
05:15 PM	05:30 PM	0	0	0	0	0	0	55	55	44	211	0	255	0	163	8	171	481
05:30 PM	05:45 PM	0	0	0	0	0	0	49	49	52	248	0	300	0	157	4	161	510
05:45 PM	06:00 PM	0	0	0	0	0	0	57	57	41	239	0	280	0	136	9	145	482

DAVID PLUMMER & ASSOCIATES
HOURLY SUMMARY OF VEHICLE MOVEMENTS

LOCATION: Corkscrew @ Miromar Outlets
COUNTY : Lee
WEATHER : Good
ROAD CONDITION Good

CITY: Fort Myers
REMARKS : 09/07/05

TIME		NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				GRAND
BEGIN	END	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	TOTAL
07:00 AM	08:00 AM	0	0	0	0	0	0	34	34	53	537	0	590	0	651	22	673	1297
08:00 AM	09:00 AM	0	0	0	0	0	0	63	63	112	593	0	705	0	577	27	604	1372
09:00 AM	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00 PM	02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00 PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 PM	04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00 PM	05:00 PM	0	0	0	0	0	0	203	203	158	774	0	932	0	590	29	619	1754
05:00 PM	06:00 PM	0	0	0	0	0	0	225	225	193	912	0	1105	0	657	26	683	2013

DAVID PLUMMER & ASSOCIATES
PEAK HOUR CALCULATIONS

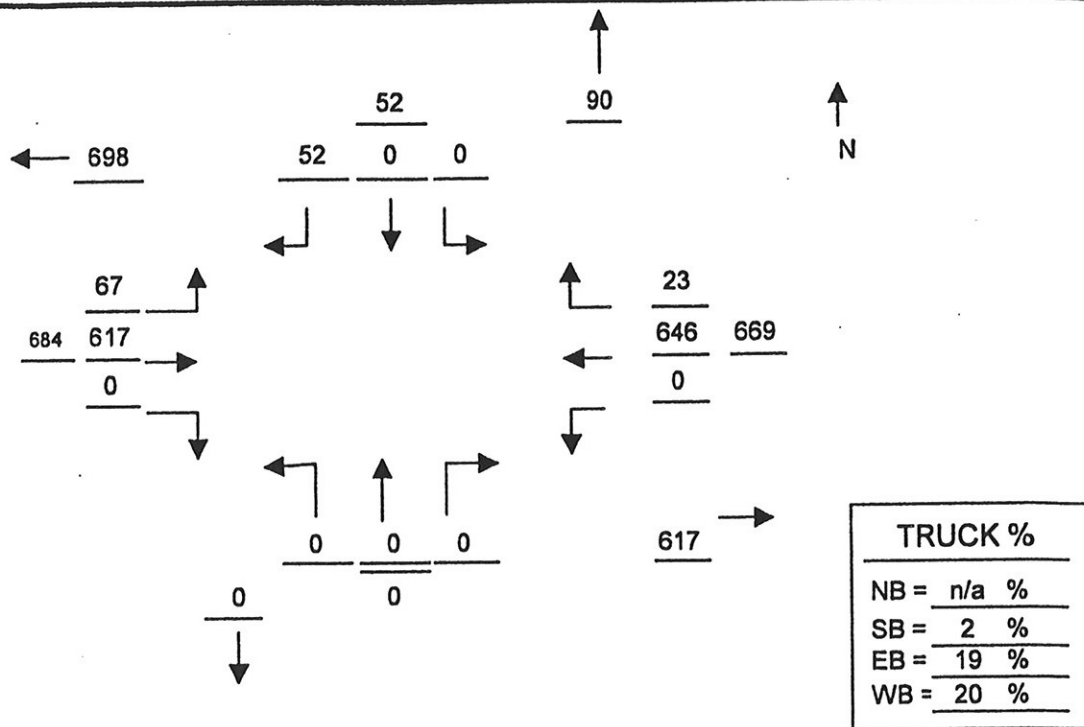
PEAK HOUR		NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				GRAND
BEGIN	END	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	TOTAL
M PEAK																		
07:30 AM	08:30 AM	0	0	0	0	0	0	52	52	67	617	0	684	0	646	23	669	1405
PEAK HOUR FACTOR		#N/A				0.72				0.95				0.87				0.94
MIDDAY PEAK																		
12:00 PM	01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HOUR FACTOR		#N/A				#N/A				#N/A				#N/A				#N/A
EVENING PEAK																		
04:45 PM	05:45 PM	0	0	0	0	0	0	230	230	201	900	0	1101	0	683	23	706	2037
PEAK HOUR FACTOR		#N/A				0.90				0.92				0.86				0.94

RAW TURNING MOVEMENT DIAGRAM

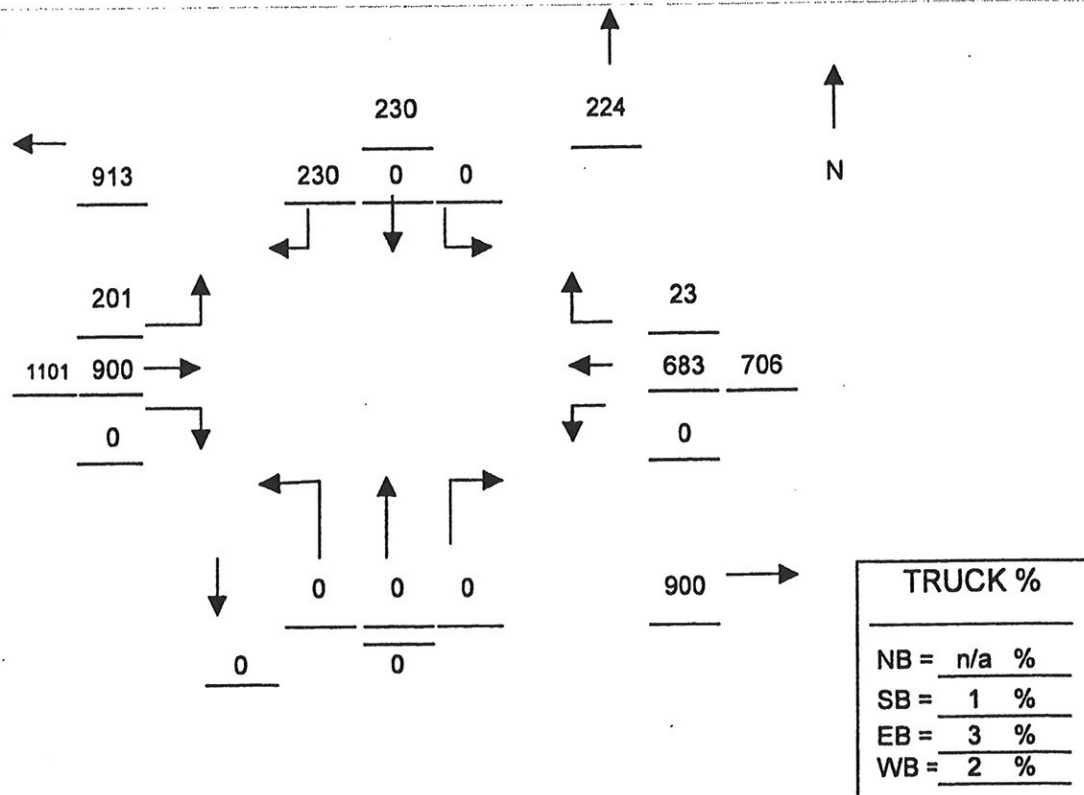
LOCATION: Corkscrew @ Miromar Outlets
COUNTY : Lee

CITY: Fort Myers
DATE: 09/07/05

AM Peak Hour



PM Peak Hour



SUMMARY OF VEHICLE MOVEMENTS

LOCATION: Ben Hill Griffin @ South Miromar Outlets
 COUNTY : Lee
 WEATHER : Good
 ROAD CONDITION Good

CITY: Fort Myers
 DATE: 09/07/05

TIME		NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				GRAND
BEGIN	END	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	TOTAL
7:00 AM	07:15 AM	4	60	8	72	7	71	3	81	0	0	4	4	0	0	4	4	161
7:15 AM	07:30 AM	3	70	9	82	8	88	3	99	0	0	5	5	0	0	4	4	190
7:30 AM	07:45 AM	4	94	17	115	12	79	5	96	0	0	9	9	0	0	7	7	227
7:45 AM	08:00 AM	4	102	26	132	11	98	5	114	0	0	8	8	0	0	6	6	260
8:00 AM	08:15 AM	5	98	24	127	9	97	2	108	0	0	7	7	0	0	6	6	248
8:15 AM	08:30 AM	3	109	35	147	10	102	4	116	0	0	9	9	0	0	4	4	276
8:30 AM	08:45 AM	2	101	37	140	12	103	6	121	0	0	9	9	0	0	7	7	277
8:45 AM	09:00 AM	3	92	36	131	13	103	3	119	0	0	8	8	0	0	4	4	262
9:00 AM	09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	09:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00 PM	01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 PM	01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30 PM	01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00 PM	02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM	02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 PM	03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00 PM	04:15 PM	8	100	42	150	4	161	7	172	0	0	26	26	0	0	13	13	361
04:15 PM	04:30 PM	99	99	46	244	7	162	9	178	0	0	24	24	0	0	14	14	460
04:30 PM	04:45 PM	13	101	47	161	8	159	8	175	0	0	29	29	0	0	11	11	376
04:45 PM	05:00 PM	15	102	51	168	9	158	7	174	0	0	27	27	0	0	17	17	386
05:00 PM	05:15 PM	17	96	48	161	9	146	13	168	0	0	18	18	0	0	15	15	362
05:15 PM	05:30 PM	10	100	43	153	6	144	11	161	0	0	16	16	0	0	17	17	347
05:30 PM	05:45 PM	8	93	42	143	7	147	9	163	0	0	22	22	0	0	9	9	337
05:45 PM	06:00 PM	9	94	35	138	4	143	8	155	0	0	15	15	0	0	8	8	316

CITY: Fort Myers
REMARKS : 09/07/05

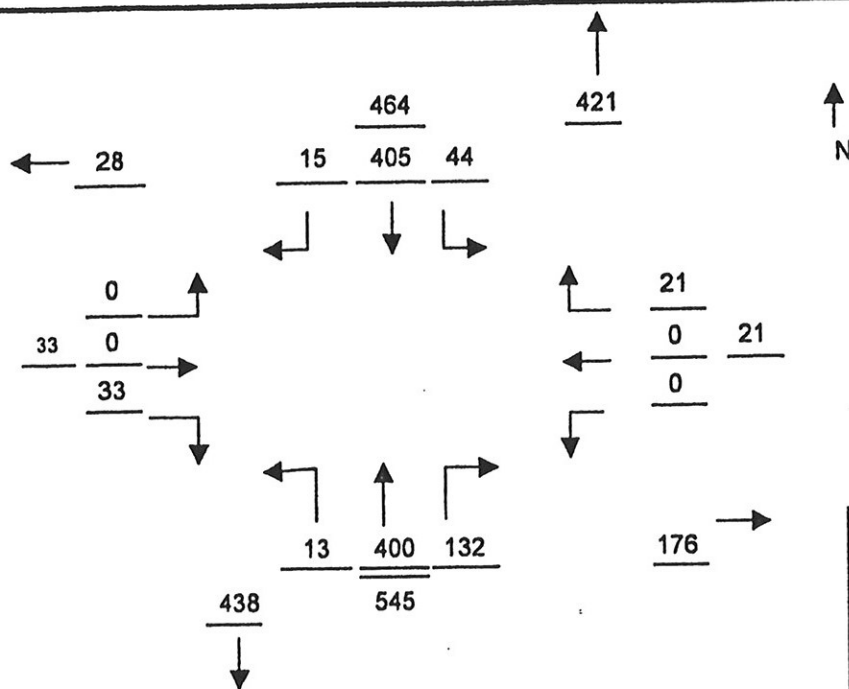
PEAK HOUR		NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				GRAND
BEGIN	END	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	TOTAL
M PEAK																		
08:00 AM	09:00 AM	13	400	132	545	44	405	15	464	0	0	33	33	0	0	21	21	1063
PEAK HOUR FACTOR		0.93				0.96				0.92				0.75				0.96
DDAY PEAK																		
08:00 PM	01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HOUR FACTOR		#N/A				#N/A				#N/A				#N/A				#N/A
I PEAK																		
05:15 PM	05:15 PM	144	398	192	734	33	625	37	695	0	0	98	98	0	0	57	57	1584
PEAK HOUR FACTOR		0.75				0.98				0.84				0.84				0.86

RAW TURNING MOVEMENT DIAGRAM

LOCATION: Ben Hill Griffin @ South Miromar Outlets
 COUNTY: Lee

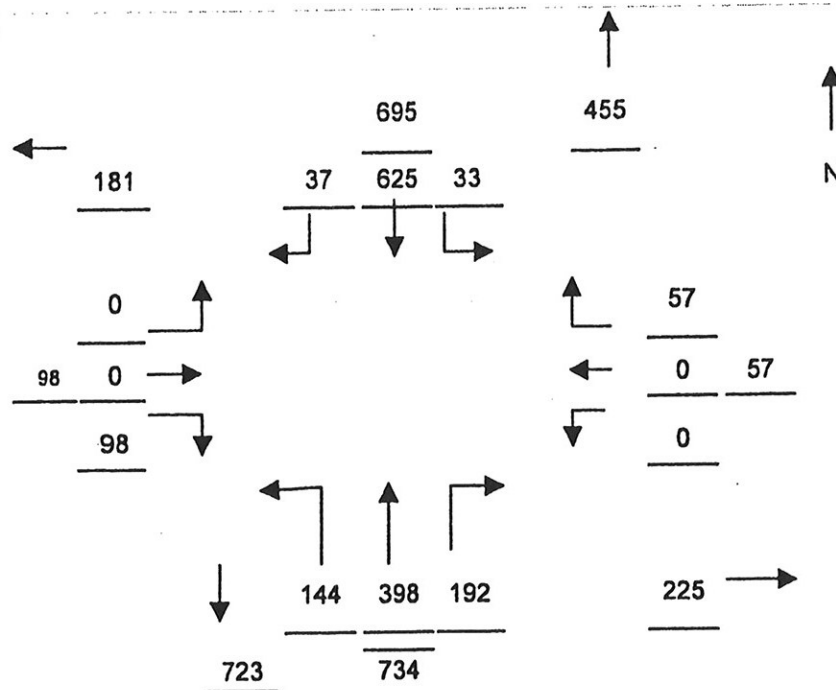
CITY: Fort Myers
 DATE: 09/07/05

AM Peak Hour



TRUCK %		
NB =	2	%
SB =	2	%
EB =	3	%
WB =	5	%

PM Peak Hour



TRUCK %		
NB =	3	%
SB =	3	%
EB =	1	%
WB =	2	%

DAVID T. LUMMER & ASSOCIATES
SUMMARY OF VEHICLE MOVEMENTS

LOCATION: Ben Hill Griffin @ North Miromar Outlets
COUNTY : Lee
WEATHER : Good
ROAD CONDITION: Good

CITY: Fort Myers
DATE: 09/07/05

TIME		NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				GRAND
BEGIN	END	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	TOTAL
07:00 AM	07:15 AM	5	53	6	64	8	72	1	81	5	1	2	8	7	1	16	24	177
07:15 AM	07:30 AM	7	59	8	74	10	82	3	95	7	0	2	9	15	1	17	33	211
07:30 AM	07:45 AM	5	87	9	101	11	81	3	95	6	0	1	7	14	3	13	30	233
07:45 AM	08:00 AM	8	93	7	108	15	93	4	112	4	2	4	10	17	4	10	31	261
08:00 AM	08:15 AM	9	87	8	104	13	90	2	105	8	1	5	14	13	2	12	27	250
08:15 AM	08:30 AM	6	96	11	113	11	94	6	111	5	3	3	11	19	2	14	35	270
08:30 AM	08:45 AM	11	88	9	108	15	97	8	120	7	2	5	14	19	4	11	34	276
08:45 AM	09:00 AM	13	74	9	96	17	95	8	120	6	2	6	14	18	8	15	41	271
09:00 AM	09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 AM	09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 AM	09:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45 AM	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00 PM	01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 PM	01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30 PM	01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00 PM	02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM	02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 PM	03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00 PM	04:15 PM	8	103	2	113	24	140	4	168	19	7	9	35	23	5	28	56	372
04:15 PM	04:30 PM	11	97	5	113	22	151	5	178	22	5	13	40	14	7	31	52	383
04:30 PM	04:45 PM	9	100	3	112	18	136	5	159	24	8	14	46	25	4	27	56	373
04:45 PM	05:00 PM	12	104	3	119	19	142	6	167	17	11	15	43	17	2	29	48	377
05:00 PM	05:15 PM	13	96	2	111	26	137	8	171	23	7	12	42	19	0	31	50	374
05:15 PM	05:30 PM	12	101	4	117	24	125	4	153	31	8	15	54	21	1	23	45	369
05:30 PM	05:45 PM	7	93	2	102	19	131	6	156	22	9	16	47	16	2	19	37	342
05:45 PM	06:00 PM	10	87	5	102	21	119	5	145	24	5	14	43	22	2	24	48	338

DAVID FLUMMER & ASSOCIATES
HOURLY SUMMARY OF VEHICLE MOVEMENTS

LOCATION: Ben Hill Griffin @ North Miromar Outlets

COUNTY : Lee

CITY: Fort Myers

WEATHER : Good

REMARKS : 09/07/05

ROAD CONDITION Good

TIME		NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				GRAND
BEGIN	END	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	TOTAL
07:00 AM	08:00 AM	25	292	30	347	44	328	11	383	22	3	9	34	53	9	56	118	882
08:00 AM	09:00 AM	39	345	37	421	56	376	24	456	26	8	19	53	69	16	52	137	1067
09:00 AM	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00 PM	02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00 PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 PM	04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00 PM	05:00 PM	40	404	13	457	83	569	20	672	82	31	51	164	79	18	115	212	1505
05:00 PM	06:00 PM	42	377	13	432	90	512	23	625	100	29	57	186	78	5	97	180	1423

**DAVID PLUMMER & ASSOCIATES
PEAK HOUR CALCULATIONS**

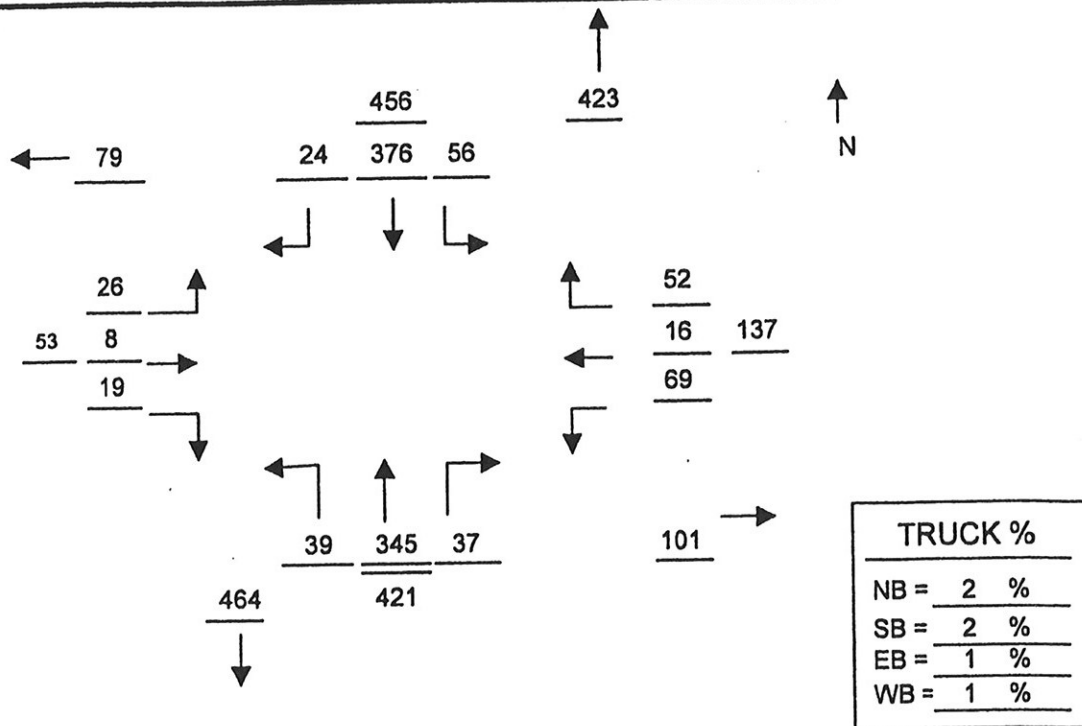
PEAK HOUR		NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				GRAND
BEGIN	END	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	TOTAL
AM PEAK																		
08:00 AM	09:00 AM	39	345	37	421	56	376	24	456	26	8	19	53	69	16	52	137	1067
PEAK HOUR FACTOR		0.93				0.95				0.95				0.84				0.97
MIDDAY PEAK																		
12:00 PM	01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HOUR FACTOR		#N/A				#N/A				#N/A				#N/A				#N/A
PM PEAK																		
04:15 PM	05:15 PM	45	397	13	455	85	566	24	675	86	31	54	171	75	13	118	206	1507
PEAK HOUR FACTOR		0.96				0.95				0.93				0.92				0.98

RAW TURNING MOVEMENT DIAGRAM

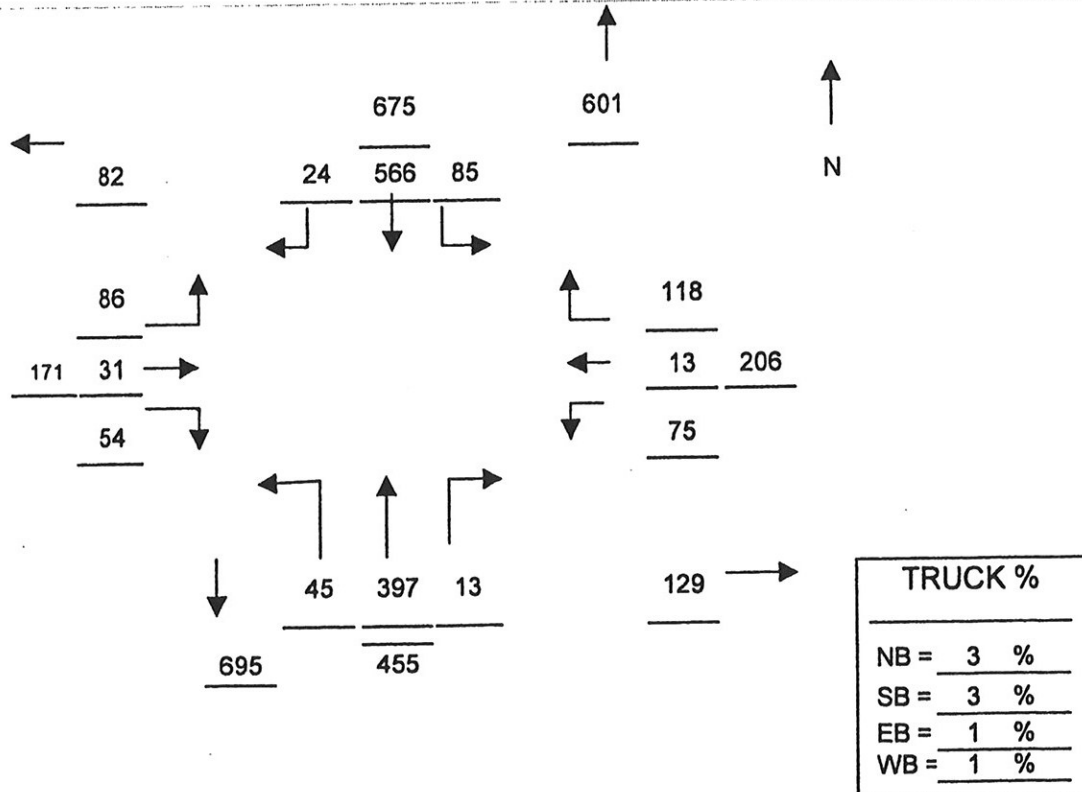
LOCATION: Ben Hill Griffin @ North Miromar Outlets
 COUNTY : Lee

CITY: Fort Myers
 DATE: 09/07/05

AM Peak Hour



PM Peak Hour



APPENDIX C
SYNCHRO ANALYSIS

DETAILED MEASURES OF EFFECTIVENESS

Scenario Information

Scenario #1

Filename: G:\06508\Scenario 1.sy7
Location: Corkscrew Road Assessment, #06508
Data Date: 1/23/2006
Timing Plan ID: PM Peak Hr.
Alternative: Scenario 1: Existing Access
Number of Signalized Intersections: 10
Most Popular Cycle Length: 120

Scenario #2

Filename: G:\06508\Scenario 2.sy7
Location: Corkscrew Road Assessment, #06508
Data Date: 1/23/2006
Timing Plan ID: PM Peak Hr.
Alternative: Scenario 2: Right-In/Right-Out Only
Number of Signalized Intersections: 10
Most Popular Cycle Length: 120

Scenario #3

Filename: G:\06508\Scenario 3.sy7
Location: Corkscrew Road Assessment, #06508
Data Date: 1/23/2006
Timing Plan ID: PM Peak Hr.
Alternative: Scenario 3: Directional Signal
Number of Signalized Intersections: 11
Most Popular Cycle Length: 120

Scenario #4

Filename: G:\06508\Scenario 4.sy7
Location: Corkscrew Road Assessment, #06508
Data Date: 1/23/2006
Timing Plan ID: PM Peak Hr.
Alternative: Scenario 4: Directional Signal, Dual EBL
Number of Signalized Intersections: 11
Most Popular Cycle Length: 120

Scenario #5

Filename: G:\06508\Scenario 5.sy7
Location: Corkscrew Road Assessment, #06508
Data Date: 1/23/2006
Timing Plan ID: PM Peak Hr.
Alternative: Scenario 5: No SB RTOR at BHG
Number of Signalized Intersections: 10
Most Popular Cycle Length: 120

Corkscrew Road Assessment, #06508
Detailed Alternative Comparisons

Multiple
Timing Plan: PM Peak Hr.

Corkscrew Road

Scenario #	1	2	3	4	5
Control Delay / Veh (s/v)	23	24	23	23	23
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	24	24	23	24	24
Total Delay (hr)	77	80	75	76	77
Stops / Veh	0.76	0.47	0.52	0.54	0.76
Stops (#)	8807	5658	6042	6238	8807
Average Speed (mph)	21	21	21	21	21
Total Travel Time (hr)	145	148	143	144	145
Distance Traveled (mi)	3055	3096	3055	3043	3055
Fuel Consumed (gal)	270	235	235	238	270
Fuel Economy (mpg)	11.3	13.2	13.0	12.8	11.3
CO Emissions (kg)	18.90	16.41	16.42	16.61	18.90
NOx Emissions (kg)	3.68	3.19	3.19	3.23	3.68
VOC Emissions (kg)	4.38	3.80	3.81	3.85	4.38
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	201	201	281	276	201
Performance Index	101.1	95.3	91.9	93.3	101.1

ARTERIAL PERFORMANCE

Arterial Level of Service: EB Corkscrew Road

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
I-75 SB Ramps	II	45	47.2	28.4	75.6	0.59	28.1	B
I-75 NB Ramps	II	45	12.3	5.4	17.7	0.11	22.9	C
Ben Hill Griffin Par	II	45	42.9	27.3	70.2	0.49	25.0	C
Total	II		102.4	61.1	163.5	1.19	26.2	C

Arterial Level of Service: WB Corkscrew Road

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Ben Hill Griffin Par	II	45	44.9	59.7	104.6	0.51	17.6	D
I-75 NB Ramps	II	45	42.9	30.3	73.2	0.49	24.0	C
I-75 SB Ramps	II	45	12.3	15.7	28.0	0.11	14.5	E
Total	II		100.1	105.7	205.8	1.11	19.4	D

Arterial Level of Service: EB Corkscrew Road

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
I-75 SB Ramps	II	45	47.2	28.4	75.6	0.59	28.1	B
I-75 NB Ramps	II	45	12.3	5.4	17.7	0.11	22.9	C
Ben Hill Griffin Par	II	45	42.9	21.2	64.1	0.49	27.4	C
Total	II		102.4	55.0	157.4	1.19	27.2	C

Arterial Level of Service: WB Corkscrew Road

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Ben Hill Griffin Par	II	45	44.9	60.7	105.6	0.51	17.4	D
I-75 NB Ramps	II	45	42.9	30.3	73.2	0.49	24.0	C
I-75 SB Ramps	II	45	12.3	15.7	28.0	0.11	14.5	E
Total	II		100.1	106.7	206.8	1.11	19.3	D

Arterial Level of Service: EB Corkscrew Road

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
I-75 SB Ramps	II	45	47.2	28.4	75.6	0.59	28.1	B
I-75 NB Ramps	II	45	12.3	5.4	17.7	0.11	22.9	C
	II	45	34.7	0.4	35.1	0.36	37.0	A
Ben Hill Griffin Par	II	45	13.8	27.2	41.0	0.13	11.1	F
Total	II		108.0	61.4	169.4	1.19	25.3	C

Arterial Level of Service: WB Corkscrew Road

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Ben Hill Griffin Par	II	45	44.9	59.7	104.6	0.51	17.6	D
	II	45	13.8	5.0	18.8	0.13	24.2	C
I-75 NB Ramps	II	45	34.7	30.3	65.0	0.36	20.0	D
I-75 SB Ramps	II	45	12.3	15.7	28.0	0.11	14.5	E
Total	II		105.7	110.7	216.4	1.11	18.5	D

Arterial Level of Service: EB Corkscrew Road

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
I-75 SB Ramps	II	45	47.2	28.4	75.6	0.59	28.1	B
I-75 NB Ramps	II	45	12.3	5.4	17.7	0.11	22.9	C
Miromar Outlet	II	45	28.5	0.4	28.9	0.29	35.9	A
Ben Hill Griffin Par	II	45	21.7	27.2	48.9	0.20	14.7	E
Total	II		109.7	61.4	171.1	1.19	25.1	C

Arterial Level of Service: WB Corkscrew Road

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Ben Hill Griffin Par	II	45	44.9	59.7	104.6	0.51	17.6	D
Miromar Outlet	II	45	21.7	5.5	27.2	0.20	26.4	C
I-75 NB Ramps	II	45	28.5	30.3	58.8	0.29	17.6	D
I-75 SB Ramps	II	45	12.3	15.7	28.0	0.11	14.5	E
Total	II		107.4	111.2	218.6	1.11	18.3	D

Arterial Level of Service: EB Corkscrew Road

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
I-75 SB Ramps	II	45	47.2	28.4	75.6	0.59	28.1	B
I-75 NB Ramps	II	45	12.3	5.4	17.7	0.11	22.9	C
Ben Hill Griffin Par	II	45	42.9	27.3	70.2	0.49	25.0	C
Total	II		102.4	61.1	163.5	1.19	26.2	C

Arterial Level of Service: WB Corkscrew Road

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Ben Hill Griffin Par	II	45	44.9	59.7	104.6	0.51	17.6	D
I-75 NB Ramps	II	45	42.9	30.3	73.2	0.49	24.0	C
I-75 SB Ramps	II	45	12.3	15.7	28.0	0.11	14.5	E
Total	II		100.1	105.7	205.8	1.11	19.4	D

INTERSECTION ANALYSIS

Corkscrew Road Assessment, #06508
Lanes, Volumes, Timings

Corkscrew @ B110
Scenario 1: Existing Access
Timing Plan: PM Peak Hr.

	↗	→	↘	↖	←	↗	↖	↑	↗	↘	↓	↖
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↖	↗↗	↖	↖	↗↗	↖	↖	↑	↖	↖	↑	↖
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	450		500	500		500	500		500	500		0
Storage Lanes	2		1	1		1	1		1	1		1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3539	1583	1770	3539	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.526			0.595			0.211		
Satd. Flow (perm)	3433	3539	1583	980	3539	1583	1108	1863	1583	393	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			293			245			54			569
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		668			2693			3734			1266	
Travel Time (s)		10.1			40.8			56.6			19.2	
Volume (vph)	750	350	270	100	460	225	205	330	50	290	245	740
Peak Hour Factor	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)	815	380	293	109	500	245	223	359	54	315	266	804
Lane Group Flow (vph)	815	380	293	109	500	245	223	359	54	315	266	804
Turn Type	Prot		Perm	pm+pt		Perm	pm+pt		Perm	pm+pt		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4	8		8	2		2	6		6
Detector Phases	7	4	4	3	8	8	5	2	2	1	6	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	12.0	23.5	23.5	12.0	23.5	23.5	11.2	22.8	22.8	11.2	22.8	22.8
Total Split (s)	36.0	48.6	48.6	12.0	24.6	24.6	11.2	35.8	35.8	23.6	48.2	48.2
Total Split (%)	30.0%	40.5%	40.5%	10.0%	20.5%	20.5%	9.3%	29.8%	29.8%	19.7%	40.2%	40.2%
Maximum Green (s)	28.0	41.1	41.1	4.0	17.1	17.1	4.0	29.0	29.0	16.4	41.4	41.4
Yellow Time (s)	4.0	5.0	5.0	4.0	5.0	5.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	4.0	2.5	2.5	4.0	2.5	2.5	3.2	2.8	2.8	3.2	2.8	2.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes				Yes	Yes						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	Max	None	Max	Max
Walk Time (s)		5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0
Flash Dont Walk (s)		11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effct Green (s)	31.8	44.6	44.6	28.8	20.8	20.8	39.4	32.2	32.2	55.4	44.2	44.2
Actuated g/C Ratio	0.26	0.37	0.37	0.24	0.17	0.17	0.33	0.27	0.27	0.46	0.37	0.37
v/c Ratio	0.89	0.29	0.38	0.38	0.82	0.51	0.55	0.72	0.12	0.78	0.39	0.85
Control Delay	56.0	27.3	4.4	25.6	59.7	9.5	30.8	49.3	9.5	25.5	18.8	24.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.0	27.3	4.4	25.6	59.7	9.5	30.8	49.3	9.5	25.5	18.8	24.5
LOS	E	C	A	C	E	A	C	D	A	C	B	C

Corkscrew Road Assessment, #06508
Lanes, Volumes, Timings

Scenario 1: Existing Access
Timing Plan: PM Peak Hr.

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		38.5			40.9			39.5			23.6	
Approach LOS		D			D			D			C	
Queue Length 50th (ft)	313	107	0	46	198	0	104	254	0	114	139	428
Queue Length 95th (ft)	#421	147	56	81	#277	72	160	366	32	#258	212	#646
Internal Link Dist (ft)		588			2613			3654			1186	
Turn Bay Length (ft)	450		500	500		500	500		500	500		
Base Capacity (vph)	915	1315	772	287	613	477	403	500	464	406	686	942
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.89	0.29	0.38	0.38	0.82	0.51	0.55	0.72	0.12	0.78	0.39	0.85

Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 72 (60%), Referenced to phase 4:EBT and 8:WBTL, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.89
 Intersection Signal Delay: 34.4
 Intersection Capacity Utilization 80.9%
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Intersection LOS: C
 ICU Level of Service D

Splits and Phases: 22: Corkscrew Road & Ben Hill Griffin Parkway

 ø1	 ø2	 ø3	 ø4
 ø5	 ø6	 ø7	 ø8

Corkscrew Road Assessment, #06508

Scenario 1: Existing Access

Lanes, Volumes, Timings

Timing Plan: PM Peak Hr.

	↖	→	↘	↙	←	↖	↙	↑	↗	↘	↓	↙
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗	↗	↖	↗	↖
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	200		0	500		500	500		500
Storage Lanes	1		0	1		0	1		1	1		1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50		50	50	50	50	50	50
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.902			0.865				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1680	0	1770	1611	0	1770	3539	1583	1770	3539	1583
Flt Permitted	0.283			0.687			0.106			0.164		
Satd. Flow (perm)	527	1680	0	1280	1611	0	197	3539	1583	305	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		71			196				27			163
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		407			371			1266			1175	
Travel Time (s)		9.3			8.4			19.2			17.8	
Volume (vph)	150	35	65	130	20	180	65	865	25	130	1130	150
Peak Hour Factor	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)	163	38	71	141	22	196	71	940	27	141	1228	163
Lane Group Flow (vph)	163	109	0	141	218	0	71	940	27	141	1228	163
Turn Type	pm+pt			pm+pt			pm+pt		Perm	pm+pt		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Detector Phases	7	4		3	8		5	2	2	1	6	6
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	10.0	22.0		10.0	22.0		10.0	22.0	22.0	10.0	22.0	22.0
Total Split (s)	21.0	31.0	0.0	15.0	25.0	0.0	14.0	56.0	56.0	18.0	60.0	60.0
Total Split (%)	17.5%	25.8%	0.0%	12.5%	20.8%	0.0%	11.7%	46.7%	46.7%	15.0%	50.0%	50.0%
Maximum Green (s)	15.0	25.0		9.0	19.0		8.0	50.0	50.0	12.0	54.0	54.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None		None	None		None	C-Max	C-Max	None	C-Max	C-Max
Walk Time (s)		5.0			5.0			5.0	5.0		5.0	5.0
Flash Dont Walk (s)		11.0			11.0			11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)		0			0			0	0		0	0
Act Effct Green (s)	29.8	15.5		21.8	10.9		76.1	67.4	67.4	79.7	71.2	71.2
Actuated g/C Ratio	0.25	0.13		0.18	0.09		0.63	0.56	0.56	0.66	0.59	0.59
v/c Ratio	0.56	0.39		0.51	0.67		0.30	0.47	0.03	0.43	0.58	0.16
Control Delay	43.2	22.1		42.2	20.2		9.4	12.4	3.5	14.5	10.7	2.2
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.2	22.1		42.2	20.2		9.4	12.4	3.5	14.5	10.7	2.2
LOS	D	C		D	C		A	B	A	B	B	A

Corkscrew Road Assessment, #06508
Lanes, Volumes, Timings

Scenario 1: Existing Access
Timing Plan: PM Peak Hr.

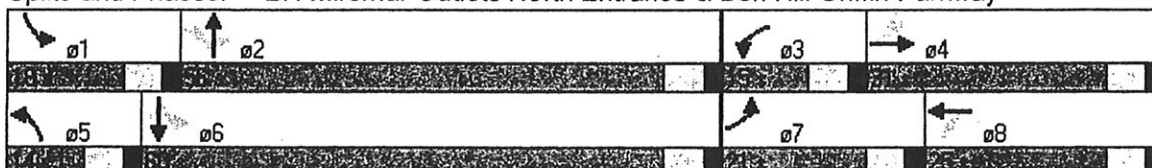
												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		34.8			28.8			12.0			10.1	
Approach LOS		C			C			B			B	
Queue Length 50th (ft)	105	27		89	16		10	137	1	24	120	4
Queue Length 95th (ft)	152	76		134	90		m16	m431	m2	m59	186	m18
Internal Link Dist (ft)		327			291			1186			1095	
Turn Bay Length (ft)	200			200			500		500	500		500
Base Capacity (vph)	310	433		278	444		258	1987	901	379	2101	1006
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.53	0.25		0.51	0.49		0.28	0.47	0.03	0.37	0.58	0.16

Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 66 (55%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 75
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.67
 Intersection Signal Delay: 14.9
 Intersection Capacity Utilization 68.7%
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.

Intersection LOS: B
 ICU Level of Service C

Splits and Phases: 27: Miromar Outlets North Entrance & Ben Hill Griffin Parkway



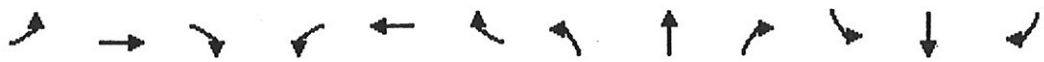
Corkscrew Road Assessment, #06508
Lanes, Volumes, Timings

Scenario 2: Right-In/Right-Out Only
Timing Plan: PM Peak Hr.

	↖	→	↘	↙	←	↖	↙	↑	↗	↘	↓	↙
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↖	↗↗	↘	↙	↗↗	↘	↙	↑	↗	↘	↑	↘
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	450		500	500		500	500		500	500		0
Storage Lanes	2		1	1		1	1		1	1		1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3539	1583	1770	3539	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.526			0.595			0.142		
Satd. Flow (perm)	3433	3539	1583	980	3539	1583	1108	1863	1583	265	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			293			192			54			658
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		668			2693			3734			1266	
Travel Time (s)		10.1			40.8			56.6			19.2	
Volume (vph)	1075	350	270	100	460	225	205	330	50	290	245	740
Peak Hour Factor	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)	1168	380	293	109	500	245	223	359	54	315	266	804
Lane Group Flow (vph)	1168	380	293	109	500	245	223	359	54	315	266	804
Turn Type	Prot		Perm	pm+pt		Perm	pm+pt		Perm	pm+pt		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4	8		8	2		2	6		6
Detector Phases	7	4	4	3	8	8	5	2	2	1	6	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	12.0	23.5	23.5	12.0	23.5	23.5	11.2	22.8	22.8	11.2	22.8	22.8
Total Split (s)	45.0	57.5	57.5	12.0	24.5	24.5	11.2	28.1	28.1	22.4	39.3	39.3
Total Split (%)	37.5%	47.9%	47.9%	10.0%	20.4%	20.4%	9.3%	23.4%	23.4%	18.7%	32.8%	32.8%
Maximum Green (s)	37.0	50.0	50.0	4.0	17.0	17.0	4.0	21.3	21.3	15.2	32.5	32.5
Yellow Time (s)	4.0	5.0	5.0	4.0	5.0	5.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	4.0	2.5	2.5	4.0	2.5	2.5	3.2	2.8	2.8	3.2	2.8	2.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes				Yes	Yes						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	Max	None	Max	Max
Walk Time (s)		5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0
Flash Dont Walk (s)		11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effct Green (s)	41.0	53.5	53.5	28.5	20.5	20.5	31.3	24.1	24.1	46.5	35.3	35.3
Actuated g/C Ratio	0.34	0.45	0.45	0.24	0.17	0.17	0.26	0.20	0.20	0.39	0.29	0.29
v/c Ratio	1.00	0.24	0.34	0.38	0.83	0.57	0.68	0.96	0.15	0.95	0.49	0.86
Control Delay	65.0	21.2	3.4	23.8	60.7	17.3	43.3	85.4	11.5	60.1	22.2	23.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	65.0	21.2	3.4	23.8	60.7	17.3	43.3	85.4	11.5	60.1	22.2	23.9
LOS	E	C	A	C	E	B	D	F	B	E	C	C

Corkscrew Road Assessment, #06508
Lanes, Volumes, Timings

Scenario 2: Right-In/Right-Out Only
Timing Plan: PM Peak Hr.

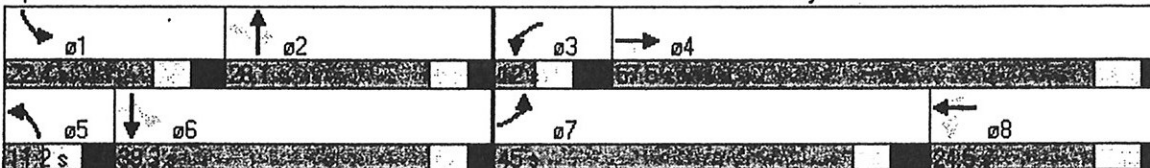
												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		46.1			43.5			64.4			31.8	
Approach LOS		D			D			E			C	
Queue Length 50th (ft)	462	94	0	39	198	36	120	278	0	168	142	419
Queue Length 95th (ft)	#615	128	49	69	#278	119	185	#467	35	#359	186	#680
Internal Link Dist (ft)		588			2613			3654			1186	
Turn Bay Length (ft)	450		500	500		500	500		500	500		
Base Capacity (vph)	1173	1578	868	285	605	430	329	374	361	333	548	930
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.00	0.24	0.34	0.38	0.83	0.57	0.68	0.96	0.15	0.95	0.49	0.86

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 71 (59%), Referenced to phase 4:EBT and 8:WBTL, Start of Green
Natural Cycle: 110
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.00
Intersection Signal Delay: 43.9
Intersection Capacity Utilization 90.2%
Analysis Period (min) 15
Intersection LOS: D
ICU Level of Service E

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 22: Corkscrew Road & Ben Hill Griffin Parkway



Corkscrew Road Assessment, #06508

Scenario 2: Right-In/Right-Out Only

Lanes, Volumes, Timings

Timing Plan: PM Peak Hr.

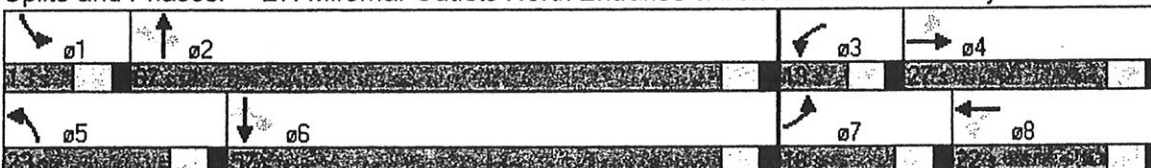
	↖	→	↘	↙	←	↖	↙	↑	↗	↘	↓	↙
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↑↑	↗	↖	↑↑	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	200		0	500		500	500		500
Storage Lanes	1		0	1		0	1		1	1		1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50		50	50	50	50	50	50
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.902			0.865				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1680	0	1770	1611	0	1770	3539	1583	1770	3539	1583
Flt Permitted	0.225			0.687			0.078			0.261		
Satd. Flow (perm)	419	1680	0	1280	1611	0	145	3539	1583	486	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		69			196				27			163
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		407			371			1266			1175	
Travel Time (s)		9.3			8.4			19.2			17.8	
Volume (vph)	150	35	65	130	20	180	195	865	25	130	1130	150
Peak Hour Factor	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)	163	38	71	141	22	196	212	940	27	141	1228	163
Lane Group Flow (vph)	163	109	0	141	218	0	212	940	27	141	1228	163
Turn Type	pm+pt			pm+pt			pm+pt		Perm	pm+pt		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Detector Phases	7	4		3	8		5	2	2	1	6	6
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	10.0	22.0		10.0	22.0		10.0	22.0	22.0	10.0	22.0	22.0
Total Split (s)	18.0	27.0	0.0	13.0	22.0	0.0	23.0	67.0	67.0	13.0	57.0	57.0
Total Split (%)	15.0%	22.5%	0.0%	10.8%	18.3%	0.0%	19.2%	55.8%	55.8%	10.8%	47.5%	47.5%
Maximum Green (s)	12.0	21.0		7.0	16.0		17.0	61.0	61.0	7.0	51.0	51.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None		None	None		None	C-Max	C-Max	None	C-Max	C-Max
Walk Time (s)		5.0			5.0			5.0	5.0		5.0	5.0
Flash Dont Walk (s)		11.0			11.0			11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)		0			0			0	0		0	0
Act Effct Green (s)	28.2	15.5		19.9	10.9		82.9	70.5	70.5	74.0	65.0	65.0
Actuated g/C Ratio	0.24	0.13		0.17	0.09		0.69	0.59	0.59	0.62	0.54	0.54
v/c Ratio	0.65	0.39		0.56	0.67		0.71	0.45	0.03	0.36	0.64	0.17
Control Delay	49.9	23.2		47.2	20.1		33.1	12.4	3.3	7.9	12.0	1.9
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.9	23.2		47.2	20.1		33.1	12.4	3.3	7.9	12.0	1.9
LOS	D	C		D	C		C	B	A	A	B	A

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		39.2			30.7			15.9			10.6	
Approach LOS		D			C			B			B	
Queue Length 50th (ft)	108	28		92	16		82	203	1	20	103	2
Queue Length 95th (ft)	158	78		139	89		m72	m340	m2	m43	268	m15
Internal Link Dist (ft)		327			291			1186			1095	
Turn Bay Length (ft)	200			200			500		500	500		500
Base Capacity (vph)	257	378		250	408		359	2080	941	400	1916	932
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.63	0.29		0.56	0.53		0.59	0.45	0.03	0.35	0.64	0.17

Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 69 (58%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 75
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.71
 Intersection Signal Delay: 16.9
 Intersection Capacity Utilization 75.9%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service D
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 27: Miromar Outlets North Entrance & Ben Hill Griffin Parkway



Corkscrew Road Assessment, #06508
Lanes, Volumes, TimingsScenario 3: Directional Signal
Timing Plan: PM Peak Hr.

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	450		500	500		500	500		500	500		0
Storage Lanes	2		1	1		1	1		1	1		1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3539	1583	1770	3539	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.526			0.595			0.211		
Satd. Flow (perm)	3433	3539	1583	980	3539	1583	1108	1863	1583	393	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			293			245			54			569
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		668			2693			3734			1266	
Travel Time (s)		10.1			40.8			56.6			19.2	
Volume (vph)	750	350	270	100	460	225	205	330	50	290	245	740
Peak Hour Factor	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)	815	380	293	109	500	245	223	359	54	315	266	804
Lane Group Flow (vph)	815	380	293	109	500	245	223	359	54	315	266	804
Turn Type	Prot		Perm	pm+pt		Perm	pm+pt		Perm	pm+pt		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4	8		8	2		2	6		6
Detector Phases	7	4	4	3	8	8	5	2	2	1	6	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	12.0	23.5	23.5	12.0	23.5	23.5	11.2	22.8	22.8	11.2	22.8	22.8
Total Split (s)	36.0	48.6	48.6	12.0	24.6	24.6	11.2	35.8	35.8	23.6	48.2	48.2
Total Split (%)	30.0%	40.5%	40.5%	10.0%	20.5%	20.5%	9.3%	29.8%	29.8%	19.7%	40.2%	40.2%
Maximum Green (s)	28.0	41.1	41.1	4.0	17.1	17.1	4.0	29.0	29.0	16.4	41.4	41.4
Yellow Time (s)	4.0	5.0	5.0	4.0	5.0	5.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	4.0	2.5	2.5	4.0	2.5	2.5	3.2	2.8	2.8	3.2	2.8	2.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes				Yes	Yes						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	Max	None	Max	Max
Walk Time (s)		5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0
Flash Dont Walk (s)		11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effct Green (s)	31.8	44.6	44.6	28.8	20.8	20.8	39.4	32.2	32.2	55.4	44.2	44.2
Actuated g/C Ratio	0.26	0.37	0.37	0.24	0.17	0.17	0.33	0.27	0.27	0.46	0.37	0.37
v/c Ratio	0.89	0.29	0.38	0.38	0.82	0.51	0.55	0.72	0.12	0.78	0.39	0.85
Control Delay	55.2	27.2	4.3	25.6	59.7	9.5	30.8	49.3	9.5	25.5	18.8	24.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.2	27.2	4.3	25.6	59.7	9.5	30.8	49.3	9.5	25.5	18.8	24.5
LOS	E	C	A	C	E	A	C	D	A	C	B	C

Corkscrew Road Assessment, #06508
Lanes, Volumes, Timings

Scenario 3: Directional Signal
Timing Plan: PM Peak Hr.

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		38.0			40.9			39.5			23.6	
Approach LOS		D			D			D			C	
Queue Length 50th (ft)	313	107	0	46	198	0	104	254	0	114	139	428
Queue Length 95th (ft)	#421	147	56	81	#277	72	160	366	32	#258	212	#646
Internal Link Dist (ft)		588			2613			3654			1186	
Turn Bay Length (ft)	450		500	500		500	500		500	500		
Base Capacity (vph)	915	1315	772	287	613	477	403	500	464	406	686	942
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.89	0.29	0.38	0.38	0.82	0.51	0.55	0.72	0.12	0.78	0.39	0.85

Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 72 (60%), Referenced to phase 4:EBT and 8:WBTL, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.89
 Intersection Signal Delay: 34.2
 Intersection Capacity Utilization 80.9%
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Intersection LOS: C
 ICU Level of Service D

Splits and Phases: 22: Corkscrew Road & Ben Hill Griffin Parkway

 ø1	 ø2	 ø3	 ø4
 ø5	 ø6	 ø7	 ø8

Corkscrew Road Assessment, #06508
Lanes, Volumes, Timings

Scenario 3: Directional Signal
Timing Plan: PM Peak Hr.

	↖	→	↘	↙	←	↖	↙	↑	↗	↘	↓	↙
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗	↗	↖	↗	↖
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	200		0	500		500	500		500
Storage Lanes	1		0	1		0	1		1	1		1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50		50	50	50	50	50	50
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.902			0.865				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1680	0	1770	1611	0	1770	3539	1583	1770	3539	1583
Flt Permitted	0.283			0.687			0.106			0.164		
Satd. Flow (perm)	527	1680	0	1280	1611	0	197	3539	1583	305	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		71			196				27			163
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		407			371			1266			1175	
Travel Time (s)		9.3			8.4			19.2			17.8	
Volume (vph)	150	35	65	130	20	180	65	865	25	130	1130	150
Peak Hour Factor	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)	163	38	71	141	22	196	71	940	27	141	1228	163
Lane Group Flow (vph)	163	109	0	141	218	0	71	940	27	141	1228	163
Turn Type	pm+pt			pm+pt			pm+pt		Perm	pm+pt		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Detector Phases	7	4		3	8		5	2	2	1	6	6
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	10.0	22.0		10.0	22.0		10.0	22.0	22.0	10.0	22.0	22.0
Total Split (s)	21.0	31.0	0.0	15.0	25.0	0.0	14.0	56.0	56.0	18.0	60.0	60.0
Total Split (%)	17.5%	25.8%	0.0%	12.5%	20.8%	0.0%	11.7%	46.7%	46.7%	15.0%	50.0%	50.0%
Maximum Green (s)	15.0	25.0		9.0	19.0		8.0	50.0	50.0	12.0	54.0	54.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None		None	None		None	C-Max	C-Max	None	C-Max	C-Max
Walk Time (s)		5.0			5.0			5.0	5.0		5.0	5.0
Flash Dont Walk (s)		11.0			11.0			11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)		0			0			0	0		0	0
Act Effct Green (s)	29.8	15.5		21.8	10.9		76.1	67.4	67.4	79.7	71.2	71.2
Actuated g/C Ratio	0.25	0.13		0.18	0.09		0.63	0.56	0.56	0.66	0.59	0.59
v/c Ratio	0.56	0.39		0.51	0.67		0.30	0.47	0.03	0.43	0.58	0.16
Control Delay	43.2	22.1		42.2	20.2		9.4	12.4	3.5	14.5	10.7	2.2
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.2	22.1		42.2	20.2		9.4	12.4	3.5	14.5	10.7	2.2
LOS	D	C		D	C		A	B	A	B	B	A

Corkscrew Road Assessment, #06508
Lanes, Volumes, Timings

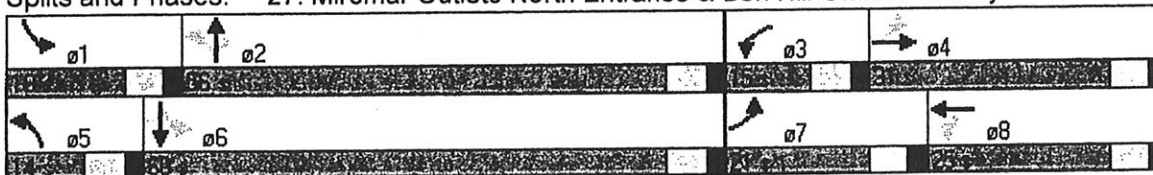
Scenario 3: Directional Signal
Timing Plan: PM Peak Hr.

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		34.8			28.8			12.0			10.1	
Approach LOS		C			C			B			B	
Queue Length 50th (ft)	105	27		89	16		10	137	1	24	120	4
Queue Length 95th (ft)	152	76		134	90		m16	m431	m2	m59	186	m18
Internal Link Dist (ft)		327			291			1186			1095	
Turn Bay Length (ft)	200			200			500		500	500		500
Base Capacity (vph)	310	433		278	444		258	1987	901	379	2101	1006
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.53	0.25		0.51	0.49		0.28	0.47	0.03	0.37	0.58	0.16

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 66 (55%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.67
Intersection Signal Delay: 14.9
Intersection Capacity Utilization 68.7%
Analysis Period (min) 15
Intersection LOS: B
ICU Level of Service C
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 27: Miromar Outlets North Entrance & Ben Hill Griffin Parkway



Corkscrew Road Assessment, #06508
Lanes, Volumes, Timings

Scenario 4: Directional Signal, Dual EBL
Timing Plan: PM Peak Hr.

	↖	→	↘	↙	←	↖	↙	↑	↗	↘	↓	↙
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↖	↑↑	↗	↖	↑↑	↗	↖	↑	↗	↖	↑	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	450		500	500		500	500		500	500		0
Storage Lanes	2		1	1		1	1		1	1		1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3539	1583	1770	3539	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.526			0.595			0.211		
Satd. Flow (perm)	3433	3539	1583	980	3539	1583	1108	1863	1583	393	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			293			245			54			569
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		1053			2693			3734			1266	
Travel Time (s)		16.0			40.8			56.6			19.2	
Volume (vph)	750	350	270	100	460	225	205	330	50	290	245	740
Peak Hour Factor	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)	815	380	293	109	500	245	223	359	54	315	266	804
Lane Group Flow (vph)	815	380	293	109	500	245	223	359	54	315	266	804
Turn Type	Prot		Perm	pm+pt		Perm	pm+pt		Perm	pm+pt		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4	8		8	2		2	6		6
Detector Phases	7	4	4	3	8	8	5	2	2	1	6	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	12.0	23.5	23.5	12.0	23.5	23.5	11.2	22.8	22.8	11.2	22.8	22.8
Total Split (s)	36.0	48.6	48.6	12.0	24.6	24.6	11.2	35.8	35.8	23.6	48.2	48.2
Total Split (%)	30.0%	40.5%	40.5%	10.0%	20.5%	20.5%	9.3%	29.8%	29.8%	19.7%	40.2%	40.2%
Maximum Green (s)	28.0	41.1	41.1	4.0	17.1	17.1	4.0	29.0	29.0	16.4	41.4	41.4
Yellow Time (s)	4.0	5.0	5.0	4.0	5.0	5.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	4.0	2.5	2.5	4.0	2.5	2.5	3.2	2.8	2.8	3.2	2.8	2.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes				Yes	Yes						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	Max	None	Max	Max
Walk Time (s)		5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0
Flash Dont Walk (s)		11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effct Green (s)	31.8	44.6	44.6	28.8	20.8	20.8	39.3	32.1	32.1	55.4	44.2	44.2
Actuated g/C Ratio	0.26	0.37	0.37	0.24	0.17	0.17	0.33	0.27	0.27	0.46	0.37	0.37
v/c Ratio	0.89	0.29	0.38	0.38	0.82	0.51	0.55	0.72	0.12	0.78	0.39	0.85
Control Delay	55.2	27.2	4.3	25.6	59.7	9.5	30.8	49.4	9.5	25.6	19.4	24.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.2	27.2	4.3	25.6	59.7	9.5	30.8	49.4	9.5	25.6	19.4	24.8
LOS	E	C	A	C	E	A	C	D	A	C	B	C

Corkscrew Road Assessment, #06508
Lanes, Volumes, Timings

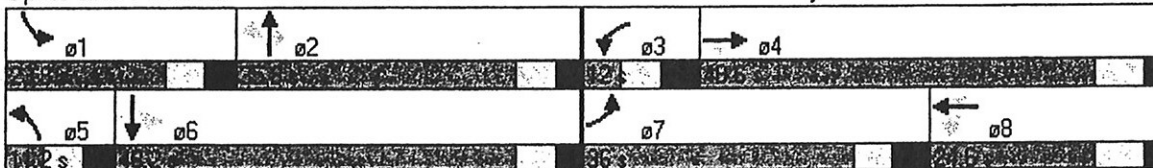
Scenario 4: Directional Signal, Dual EBL
Timing Plan: PM Peak Hr.

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		38.0			40.9			39.5			24.0	
Approach LOS		D			D			D			C	
Queue Length 50th (ft)	313	107	0	46	198	0	104	254	0	120	142	425
Queue Length 95th (ft)	#421	147	56	81	#277	72	160	366	32	#258	218	#645
Internal Link Dist (ft)		973			2613			3654			1186	
Turn Bay Length (ft)	450		500	500		500	500		500	500		
Base Capacity (vph)	915	1315	772	287	613	477	403	499	463	406	686	942
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.89	0.29	0.38	0.38	0.82	0.51	0.55	0.72	0.12	0.78	0.39	0.85

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 73 (61%), Referenced to phase 4:EBT and 8:WBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.89
Intersection Signal Delay: 34.3
Intersection Capacity Utilization 80.9%
Analysis Period (min) 15
Intersection LOS: C
ICU Level of Service D
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 22: Corkscrew Road & Ben Hill Griffin Parkway



Corkscrew Road Assessment, #06508

Scenario 4: Directional Signal, Dual EBL

Lanes, Volumes, Timings

Timing Plan: PM Peak Hr.

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	200		0	500		500	500		500
Storage Lanes	1		0	1		0	1		1	1		1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50		50	50	50	50	50	50
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.902			0.865				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1680	0	1770	1611	0	1770	3539	1583	1770	3539	1583
Flt Permitted	0.283			0.687			0.106			0.164		
Satd. Flow (perm)	527	1680	0	1280	1611	0	197	3539	1583	305	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		71			196				27			163
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		407			371			1266			1175	
Travel Time (s)		9.3			8.4			19.2			17.8	
Volume (vph)	150	35	65	130	20	180	65	865	25	130	1130	150
Peak Hour Factor	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)	163	38	71	141	22	196	71	940	27	141	1228	163
Lane Group Flow (vph)	163	109	0	141	218	0	71	940	27	141	1228	163
Turn Type	pm+pt			pm+pt			pm+pt		Perm	pm+pt		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Detector Phases	7	4		3	8		5	2	2	1	6	6
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	10.0	22.0		10.0	22.0		10.0	22.0	22.0	10.0	22.0	22.0
Total Split (s)	21.0	31.0	0.0	15.0	25.0	0.0	14.0	56.0	56.0	18.0	60.0	60.0
Total Split (%)	17.5%	25.8%	0.0%	12.5%	20.8%	0.0%	11.7%	46.7%	46.7%	15.0%	50.0%	50.0%
Maximum Green (s)	15.0	25.0		9.0	19.0		8.0	50.0	50.0	12.0	54.0	54.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None		None	None		None	C-Max	C-Max	None	C-Max	C-Max
Walk Time (s)		5.0			5.0			5.0	5.0		5.0	5.0
Flash Dont Walk (s)		11.0			11.0			11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)		0			0			0	0		0	0
Act Effct Green (s)	29.8	15.5		21.8	10.9		76.0	67.4	67.4	79.8	71.3	71.3
Actuated g/C Ratio	0.25	0.13		0.18	0.09		0.63	0.56	0.56	0.66	0.59	0.59
v/c Ratio	0.56	0.39		0.51	0.67		0.30	0.47	0.03	0.43	0.58	0.16
Control Delay	43.2	22.1		42.2	20.2		9.0	11.9	3.4	14.5	10.7	2.2
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.2	22.1		42.2	20.2		9.0	11.9	3.4	14.5	10.7	2.2
LOS	D	C		D	C		A	B	A	B	B	A

Corkscrew Road Assessment, #06508
Lanes, Volumes, Timings

Scenario 4: Directional Signal, Dual EBL
Timing Plan: PM Peak Hr.

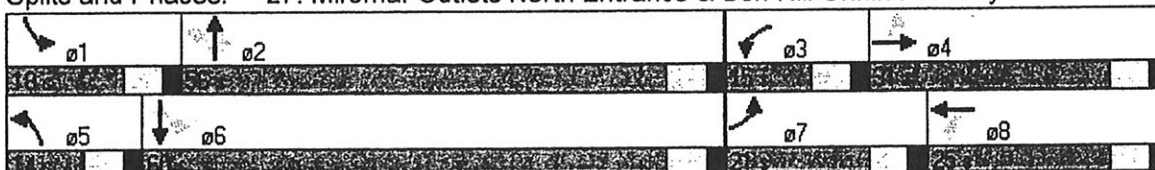
												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		34.8			28.8			11.4			10.1	
Approach LOS		C			C			B			B	
Queue Length 50th (ft)	105	27		89	16		10	137	1	24	120	4
Queue Length 95th (ft)	152	76		134	90		m15	m431	m2	m59	186	m18
Internal Link Dist (ft)		327			291			1186			1095	
Turn Bay Length (ft)	200			200			500		500	500		500
Base Capacity (vph)	310	433		278	444		258	1987	901	379	2102	1006
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.53	0.25		0.51	0.49		0.28	0.47	0.03	0.37	0.58	0.16

Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 66 (55%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 75
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.67
 Intersection Signal Delay: 14.8
 Intersection Capacity Utilization 68.7%
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.

Intersection LOS: B
 ICU Level of Service C

Splits and Phases: 27: Miromar Outlets North Entrance & Ben Hill Griffin Parkway



Corkscrew B B11 G

Corkscrew Road Assessment, #06508

Scenario 5: No SB RTOR at BHG

Lanes, Volumes, Timings

Timing Plan: PM Peak Hr.

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	450		500	500		500	500		500	500		0
Storage Lanes	2		1	1		1	1		1	1		1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3539	1583	1770	3539	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.526			0.595			0.211		
Satd. Flow (perm)	3433	3539	1583	980	3539	1583	1108	1863	1583	393	1863	1583
Right Turn on Red			Yes			Yes			Yes			No
Satd. Flow (RTOR)			293			245			54			
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		668			2693			3734			1266	
Travel Time (s)		10.1			40.8			56.6			19.2	
Volume (vph)	750	350	270	100	460	225	205	330	50	290	245	740
Peak Hour Factor	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)	815	380	293	109	500	245	223	359	54	315	266	804
Lane Group Flow (vph)	815	380	293	109	500	245	223	359	54	315	266	804
Turn Type	Prot		Perm	pm+pt		Perm	pm+pt		Perm	pm+pt		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4	8		8	2		2	6		6
Detector Phases	7	4	4	3	8	8	5	2	2	1	6	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	12.0	23.5	23.5	12.0	23.5	23.5	11.2	22.8	22.8	11.2	22.8	22.8
Total Split (s)	36.0	48.6	48.6	12.0	24.6	24.6	11.2	35.8	35.8	23.6	48.2	48.2
Total Split (%)	30.0%	40.5%	40.5%	10.0%	20.5%	20.5%	9.3%	29.8%	29.8%	19.7%	40.2%	40.2%
Maximum Green (s)	28.0	41.1	41.1	4.0	17.1	17.1	4.0	29.0	29.0	16.4	41.4	41.4
Yellow Time (s)	4.0	5.0	5.0	4.0	5.0	5.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	4.0	2.5	2.5	4.0	2.5	2.5	3.2	2.8	2.8	3.2	2.8	2.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes				Yes	Yes						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	Max	None	Max	Max
Walk Time (s)		5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0
Flash Dont Walk (s)		11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effct Green (s)	31.8	44.6	44.6	28.8	20.8	20.8	39.4	32.2	32.2	55.4	44.2	44.2
Actuated g/C Ratio	0.26	0.37	0.37	0.24	0.17	0.17	0.33	0.27	0.27	0.46	0.37	0.37
v/c Ratio	0.89	0.29	0.38	0.38	0.82	0.51	0.55	0.72	0.12	0.78	0.39	1.38
Control Delay	56.0	27.3	4.4	25.6	59.7	9.5	30.8	49.3	9.5	25.6	18.3	206.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.0	27.3	4.4	25.6	59.7	9.5	30.8	49.3	9.5	25.6	18.3	206.0
LOS	E	C	A	C	E	A	C	D	A	C	B	F

SK

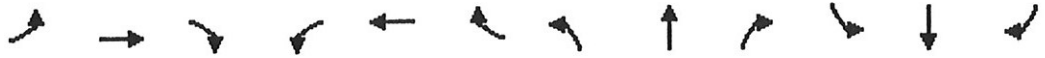
David Plummer & Associates

1/28/2006

Page 1

Corkscrew Road Assessment, #06508
Lanes, Volumes, Timings

Scenario 5: No SB RTOR at BHG
Timing Plan: PM Peak Hr.

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		38.5			40.9			39.4			128.9	
Approach LOS		D			D			D			F	
Queue Length 50th (ft)	313	107	0	46	198	0	104	254	0	108	136	~839
Queue Length 95th (ft)	#421	147	56	81	#277	72	160	366	32	#258	210	#1081
Internal Link Dist (ft)		588			2613			3654			1186	
Turn Bay Length (ft)	450		500	500		500	500		500	500		
Base Capacity (vph)	915	1315	772	287	613	477	403	500	464	406	686	583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.89	0.29	0.38	0.38	0.82	0.51	0.55	0.72	0.12	0.78	0.39	1.38

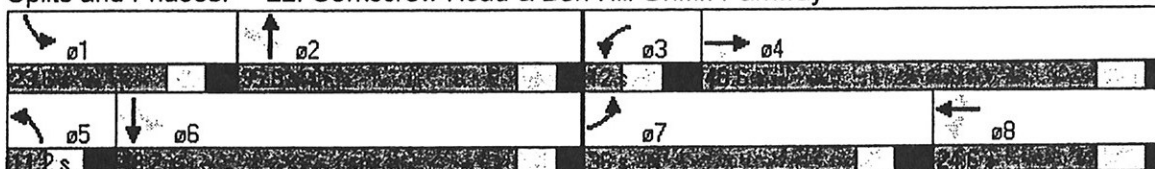
Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 71 (59%), Referenced to phase 4:EBT and 8:WBTL, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.38
Intersection Signal Delay: 67.8
Intersection Capacity Utilization 80.9%
Analysis Period (min) 15
Intersection LOS: E
ICU Level of Service D

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 22: Corkscrew Road & Ben Hill Griffin Parkway



Corkscrew Road Assessment, #06508
Lanes, Volumes, Timings

Scenario 5: No SB RTOR at BHG
Timing Plan: PM Peak Hr.

	↖	→	↘	↙	←	↖	↙	↑	↗	↘	↓	↙
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↑↑	↗	↖	↑↑	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	200		0	500		500	500		500
Storage Lanes	1		0	1		0	1		1	1		1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50		50	50	50	50	50	50
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.902			0.865				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1680	0	1770	1611	0	1770	3539	1583	1770	3539	1583
Flt Permitted	0.283			0.687			0.106			0.164		
Satd. Flow (perm)	527	1680	0	1280	1611	0	197	3539	1583	305	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		71			196				27			163
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		407			371			1266			1175	
Travel Time (s)		9.3			8.4			19.2			17.8	
Volume (vph)	150	35	65	130	20	180	65	865	25	130	1130	150
Peak Hour Factor	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)	163	38	71	141	22	196	71	940	27	141	1228	163
Lane Group Flow (vph)	163	109	0	141	218	0	71	940	27	141	1228	163
Turn Type	pm+pt			pm+pt			pm+pt		Perm	pm+pt		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Detector Phases	7	4		3	8		5	2	2	1	6	6
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	10.0	22.0		10.0	22.0		10.0	22.0	22.0	10.0	22.0	22.0
Total Split (s)	21.0	31.0	0.0	15.0	25.0	0.0	14.0	56.0	56.0	18.0	60.0	60.0
Total Split (%)	17.5%	25.8%	0.0%	12.5%	20.8%	0.0%	11.7%	46.7%	46.7%	15.0%	50.0%	50.0%
Maximum Green (s)	15.0	25.0		9.0	19.0		8.0	50.0	50.0	12.0	54.0	54.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None		None	None		None	C-Max	C-Max	None	C-Max	C-Max
Walk Time (s)		5.0			5.0			5.0	5.0		5.0	5.0
Flash Dont Walk (s)		11.0			11.0			11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)		0			0			0	0		0	0
Act Effct Green (s)	29.8	15.5		21.8	10.9		76.1	67.4	67.4	79.7	71.2	71.2
Actuated g/C Ratio	0.25	0.13		0.18	0.09		0.63	0.56	0.56	0.66	0.59	0.59
v/c Ratio	0.56	0.39		0.51	0.67		0.30	0.47	0.03	0.43	0.58	0.16
Control Delay	43.2	22.1		42.2	20.2		9.9	13.0	3.7	14.5	10.7	2.2
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.2	22.1		42.2	20.2		9.9	13.0	3.7	14.5	10.7	2.2
LOS	D	C		D	C		A	B	A	B	B	A

Corkscrew Road Assessment, #06508
Lanes, Volumes, Timings

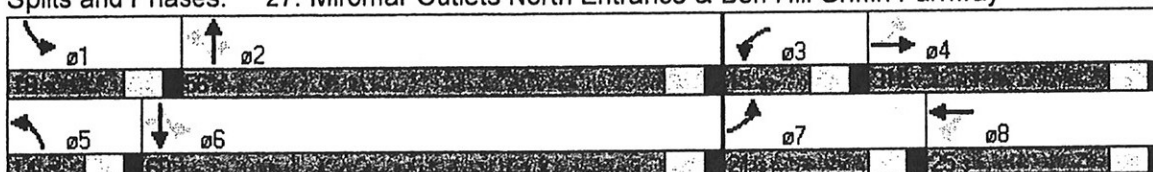
Scenario 5: No SB RTOR at BHG
Timing Plan: PM Peak Hr.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		34.8			28.8			12.6			10.2	
Approach LOS		C			C			B			B	
Queue Length 50th (ft)	105	27		89	16		11	137	1	24	120	4
Queue Length 95th (ft)	152	76		134	90		m17	m431	m2	m59	186	m18
Internal Link Dist (ft)		327			291			1186			1095	
Turn Bay Length (ft)	200			200			500		500	500		500
Base Capacity (vph)	310	433		278	444		258	1987	901	379	2100	1006
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.53	0.25		0.51	0.49		0.28	0.47	0.03	0.37	0.58	0.16

Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 66 (55%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 75
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.67
 Intersection Signal Delay: 15.1
 Intersection Capacity Utilization 68.7%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service C
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 27: Miromar Outlets North Entrance & Ben Hill Griffin Parkway



APPENDIX 3

MIROMAR OUTLETS CORKSCREW ROAD ACCESS EVALUATION
DATED SEPTEMBER 7, 2007

MIROMAR OUTLETS

CORKSCREW ROAD ACCESS EVALUATION

Project #07569

September 7, 2007

**Prepared by:
DAVID PLUMMER & ASSOCIATES, INC.
1531 Hendry Street
Fort Myers, Florida 33901**



MIROMAR OUTLETS

CORKSCREW ROAD ACCESS EVALUATION

Executive Summary

This traffic study has been prepared to assess the operations of the Corkscrew Road corridor, from just west of I-75 to just east of Ben Hill Griffin Parkway, with improvements proposed by Miromar Outlets. This corridor is comprised of the I-75 ramps, Miromar Outlets directional median opening, and the intersection of Ben Hill Griffin Parkway.

The proposed improvements will relocate the existing Miromar Outlets directional median to the west, provide dual eastbound left-turn lanes, and signalize the eastbound left-turn movement. The existing entrance will be limited to inbound right-turn movement only. In addition, the proposed improvements will allow extending the eastbound dual left-turn lanes at the Corkscrew Road/Ben Hill Griffin Parkway intersection.

Based on the detailed Synchro/SimTraffic analysis the proposed improvements resulted in the following.

- Reduced total delay and delay per vehicle at the Miromar directional median opening and the Ben Hill Griffin Parkway intersections.
- Reduced total number of stops and stops per vehicle on Corkscrew Road.
- Reduced eastbound left-turn queues at the Miromar directional median opening and the Ben Hill Griffin Parkway intersections.
- Improved performance index on Corkscrew Road.
- Improved traffic flow on Corkscrew Road.

Background

The Miromar Outlets is an existing factory outlets retail center in South Lee County. The Miromar Outlets is located in the northwest quadrant of the intersection of Corkscrew Road and Ben Hill Griffin Parkway, on the north side of Corkscrew Road between I-75 and Ben Hill Griffin Parkway, Exhibit 1.

Miromar Outlets is approved for a total of 700,000 square feet of commercial space. The existing Miromar Outlets consists of approximately 570,000 square feet with approximately 90,000 square feet of proposed development (currently under review). The Miromar Outlets is anticipated to be built out by the year 2010.

Access to the Miromar Outlets includes a full median opening (Miromar North Entrance) and a directional median opening (Miromar South Entrance) onto Ben Hill Griffin Parkway and a directional median opening onto Corkscrew Road. In addition, there is an internal connection to the Germain Arena, which is to the north of Miromar Outlets.

The directional median opening onto Corkscrew Road is located approximately 1,600 feet east of the I-75 east ramps and 660 feet west of the Ben Hill Griffin Parkway intersection. Traffic operational problems have been experienced on Corkscrew Road between I-75 and Ben Hill Griffin Parkway. Improvements to the I-75 ramps on Corkscrew Road, combined with some signal timing adjustments by the Lee County DOT, have addressed some of those problems.

Miromar has been pro-actively working with the Lee County DOT to address the operational issues on Corkscrew Road from I-75 to Ben Hill Griffin Parkway. As an interim improvement, Miromar has agreed, as part of the most recent Development Order approval, to lengthen the eastbound left-turn lane at the Miromar Outlets directional median opening on Corkscrew Road by approximately 250 feet and provide two inbound lanes at the entrance.

In addition, Miromar met with the Lee County DOT to discuss a long term alternative for improving the traffic operations on Corkscrew Road, specifically from west of I-75 to east of Ben Hill Griffin Parkway. The proposed improvements would relocate the existing directional median to the west, approximately 350 feet, provide dual eastbound left-turn lanes, and signalize the eastbound left-turn movement. The existing entrance would be limited to inbound right-turn movement only.

Based on the meeting with the Lee County DOT, this traffic study has been prepared to support the proposed improvements at the Miromar Outlets directional median opening and assess the operations of Corkscrew Road with the proposed improvements.

Roadway Network

The existing roadway network in the vicinity of the Miromar Outlets is portrayed in Exhibit 1. The major roadways in the vicinity of the Miromar Outlets include I-75, Corkscrew Road and Ben Hill Griffin Parkway.

Corkscrew Road is four-lane divided roadway between US 41 and Ben Hill Griffin Parkway. It is a two-lane undivided roadway east of Ben Hill Griffin Parkway. Traffic operational problems have been experienced on Corkscrew Road, between I-75 and Ben Hill Griffin Parkway, and, in particular, at the I-75 ramps, the Miromar Outlets Entrance, and Ben Hill Griffin Parkway.

As part of this traffic study, the segment of Corkscrew Road from just west of I-75 to just east of Ben Hill Griffin Parkway is analyzed. This corridor is comprised of the I-75 ramps, Miromar Outlets directional median opening, and the intersection of Ben Hill Griffin Parkway. In addition, there is a right-in/right-out driveway on the south side of Corkscrew Road, between the I-75 east ramps and the Miromar Outlets directional median opening, into the Miromar International Design Center.

Existing Traffic Volumes

The Lee County DOT provided the Synchro network files, including the existing peak hour, peak season signal timing plans. In addition, the Lee County DOT also provided the latest intersection turning movement counts at the following intersections, Appendix A.

- I-75 SB Ramps/Corkscrew Road
- I-75 NB Ramps/Corkscrew Road
- Corkscrew Road/Ben Hill Griffin Parkway

The driveway volumes at the Miromar directional median opening were derived from the most recent Development Order (DO) traffic impact statement. The resultant turning movement volumes at the study area intersections are presented in Exhibit 2.

Existing Access

Miromar Outlets has a full median opening (Miromar North Entrance) and a directional median opening (Miromar South Entrance) onto Ben Hill Griffin Parkway and a directional median opening onto Corkscrew Road. In addition, there is an internal connection to the Germain Arena, which is to the north of Miromar Outlets.

The directional median opening onto Corkscrew Road is located approximately 1,600 feet east of the I-75 east ramps and 660 feet west of the Ben Hill Griffin Parkway intersection, Exhibit 3.

Proposed Improvements

Miromar has been pro-actively working with the Lee County DOT to address and alleviate the operational issues on Corkscrew Road from I-75 to Ben Hill Griffin Parkway. As an interim improvement, Miromar agreed, as part of the most recent Development Order approval, to lengthen the eastbound left-turn lane at the Miromar Outlets directional median opening on Corkscrew Road by approximately 250 feet and provide two inbound lanes.

In addition, Lee County DOT has implemented operational improvements at the intersection of Corkscrew Road and Ben Hill Griffin Parkway to restricted southbound right turn on red movements.

The proposed improvements now being evaluated include the following.

- Relocate the existing directional median approximately 350 feet to the west.
- Provide dual eastbound left-turn lanes.
- Signalize the eastbound dual left-turn movement.
- Convert the existing entrance to inbound right-turn movement only.

The proposed improvements are depicted on Exhibit 4.

The proposed improvements will not only address the traffic operations at the Corkscrew Road/Miromar Outlets directional median opening by providing a second eastbound left-turn lane under signal control, but will also provide additional stacking for the eastbound dual left-turn lanes at the Corkscrew Road/Ben Hill Griffin Parkway intersection. These improvements should improve traffic flow on Corkscrew Road.

Synchro/SimTraffic Analysis

An arterial analysis was performed for Corkscrew Road using Synchro 6, without and with the proposed improvements. Synchro 6 is a traffic simulation and modeling software that replicates the signalized intersection capacity analysis as specified in the 2000 Highway Capacity Manual. Also, it has the ability to assess the arterial performance with respect to the traffic signal coordination and signal timing optimization.

For each scenario, the intersection offsets were optimized using Synchro 6, in order to provide the best possible arterial flow on Corkscrew Road. Various Measures of Effectiveness (MOE) were evaluated on an arterial level as well as on a network level. The more relevant arterial and network wide MOE's included: performance index (PI); delay per vehicle; total delay hours; arterial level of service; and arterial speeds.

The various MOE's and arterial analysis results are summarized in Exhibit 5 and Exhibit 6 for without improvements and with improvements, respectively. A comparison of the MOE's is summarized below.

Comparison of Measures of Effectiveness ⁽¹⁾

<u>Measure of Effectiveness</u>	<u>Without Improvement</u>	<u>With Improvement</u>	<u>Change</u>
<u>Corkscrew Road</u>			
Total Delay/Vehicle (Sce/Veh)	13	13	No Change
Total Delay (Hours)	90	91	+1.01%
Stops/Vehicle	0.32	0.28	-12.50%
Stops	7910	6930	-12.40%
Performance Index	112	110.6	-1.25%
Eastbound Average Speed (MPH)	29.2	28.7	-1.71%
Eastbound Arterial LOS	C	C	No Change
Westbound Average Speed (MPH)	28.8	27.4	-4.86%
Westbound Arterial LOS	C	C	No Change

Network

Total Delay/Vehicle (Sce/Veh)	17	16	-5.88%
Total Delay (Hours)	167	162	-3.00%
Stops/Vehicle	0.36	0.33	-8.33%
Stops	12,992	11,911	-8.32%
Average Speed (MPH)	24	24	No Change
Travel Time (Hours)	328	322	-1.83%
Performance Index	203.1	195.5	-3.74%

Footnotes:

(1) Based on the Synchro 6 arterial level of service and measures of effectiveness reports. Please see Appendix B.

As shown above, the findings are as follows.

1. Total delay per vehicle on Corkscrew Road was 13 seconds for both scenarios, (without and with the improvements). On a network level, the improvements reduced total delay per vehicle from 17 seconds to 16 seconds.
2. While the total delay on Corkscrew Road increased slightly from 90 hours to 91 hours, the total delay on the network was reduced from 167 hours to 162 hours.
3. Stops per vehicle and total number of stops decreased approximately 12% on Corkscrew Road, as well as on the network.
4. The proposed improvements resulted in a better Performance Index (PI), indicating the combined effect of delay, stops and queuing, on Corkscrew Road as well as on the network level.
5. Based on arterial speeds, Corkscrew Road continues to operate at LOS "C" with the proposed improvements.
6. The proposed improvements maintain the overall network average speed and reduce the network travel time from 328 hours to 322 hours.

Synchro 6 MOE reports and arterial levels of service reports are provided as part of Appendix B.

In addition to Synchro arterial analysis, SimTraffic was used to observe the peak hour traffic simulation. The SimTraffic peak hour traffic simulation demonstrated significant operational improvements at the Miromar directional opening and the Ben Hill Griffin Parkway intersections as a result of the proposed improvements.

The various MOE's and SimTraffic analysis results are summarized in Exhibit 7 and Exhibit 8 for without improvements and with improvements, respectively. A comparison of the intersection operations without and with the proposed improvements is summarized below.

Intersection Measures of Effectiveness ⁽¹⁾

<u>Measure of Effectiveness</u>	<u>Without Improvement</u>	<u>With Improvement</u>	<u>Change</u>
Corkscrew Road/Miromar Directional Median Opening:			
Total Delay/Vehicle (Sce/Veh)	38.6	14.4	-62.70%
Total Delay (Hours)	37.9	14.0	-63.06%
Total Stops	1,224	916	-25.16%
Average Speed (MPH)	15	24	+60.0%
Eastbound Left 95% Queue (Feet)	849	176 ⁽²⁾	-58.54%
Eastbound Left Queuing Penalty (Veh)	23	0	-23
Corkscrew Road/Ben Hill Griffin Parkway:			
Total Delay/Vehicle (Sce/Veh)	51.9	46.3	-10.79%
Total Delay (Hours)	48.2	42.0	-12.86%
Total Stops	2535	2349	-7.70%
Average Speed (MPH)	6	8	+33.33%
Eastbound Left 95% Queue (Feet)	593 ⁽²⁾	490 ⁽²⁾	-17.30%
Eastbound Left Queuing Penalty (Veh)	15	0	-15

Footnotes:

- (1) Based on the SimTraffic performance reports and queuing and blocking reports.
 (2) Average queue length for dual left turn lanes.

As shown above, the proposed improvements demonstrated the following.

1. The total delay per vehicle was reduced approximately 63% at the Miromar directional median opening and approximately 11% at the Ben Hill Griffin Parkway intersection.
2. Total delay hours were decreased approximately 63% at the Miromar directional median opening and approximately 13% at the Ben Hill Griffin Parkway intersection.
3. The total number of stops was decreased approximately 25% and 8% at the Miromar directional median opening and the Ben Hill Griffin Parkway intersection, respectively.
4. Average speed increased by approximately 60% at the Miromar directional median opening and approximately 33% at the Ben Hill Griffin Parkway intersection.
5. The eastbound left-turn queues at the Miromar directional opening were reduced by approximately 59% with no queuing penalty.
6. The eastbound left-turn queues at the Ben Hill Griffin Parkway were reduced by approximately 17% with no queuing penalty.

SimTraffic performance reports and queuing and blocking reports are provided as part of Appendix C. Synchro network files and the corresponding SimTraffic simulation history files are provided on the attached Compact Disc (CD).

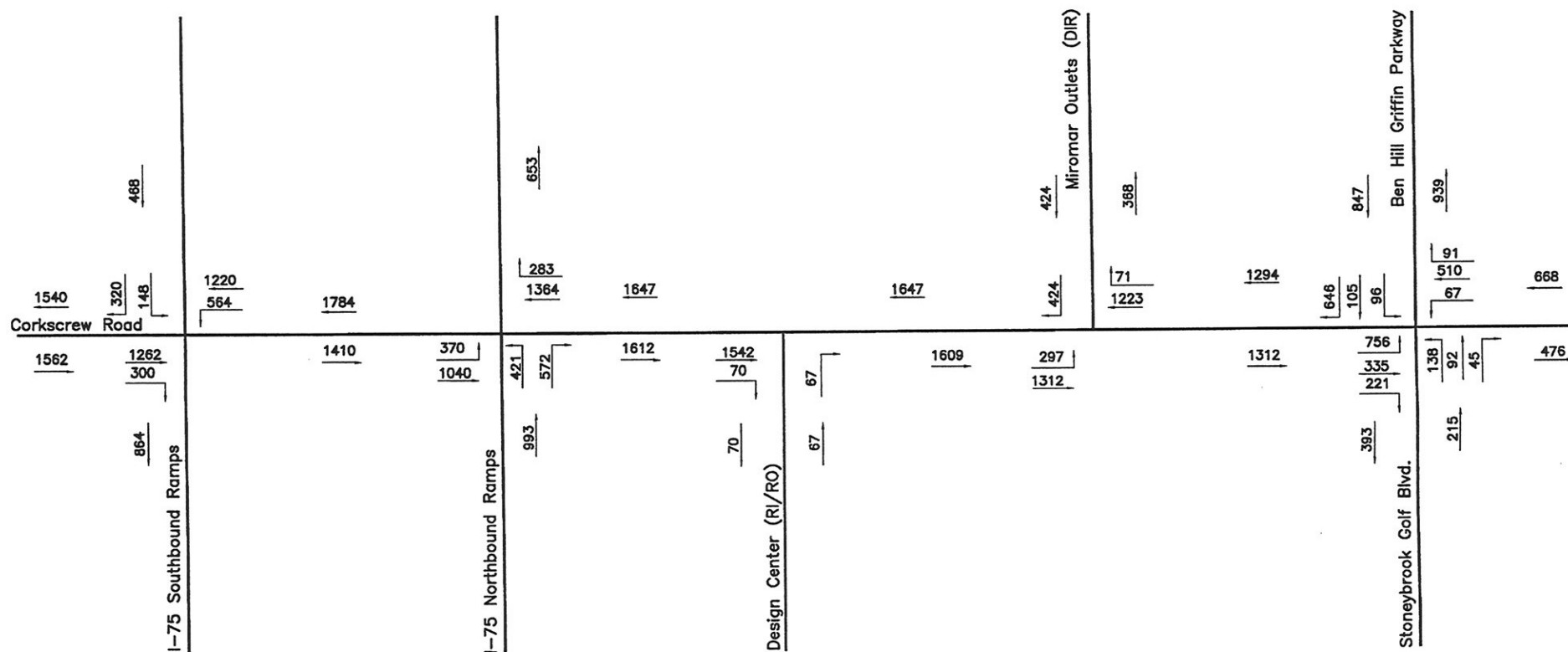


07569/01A/0807



**MIROMAR OUTLETS
CORKSCREW ROAD ACCESS EVALUATION**

PROJECT LOCATION MAP



MIROMAR OUTLETS
CORKSCREW ROAD ACCESS EVALUATION

EXISTING PEAK HOUR
TRAFFIC VOLUMES

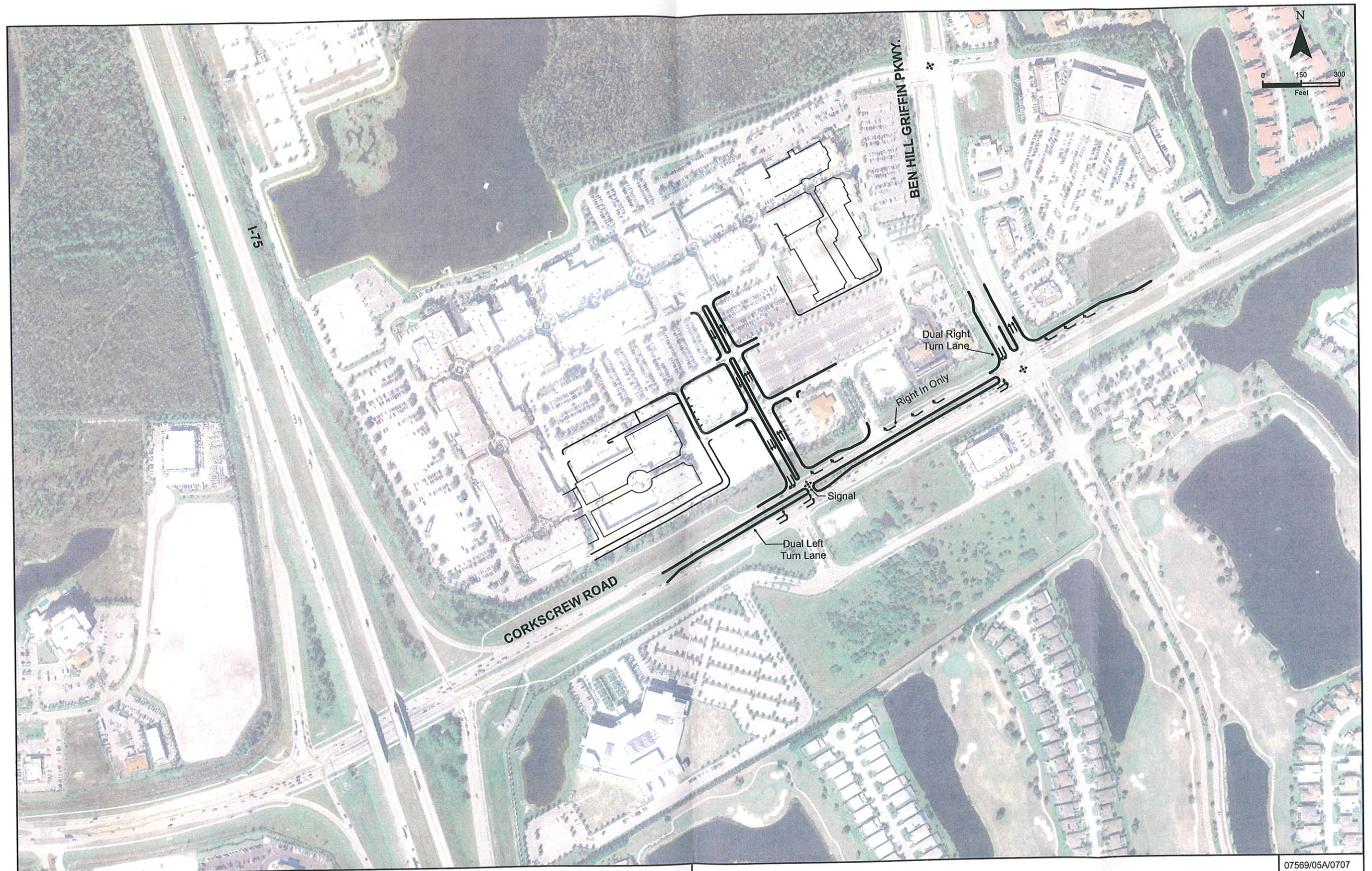
07569/04/0807



MIROMAR OUTLETS CORKSCREW ROAD ACCESS EVALUATION

EXISTING CONDITIONS

07569/02A/0807



**MIROMAR OUTLETS
CORKSCREW ROAD ACCESS EVALUATION**

PROPOSED IMPROVEMENTS

07569/05A/0707

EXHIBIT 5

MIROMAR OUTLETS CORKSCREW ROAD ACCESS EVALUATION

SYNCHRO ANALYSIS ⁽¹⁾ MEASURES OF EFFECTIVENESS - WITHOUT IMPROVEMENTS

<u>Measure of Effectiveness</u>	<u>Without Improvement</u>
<u>Corkscrew Road</u>	
Total Delay/Vehicle (Sce/Veh)	13
Total Delay (Hours)	90
Stops/Vehicle	0.32
Stops	7910
Performance Index	112
Eastbound Average Speed (MPH)	29.2
Eastbound Arterial LOS	C
Westbound Average Speed (MPH)	28.8
Westbound Arterial LOS	C
<u>Network</u>	
Total Delay/Vehicle (Sce/Veh)	17
Total Delay (Hours)	167
Stops/Vehicle	0.36
Stops	12,992
Average Speed (MPH)	24
Travel Time (Hours)	328
Performance Index	203.1

Footnotes:

- (1) Based on Synchro 6 arterial level of service and measures of effectiveness reports.
Please see Appendix B.

EXHIBIT 6

MIROMAR OUTLETS CORKSCREW ROAD ACCESS EVALUATION

SYNCHRO ANALYSIS ⁽¹⁾ MEASURES OF EFFECTIVENESS - WITH IMPROVEMENTS

<u>Measure of Effectiveness</u>	<u>With Improvement</u>
<u>Corkscrew Road</u>	
Total Delay/Vehicle (Sce/Veh)	13
Total Delay (Hours)	91
Stops/Vehicle	0.28
Stops	6930
Performance Index	110.6
Eastbound Average Speed (MPH)	28.7
Eastbound Arterial LOS	C
Westbound Average Speed (MPH)	27.4
Westbound Arterial LOS	C
<u>Network</u>	
Total Delay/Vehicle (Sce/Veh)	16
Total Delay (Hours)	162
Stops/Vehicle	0.33
Stops	11,911
Average Speed (MPH)	24
Travel Time (Hours)	322
Performance Index	195.5

Footnotes:

- (1) Based on Synchro 6 arterial level of service and measures of effectiveness reports.
Please see Appendix B.

EXHIBIT 7

MIROMAR OUTLETS CORKSCREW ROAD ACCESS EVALUATION

SIMTTraffic ANALYSIS ⁽¹⁾ INTERSECTION MEASURES OF EFFECTIVENESS - WITHOUT IMPROVEMENTS

<u>Measure of Effectiveness</u>	<u>Without Improvement</u>
Corkscrew Road/Miromar Directional Median Opening	
Total Delay/Vehicle (Sce/Veh)	38.6
Total Delay (Hours)	37.9
Total Stops	1,224
Average Speed (MPH)	15
Eastbound Left 95% Queue (Feet)	849
Eastbound Left Queuing Penalty (Veh)	23
Corkscrew Road/Ben Hill Griffin Parkway	
Total Delay/Vehicle (Sce/Veh)	51.9
Total Delay (Hours)	48.2
Total Stops	2535
Average Speed (MPH)	6
Eastbound Left 95% Queue (Feet)	593 ⁽²⁾
Eastbound Left Queuing Penalty (Veh)	15

Footnotes:

(1) Based on SimTraffic performance reports and queuing and blocking reports.

Please see Appendix C.

(2) Average queue length for dual left turn lanes.

EXHIBIT 8

MIROMAR OUTLETS
CORKSCREW ROAD ACCESS EVALUATION

SIMTTraffic ANALYSIS ⁽¹⁾
INTERSECTION MEASURES OF EFFECTIVENESS - WITH IMPROVEMENTS

<u>Measure of Effectiveness</u>	<u>With Improvement</u>
Corkscrew Road/Miromar Directional Median Opening	
Total Delay/Vehicle (Sce/Veh)	14.4
Total Delay (Hours)	14
Total Stops	916
Average Speed (MPH)	24
Eastbound Left 95% Queue (Feet)	176 ⁽²⁾
Eastbound Left Queuing Penalty (Veh)	0
Corkscrew Road/Ben Hill Griffin Parkway	
Total Delay/Vehicle (Sce/Veh)	46.3
Total Delay (Hours)	42
Total Stops	2349
Average Speed (MPH)	8
Eastbound Left 95% Queue (Feet)	490 ⁽²⁾
Eastbound Left Queuing Penalty (Veh)	0

Footnotes:

(1) Based on SimTraffic performance reports and queuing and blocking reports.

Please see Appendix C.

(2) Average queue length for dual left turn lanes.

APPENDIX A
INTERSECTION TURNING MOVEMENT COUNTS

CRKI75S6
LEE COUNTY DOT/TRAFFIC DIVISION
TURN COUNT SUMMARY REPORT(C) - VER 1.0

TEXT FILE - CRKI75S6.TXT

SUMMARY REPORT DATE: 07-06-2007 AND TIME 14:13:34 * FILE NAME CRKI75S6.TCS
LOCATION: CORKSCREW/I75SB504
ANALYST - GREG COGGINS
PAGE 1 * COUNT DATE :01/25/06 * START TIME - 0900

TURN COUNT SUMMARY REPORT(C) IS FOR THE FOLLOWING HI-STAR(R) DATA FILES;

FILE # 1 CRK54SLA FILE # 2 CRK54SLB FILE # 3 CRK54SR1 FILE # 4 CRK54SR2
FILE # 5 CRK54EBL FILE # 6 CRK54ET3 FILE # 7 CRK54ET4 FILE # 8 CRK54WBL
FILE # 9 CRK54WT1 FILE #10 CRK54WT2

***** OPERATION SUMMARY *****

$$1 + 2 \mid 2 + 3 \mid 3 + 4 \mid 3 + 4 \mid 5 + 6 \mid$$

* INTERSECTION HOURLY APPROACH TOTALS *									
APPROACH		THURSDAY		FRIDAY		SATURDAY		SUNDAY	
NO.	NAME	AM	PM	AM	PM	AM	PM	AM	PM
1	W. 1ST ST.	10	10	10	10	10	10	10	10
2	W. 2ND ST.	10	10	10	10	10	10	10	10
3	W. 3RD ST.	10	10	10	10	10	10	10	10
4	W. 4TH ST.	10	10	10	10	10	10	10	10
5	W. 5TH ST.	10	10	10	10	10	10	10	10
6	W. 6TH ST.	10	10	10	10	10	10	10	10
7	W. 7TH ST.	10	10	10	10	10	10	10	10
8	W. 8TH ST.	10	10	10	10	10	10	10	10
9	W. 9TH ST.	10	10	10	10	10	10	10	10
10	W. 10TH ST.	10	10	10	10	10	10	10	10
11	W. 11TH ST.	10	10	10	10	10	10	10	10
12	W. 12TH ST.	10	10	10	10	10	10	10	10
13	W. 13TH ST.	10	10	10	10	10	10	10	10
14	W. 14TH ST.	10	10	10	10	10	10	10	10
15	W. 15TH ST.	10	10	10	10	10	10	10	10
16	W. 16TH ST.	10	10	10	10	10	10	10	10
17	W. 17TH ST.	10	10	10	10	10	10	10	10
18	W. 18TH ST.	10	10	10	10	10	10	10	10
19	W. 19TH ST.	10	10	10	10	10	10	10	10
20	W. 20TH ST.	10	10	10	10	10	10	10	10
21	W. 21ST ST.	10	10	10	10	10	10	10	10
22	W. 22ND ST.	10	10	10	10	10	10	10	10
23	W. 23RD ST.	10	10	10	10	10	10	10	10
24	W. 24TH ST.	10	10	10	10	10	10	10	10
25	W. 25TH ST.	10	10	10	10	10	10	10	10
26	W. 26TH ST.	10	10	10	10	10	10	10	10
27	W. 27TH ST.	10	10	10	10	10	10	10	10
28	W. 28TH ST.	10	10	10	10	10	10	10	10
29	W. 29TH ST.	10	10	10	10	10	10	10	10
30	W. 30TH ST.	10	10	10	10	10	10	10	10
31	W. 31ST ST.	10	10	10	10	10	10	10	10
32	W. 32ND ST.	10	10	10	10	10	10	10	10
33	W. 33RD ST.	10	10	10	10	10	10	10	10
34	W. 34TH ST.	10	10	10	10	10	10	10	10
35	W. 35TH ST.	10	10	10	10	10	10	10	10
36	W. 36TH ST.	10	10	10	10	10	10	10	10
37	W. 37TH ST.	10	10	10	10	10	10	10	10
38	W. 38TH ST.	10	10	10	10	10	10	10	10
39	W. 39TH ST.	10	10	10	10	10	10	10	10
40	W. 40TH ST.	10	10	10	10	10	10	10	10
41	W. 41ST ST.	10	10	10	10	10	10	10	10
42	W. 42ND ST.	10	10	10	10	10	10	10	10
43	W. 43RD ST.	10	10	10	10	10			

START TIME - 0900

[illegible]

COMMENTS :

- 1) Makeups EBL,SL1,SL2
- 2)

* PAGE 2 TURN COUNT SUMMARY REPORT(C) *

* PEAK HOUR ANALYSIS *

CRKI75S6

DATE: 01/25/06

START TIME - 0900

LOCATION: CORKSCREW/I75SB504

TOP THREE PEAK HOURS; *1700- 3597 VPH *1600- 3538 VPH *1800- 3501 VPH

FIRST PEAK HOUR ENDING AT: 1700

TIME	SBL	SBR	EBT	WBL	WBT	TOTAL
1600	34	82	340	119	340	915
1615	34	79	313	125	340	891
1630	41	75	311	125	306	858
1645	39	84	298	195	317	933
-----	-----	-----	-----	-----	-----	-----
	148	320	1262	564	1303	3597
PHF	0.90	0.95	0.93	0.72	0.96	0.96
%	4%	9%	35%	16%	36%	100%

SECOND PEAK HOUR ENDING AT: 1600

TIME	SBL	SBR	EBT	WBL	WBT	TOTAL
1500	47	88	318	115	283	851
1515	32	72	255	114	364	837
1530	48	71	332	187	357	995
1545	37	88	304	121	305	855
-----	-----	-----	-----	-----	-----	-----
	164	319	1209	537	1309	3538
PHF	0.85	0.91	0.91	0.72	0.90	0.89
%	5%	9%	34%	15%	37%	100%

THIRD PEAK HOUR ENDING AT: 1800

TIME	SBL	SBR	EBT	WBL	WBT	TOTAL
1700	31	88	296	141	328	884
1715	66	67	315	156	356	960
1730	45	65	304	108	316	838
1745	47	71	292	109	300	819
-----	-----	-----	-----	-----	-----	-----
	189	291	1207	514	1300	3501
PHF	0.72	0.83	0.96	0.82	0.91	0.91
%	5%	8%	34%	15%	37%	100%

♀

* PAGE 3

TURN COUNT SUMMARY REPORT(C)

*

APPROACH VOLUME DATA

*

DATE: 01/25/06

START TIME - 0900

LOCATION: CORKSCREW/I75SB504

TIME	SBL	SBR	EBT	WBL	WBT	TOTAL
9	35	103	246	93	215	692
915	29	93	225	92	237	676
930	46	67	241	71	146	571
945	38	70	238	73	163	582

CRKI75S6

1000	51	66	261	142	172	692
1015	63	61	230	74	206	634
1030	42	93	279	94	220	728
1045	56	81	266	63	196	662
1100	62	73	266	108	222	731
1115	49	65	253	98	185	650
1130	74	66	217	81	213	651
1145	55	74	266	77	215	687
1200	48	80	251	106	222	707
1215	62	74	259	117	259	771
1230	41	83	245	123	237	729
1245	50	72	239	93	252	706
1300	48	63	260	106	234	711
1315	51	96	317	104	202	770
1330	62	70	277	106	244	759
1345	53	66	275	101	250	745
1400	59	85	270	98	276	788
1415	49	72	261	115	277	774
1430	30	87	272	110	259	758
1445	39	85	289	106	245	764
1500	47	88	318	115	283	851
1515	32	72	255	114	364	837
1530	48	71	332	187	357	995
1545	37	88	304	121	305	855
1600	34	82	340	119	340	915
1615	34	79	313	125	340	891
1630	41	75	311	125	306	858
1645	39	84	298	195	317	933
1700	31	88	296	141	328	884
1715	66	67	315	156	356	960
1730	45	65	304	108	316	838
1745	47	71	292	109	300	819
1800	44	76	272	112	269	773
1815	57	62	269	97	262	747
1830	50	71	222	103	284	730
1845	34	59	185	67	218	563
1900	32	45	170	67	160	474
1915	28	35	122	65	204	454
1930	20	39	118	65	149	391
1945	20	40	96	108	147	411
2000	24	33	132	62	128	379
2015	28	38	122	67	114	369
2030	9	30	97	34	102	272
2045	17	32	83	40	116	288
2100	15	23	109	62	129	338
2115	15	28	97	85	172	397
2130	14	20	84	58	144	320
2145	12	21	85	35	91	244
2200	6	17	92	19	59	193
2215	9	19	53	30	74	185
2230	10	17	57	26	59	169
2245	5	17	68	20	65	175
2300	8	26	31	15	58	138
2315	8	18	36	30	44	136
2330	8	13	32	19	39	111
2345	8	11	36	9	34	98
2400	0	9	21	7	24	61
2415	6	10	15	6	26	63
2430	3	11	21	5	19	59
2445	2	7	10	4	9	32
100	0	6	12	4	16	38
115	3	2	24	2	12	43
130	0	3	7	3	21	34

CRKI75S6

145	2	1	8	2	15	28
200	0	0	6	5	32	43
215	0	3	11	2	11	27
230	3	1	7	3	7	21
245	0	3	7	4	3	17
300	0	6	3	1	4	14
315	0	8	4	0	3	15
330	4	4	4	3	7	22
345	2	3	12	0	5	22
400	0	2	11	1	7	21
415	0	8	10	1	6	25
430	2	6	18	6	4	36
445	7	9	18	2	9	45
500	10	13	18	5	17	63
515	13	26	35	9	16	99
530	11	48	55	32	49	195
545	13	54	74	30	47	218
600	14	61	71	50	76	272
615	35	133	118	57	112	455
630	27	152	131	77	192	579
645	44	154	174	83	221	676
700	42	131	167	147	240	727
715	37	114	197	103	231	682
730	42	123	227	121	205	718
745	57	124	222	116	236	755
800	31	132	173	70	247	653
815	51	127	208	113	254	753
830	68	126	210	63	202	669
845	55	110	298	78	233	774

2758 529515156 64761519844883

END OF DATA

♀

CRKI75N6
LEE COUNTY DOT/TRAFFIC DIVISION
TURN COUNT SUMMARY REPORT(C) - VER 1.0

TEXT FILE - CRKI75N6.TXT

SUMMARY REPORT DATE: 07-06-2007 AND TIME 14:13:26 * FILE NAME CRKI75N6.TCS
LOCATION: CORKSCREW/I75NB503
ANALYST - EARL R. SALLEY
PAGE 1 * COUNT DATE :01/18/06 * START TIME - 0900

TURN COUNT SUMMARY REPORT(C) IS FOR THE FOLLOWING HI-STAR(R) DATA FILES;

FILE # 1 CRK53NL1 FILE # 2 CRK53NL2 FILE # 3 CRK53NR1 FILE # 4 CRK53NR2
FILE # 5 CRK53EBL FILE # 6 CRK53ET3 FILE # 7 CRK53ET4 FILE # 8 CRK53WBL
FILE # 9 CRK53WT1 FILE #10 CRK53WT2

***** OPERATION SUMMARY *****

$$1 + 2 \mid 2 + 3 \mid 4 + 5 \mid 5 + 6 \mid 5 + 6 \mid$$

* INTERSECTION HOURLY APPROACH TOTALS *

START TIME - 0900

[illegible]

COMMENTS:

- 1)
- 2)

* PAGE 2 TURN COUNT SUMMARY REPORT(C) *

* PEAK HOUR ANALYSIS *

CRKI75N6

DATE: 01/18/06

START TIME - 0900

LOCATION: CORKSCREW/I75NB503

TOP THREE PEAK HOURS; *1800- 3759 VPH *1700- 3694 VPH *1600- 3608 VPH

FIRST PEAK HOUR ENDING AT: 1800

TIME	NBL	NBR	EBL	EBT	WBT	TOTAL
1700	86	143	78	265	351	923
1715	108	140	92	263	368	971
1730	118	159	71	282	306	936
1745	175	131	73	263	287	929
----	----	----	----	----	----	----
	487	573	314	1073	1312	3759

PHF	0.70	0.90	0.85	0.95	0.89	0.97
%	13%	15%	8%	29%	35%	100%

SECOND PEAK HOUR ENDING AT: 1700

TIME	NBL	NBR	EBL	EBT	WBT	TOTAL
1600	85	147	83	226	319	860
1615	140	140	99	236	368	983
1630	96	140	96	260	330	922
1645	100	145	92	245	347	929
----	----	----	----	----	----	----
	421	572	370	967	1364	3694

PHF	0.75	0.97	0.93	0.93	0.93	0.94
%	11%	15%	10%	26%	37%	100%

THIRD PEAK HOUR ENDING AT: 1600

TIME	NBL	NBR	EBL	EBT	WBT	TOTAL
1500	81	99	88	245	338	851
1515	120	117	82	209	345	873
1530	113	119	112	252	397	993
1545	76	126	97	250	342	891
----	----	----	----	----	----	----
	390	461	379	956	1422	3608

PHF	0.81	0.91	0.85	0.95	0.90	0.91
%	11%	13%	11%	26%	39%	100%

♀

* PAGE 3

TURN COUNT SUMMARY REPORT(C)

*

*

APPROACH VOLUME DATA

*

DATE: 01/18/06

START TIME - 0900

LOCATION: CORKSCREW/I75NB503

TIME	NBL	NBR	EBL	EBT	WBT	TOTAL
9	60	119	66	200	236	681
915	54	90	64	192	237	637
930	44	93	84	238	189	648
945	51	90	100	219	187	647

CRKI75N6

1000	49	140	74	222	195	680
1015	46	128	70	225	217	686
1030	61	166	96	263	212	798
1045	66	140	93	294	230	823
1100	49	125	68	234	269	745
1115	54	164	59	257	221	755
1130	108	134	69	214	225	750
1145	52	125	76	264	243	760
1200	51	153	58	243	266	771
1215	58	115	82	262	326	843
1230	46	105	53	271	306	781
1245	59	118	65	267	282	791
1300	46	116	68	244	285	759
1315	52	131	75	264	245	767
1330	58	118	82	269	292	819
1345	60	131	61	272	310	834
1400	52	126	75	259	285	797
1415	65	120	84	234	309	812
1430	68	93	69	268	317	815
1445	52	125	82	234	295	788
1500	81	99	88	245	338	851
1515	120	117	82	209	345	873
1530	113	119	112	252	397	993
1545	76	126	97	250	342	891
1600	85	147	83	226	319	860
1615	140	140	99	236	368	983
1630	96	140	96	260	330	922
1645	100	145	92	245	347	929
1700	86	143	78	265	351	923
1715	108	140	92	263	368	971
1730	118	159	71	282	306	936
1745	175	131	73	263	287	929
1800	84	149	58	200	276	767
1815	77	119	116	203	280	795
1830	100	93	74	168	232	667
1845	100	76	45	160	200	581
1900	69	79	58	171	157	534
1915	70	46	46	114	188	464
1930	46	39	37	103	172	397
1945	47	55	49	99	187	437
2000	30	40	22	89	147	328
2015	40	42	31	98	144	355
2030	33	29	44	89	111	306
2045	29	31	30	65	121	276
2100	36	31	14	87	161	329
2115	42	24	18	56	198	338
2130	35	23	23	85	168	334
2145	25	40	33	71	95	264
2200	19	19	28	68	65	199
2215	32	16	17	43	70	178
2230	17	14	16	53	59	159
2245	26	22	16	51	57	172
2300	18	13	16	22	50	119
2315	10	11	9	35	63	128
2330	9	7	6	23	49	94
2345	7	10	5	33	35	90
2400	5	2	4	17	27	55
2415	4	5	7	15	26	57
2430	6	0	5	20	16	47
2445	2	1	4	9	11	27
100	8	0	5	7	13	33
115	4	5	4	27	10	50
130	4	1	3	4	18	30

CRKI75N6

145	0	2	4	8	21	35
200	4	1	2	6	29	42
215	3	3	4	13	11	34
230	2	2	2	2	10	18
245	2	4	2	4	4	16
300	2	4	2	1	3	12
315	2	2	2	4	2	12
330	1	3	3	4	7	18
345	3	4	6	11	2	26
400	2	3	2	5	6	18
415	2	3	5	6	5	21
430	0	5	10	14	8	37
445	3	12	8	17	7	47
500	5	16	9	10	20	60
515	5	17	13	23	20	78
530	13	24	15	51	58	161
545	20	22	28	63	66	199
600	20	25	26	48	95	214
615	51	48	57	80	141	377
630	117	69	50	94	182	512
645	121	89	49	154	204	617
700	146	66	61	144	227	644
715	87	99	84	129	240	639
730	60	106	71	163	263	663
745	72	107	80	172	271	702
800	84	74	52	145	251	606
815	85	89	76	160	240	650
830	72	100	107	178	195	652
845	139	107	91	235	228	800

4816 6719 4600131341649945768

END OF DATA

♀

CRKBNHL6
LEE COUNTY DOT/TRAFFIC DIVISION
TURN COUNT SUMMARY REPORT(C) - VER 1.0

TEXT FILE - CRKBNHL6.TXT

SUMMARY REPORT DATE: 07-06-2007 AND TIME 14:13:17 * FILE NAME CRKBNHL6.TCS

LOCATION: CORKSCREW ROAD/BEN HILL

ANALYST - GREG COGGINS

PAGE 1 * COUNT DATE : 01/18/06 * START TIME - 0900

TURN COUNT SUMMARY REPORT(C) IS FOR THE FOLLOWING HI-STAR(R) DATA FILES;

```
FILE # 1 CORBLNBL  FILE # 2 CORBLNBT  FILE # 3 CORBLNBR  FILE # 4 CORBLSBL
FILE # 5 CORBSBT   FILE # 6 CORBSBR   FILE # 7 CORBLEL1  FILE # 8 CORBLEL2
FILE # 9 CORBLET3  FILE #10 CORBLET4  FILE #11 CORBLEBR  FILE #12 CORBLWTL
FILE #13 CORBLWT2  FILE #14 CORBLWT1  FILE #15 CORBLWBR
```

***** OPERATION SUMMARY *****

$$7 + 8 \mid 8 + 9 \mid 11 + 12 \mid$$

* INTERSECTION HOURLY APPROACH TOTALS *

START TIME - 0900

[illegible]

COMMENTS:

1) Used Feb. '05 NBR counts

21

* PAGE 2 TURN COUNT SUMMARY REPORT(C) *

* PEAK HOUR ANALYSIS

CRKBNHL6

DATE: 01/18/06

START TIME - 0900

LOCATION: CORKSCREW ROAD/BEN HILL

TOP THREE PEAK HOURS; *1700- 3102 VPH *1800- 3075 VPH *1600- 2943 VPH

FIRST PEAK HOUR ENDING AT: 1700

TIME	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
1600	24	22	10	24	33	180	179	120	51	12	143	24	822
1615	46	22	8	24	17	156	180	67	59	13	143	18	753
1630	29	22	12	20	25	142	201	73	59	25	118	18	744
1645	39	26	15	28	30	168	196	75	52	17	106	31	783
----	138	92	45	96	105	646	756	335	221	67	510	91	3102

PHF	0.75	0.88	0.75	0.86	0.80	0.90	0.94	0.70	0.94	0.67	0.89	0.73	0.94
%	4%	3%	1%	3%	3%	21%	24%	11%	7%	2%	16%	3%	100%

SECOND PEAK HOUR ENDING AT: 1800

TIME	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
1700	41	20	14	29	21	172	218	80	65	22	98	14	794
1715	38	30	14	28	27	178	209	75	55	20	72	20	766
1730	43	26	8	28	16	135	240	69	76	18	97	20	776
1745	37	25	11	17	18	100	216	93	61	65	80	16	739
---	---	---	---	---	---	---	---	---	---	---	---	---	---
	159	101	47	102	82	585	883	317	257	125	347	70	3075

PHF	0.92	0.84	0.84	0.88	0.76	0.82	0.92	0.85	0.85	0.48	0.89	0.88	0.97
%	5%	3%	2%	3%	3%	19%	29%	10%	8%	4%	11%	2%	100%

THIRD PEAK HOUR ENDING AT: 1600

TIME	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
1500	38	20	10	27	12	141	144	73	39	11	121	30	666
1515	47	23	7	23	32	185	145	69	32	12	161	22	758
1530	31	20	6	25	18	185	158	72	51	12	151	20	749
1545	38	23	16	25	26	171	176	87	49	21	115	23	770
	154	86	39	100	88	682	623	301	171	56	548	95	2943

PHF	0.82	0.93	0.61	0.93	0.69	0.92	0.88	0.86	0.84	0.67	0.85	0.79	0.96
%	5%	3%	1%	3%	3%	23%	21%	10%	6%	2%	19%	3%	100%

```
*****
* PAGE 3                                TURN COUNT SUMMARY REPORT(C)
*                                APPROACH VOLUME DATA
*****
```

DATE: 01/18/06

START TIME - 0900

LOCATION: CORKSCREW ROAD/BEN HILL

TIME	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
9	48	14	6	30	20	97	163	104	22	7	132	20	663
915	45	27	6	24	16	97	149	59	31	7	113	24	598
930	34	14	5	15	16	69	116	74	28	7	114	15	507
945	40	18	2	22	11	87	184	62	24	13	86	9	558

CRKBNHL6

1000	39	16	6	16	10	99	170	88	23	8	117	18	610
1015	30	19	5	19	12	105	166	63	30	32	106	9	596
1030	37	18	3	21	16	93	189	78	25	4	90	14	588
1045	33	22	6	22	11	121	191	63	39	9	104	15	636
1100	36	25	10	22	29	122	174	76	29	5	101	11	640
1115	36	27	4	26	14	98	188	74	33	8	85	17	610
1130	35	12	11	22	17	111	170	66	23	15	109	24	615
1145	35	27	12	27	21	113	153	66	34	12	78	17	595
1200	43	37	7	30	20	149	209	66	34	25	90	10	720
1215	41	17	6	40	21	189	193	71	41	10	87	23	739
1230	38	28	9	35	17	141	169	66	35	17	104	11	670
1245	21	33	20	25	24	127	167	73	35	14	102	14	655
1300	38	21	4	26	21	128	137	51	46	14	104	13	603
1315	42	17	8	21	15	106	185	63	33	18	86	19	613
1330	36	19	13	24	12	139	196	82	33	27	110	24	715
1345	23	28	4	37	14	164	160	84	43	9	90	17	673
1400	19	15	6	35	15	142	168	83	53	11	85	15	647
1415	29	20	5	25	9	170	131	75	27	54	118	8	671
1430	30	25	8	26	22	136	146	77	43	17	91	21	642
1445	40	20	11	22	30	123	154	94	42	23	84	16	659
1500	38	20	10	27	12	141	144	73	39	11	121	30	666
1515	47	23	7	23	32	185	145	69	32	12	161	22	758
1530	31	20	6	25	18	185	158	72	51	12	151	20	749
1545	38	23	16	25	26	171	176	87	49	21	115	23	770
1600	24	22	10	24	33	180	179	120	51	12	143	24	822
1615	46	22	8	24	17	156	180	67	59	13	143	18	753
1630	29	22	12	20	25	142	201	73	59	25	118	18	744
1645	39	26	15	28	30	168	196	75	52	17	106	31	783
1700	41	20	14	29	21	172	218	80	65	22	98	14	794
1715	38	30	14	28	27	178	209	75	55	20	72	20	766
1730	43	26	8	28	16	135	240	69	76	18	97	20	776
1745	37	25	11	17	18	100	216	93	61	65	80	16	739
1800	40	19	15	24	31	132	187	49	63	13	84	15	672
1815	26	27	9	19	32	152	166	48	66	23	97	14	679
1830	34	24	8	30	25	109	114	42	58	22	89	7	562
1845	31	19	4	22	11	108	119	39	39	20	59	9	480
1900	24	16	3	12	14	109	134	28	41	20	31	9	441
1915	18	17	2	13	20	107	85	18	47	20	45	4	396
1930	21	12	2	14	12	110	57	52	39	13	36	1	369
1945	17	11	3	14	16	134	75	25	40	11	18	3	367
2000	10	12	6	8	16	81	49	26	40	22	30	3	303
2015	23	9	2	7	12	89	62	29	35	7	20	4	299
2030	13	8	1	7	12	61	46	35	30	10	12	4	239
2045	10	8	2	11	12	73	42	21	28	6	31	1	245
2100	10	5	0	6	11	107	62	16	28	5	15	2	267
2115	11	7	2	11	25	147	38	14	29	5	12	2	303
2130	23	8	3	7	24	127	53	21	27	1	16	2	312
2145	12	7	1	11	17	56	41	26	32	6	19	1	229
2200	16	7	2	4	18	33	45	13	27	3	15	2	185
2215	11	4	0	1	19	49	30	9	16	4	14	3	160
2230	14	4	0	5	9	36	32	7	33	1	7	0	148
2245	11	5	0	0	9	44	28	12	33	2	8	0	152
2300	12	5	0	3	13	37	18	1	16	3	10	3	121
2315	12	5	0	3	8	54	19	4	22	1	8	0	136
2330	5	4	1	1	3	35	15	1	13	2	5	1	86
2345	7	5	0	0	8	26	14	9	19	0	6	1	95
2400	5	3	0	0	4	21	10	3	8	3	4	1	62
2415	13	4	0	0	5	11	9	1	10	1	4	1	59
2430	7	4	0	1	3	11	7	0	11	0	0	0	44
2445	2	3	0	0	1	9	7	1	4	1	1	0	29
100	4	4	0	0	2	9	3	0	4	0	1	0	27
115	4	7	0	0	1	6	13	3	15	2	0	0	51
130	14	4	0	0	0	4	3	1	1	1	3	0	31

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145	23	7	0	0	2	2	4	3	2	0	4	0	47	
200	27	21	0	0	2	5	4	1	3	0	0	0	63	
215	11	3	0	0	0	2	8	1	4	0	2	0	31	
230	4	3	0	0	0	1	1	1	2	0	3	0	15	
245	2	1	0	0	0	3	2	0	4	0	0	0	12	
300	1	0	0	0	1	1	1	3	1	1	2	1	12	
315	2	0	0	0	0	1	2	1	0	0	3	0	9	
330	3	0	0	0	0	1	5	1	2	0	1	0	13	
345	1	0	0	0	0	1	14	2	0	0	0	1	19	
400	6	0	0	0	0	2	3	3	2	1	1	0	18	
415	4	3	0	1	1	4	5	4	0	1	0	0	23	
430	2	2	0	0	0	2	7	6	2	0	5	1	27	
445	1	3	0	0	1	1	10	17	2	0	5	0	40	
500	6	0	0	0	0	5	10	15	0	0	12	0	48	
515	2	2	1	0	1	7	13	27	0	0	18	3	74	
530	9	1	0	2	1	18	19	41	3	2	53	2	151	
545	8	2	1	0	4	16	29	31	5	2	49	7	154	
600	14	4	4	1	1	33	28	33	2	0	66	4	190	
615	31	11	2	18	6	51	44	54	2	1	97	9	326	
630	51	8	2	22	3	78	70	58	3	1	116	11	423	
645	55	9	3	30	4	69	96	94	15	3	112	6	496	
700	64	15	3	23	11	82	60	109	14	1	133	22	537	
715	51	16	8	27	8	87	95	101	9	6	137	14	559	
730	77	21	5	28	4	108	129	90	11	2	132	65	672	
745	58	26	6	34	13	104	132	101	16	11	151	16	668	
800	58	16	5	28	8	101	95	94	21	7	137	16	586	
815	51	11	4	22	7	81	93	94	25	7	132	13	540	
830	51	16	1	25	9	93	124	96	25	9	102	52	603	
845	45	18	10	32	2	76	137	116	23	7	118	24	608	

 2477 1294 429 1437 1170 7961 9113 4462 2527 904 6082 100038856

END OF DATA

♀

CRK30AK6
LEE COUNTY DOT/TRAFFIC DIVISION
TURN COUNT SUMMARY REPORT(C) - VER 1.0

TEXT FILE - CRK3OAK6.TXT

SUMMARY REPORT DATE: 07-06-2007 AND TIME 14:13:08 * FILE NAME CRK3OAK6.TCS
LOCATION: CORKSCREW ROAD/3 OAKS
ANALYST - EARL R. SALLEY
PAGE 1 * COUNT DATE :01/11/06 * START TIME - 1100

TURN COUNT SUMMARY REPORT(C) IS FOR THE FOLLOWING HI-STAR(R) DATA FILES;

FILE # 1 CORK3NBL	FILE # 2 CORK3NBT	FILE # 3 CORK3NBR	FILE # 4 CORK3SBL
FILE # 5 CORK3SBT	FILE # 6 CORK3SBR	FILE # 7 CORK3EBL	FILE # 8 CORK3ET3
FILE # 9 CORK3ET4	FILE #10 CORK3EBR	FILE #11 CORK3WBL	FILE #12 CORK3WT2
FILE #13 CORK3WT1	FILE #14 CORK3WBR		

***** OPERATION SUMMARY *****

$$12 + 13 \mid 8 + 9 \mid$$

*	INTERSECTION HOURLY APPROACH TOTALS	*
---	--	---

START TIME - 1100

[illegible]

COMMENTS:

- 1) NO FAILURES
2)

* PAGE 2

TURN COUNT SUMMARY REPORT(C)

PEAK HOUR ANALYSIS

CRK30AK6

DATE: 01/11/06

START TIME - 1100

LOCATION: CORKSCREW ROAD/3 OAKS

TOP THREE PEAK HOURS; *1600- 3809 VPH *1800- 3673 VPH *1700- 3508 VPH

FIRST PEAK HOUR ENDING AT: 1600

TIME	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
1500	17	39	122	122	35	28	38	137	23	79	110	72	822
1515	11	41	122	87	36	19	34	156	28	130	159	128	951
1530	12	55	132	90	46	28	37	173	26	132	188	134	1053
1545	12	37	123	82	39	24	50	179	23	112	169	133	983
	52	172	499	381	156	99	159	645	100	453	626	467	3809
PHF	0.76	0.78	0.95	0.78	0.85	0.88	0.80	0.90	0.89	0.86	0.83	0.87	0.90
%	1%	5%	13%	10%	4%	3%	4%	17%	3%	12%	16%	12%	100%

SECOND PEAK HOUR ENDING AT: 1800

TIME	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
1700	6	57	128	88	25	21	56	175	10	106	176	106	954
1715	15	59	153	77	38	14	38	157	15	99	148	122	935
1730	8	76	146	89	42	28	38	144	16	88	117	124	916
1745	9	64	140	85	26	19	36	142	9	93	128	117	868
	38	256	567	339	131	82	168	618	50	386	569	469	3673
PHF	0.63	0.84	0.93	0.95	0.78	0.73	0.75	0.88	0.78	0.91	0.81	0.95	0.96
%	1%	7%	15%	9%	4%	2%	5%	17%	1%	11%	15%	13%	100%

THIRD PEAK HOUR ENDING AT: 1700

TIME	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
1600	13	57	123	85	43	28	44	160	20	112	109	100	894
1615	16	37	132	76	41	28	40	156	13	99	133	125	896
1630	14	47	123	101	44	32	41	141	14	106	146	87	896
1645	5	70	119	88	44	19	43	136	16	78	101	103	822
	48	211	497	350	172	107	168	593	63	395	489	415	3508
PHF	0.75	0.75	0.94	0.87	0.98	0.84	0.95	0.93	0.79	0.88	0.84	0.83	0.98
%	1%	6%	14%	10%	5%	3%	5%	17%	2%	11%	14%	12%	100%

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 * PAGE 3 TURN COUNT SUMMARY REPORT(C) *
 * APPROACH VOLUME DATA *

DATE: 01/11/06

START TIME - 1100

LOCATION: CORKSCREW ROAD/3 OAKS

TIME	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
1100	19	27	88	70	31	34	31	127	8	83	127	77	722
1115	17	47	80	68	34	13	26	124	14	74	148	57	702
1130	11	16	76	81	38	29	32	134	19	79	115	69	699
1145	17	27	88	99	32	33	40	144	24	70	164	76	814

CRK30AK6

1200	21	22	96	92	38	28	54	123	13	87	138	86	798
1215	14	32	76	87	29	31	47	160	22	84	144	78	804
1230	17	33	89	73	32	28	38	147	20	80	156	105	818
1245	21	33	99	87	38	33	31	138	17	85	125	76	783
1300	9	24	71	123	26	28	44	144	21	90	121	93	794
1315	26	20	92	137	28	27	37	117	21	73	128	81	787
1330	11	30	85	77	37	22	39	141	16	74	128	86	746
1345	18	60	95	80	31	24	47	169	20	72	147	86	849
1400	11	61	92	82	36	29	51	126	15	104	133	94	834
1415	38	31	93	70	46	36	36	128	19	92	130	86	805
1430	14	29	112	108	45	24	37	152	20	74	154	83	852
1445	12	30	101	102	37	19	34	169	19	65	123	75	786
1500	17	39	122	122	35	28	38	137	23	79	110	72	822
1515	11	41	122	87	36	19	34	156	28	130	159	128	951
1530	12	55	132	90	46	28	37	173	26	132	188	134	1053
1545	12	37	123	82	39	24	50	179	23	112	169	133	983
1600	13	57	123	85	43	28	44	160	20	112	109	100	894
1615	16	37	132	76	41	28	40	156	13	99	133	125	896
1630	14	47	123	101	44	32	41	141	14	106	146	87	896
1645	5	70	119	88	44	19	43	136	16	78	101	103	822
1700	6	57	128	88	25	21	56	175	10	106	176	106	954
1715	15	59	153	77	38	14	38	157	15	99	148	122	935
1730	8	76	146	89	42	28	38	144	16	88	117	124	916
1745	9	64	140	85	26	19	36	142	9	93	128	117	868
1800	7	65	94	91	31	19	38	118	14	96	100	138	811
1815	7	46	107	71	22	14	29	134	11	93	112	114	760
1830	4	51	62	71	24	13	28	114	9	71	86	128	661
1845	8	48	68	56	18	19	32	89	6	68	115	112	639
1900	5	55	52	35	25	11	28	74	11	61	117	108	582
1915	7	34	58	42	9	16	15	82	8	36	80	71	458
1930	1	21	36	53	8	10	16	60	3	34	72	95	409
1945	0	15	26	55	14	18	19	62	7	32	67	65	380
2000	3	21	44	29	14	10	19	55	3	53	43	75	369
2015	2	34	30	47	11	9	18	56	6	38	52	61	364
2030	1	19	32	42	19	12	18	48	2	35	61	53	342
2045	4	21	31	49	11	13	17	35	1	31	61	61	335
2100	2	32	28	33	8	6	19	46	5	38	50	61	328
2115	1	19	39	32	13	4	22	59	4	35	56	78	362
2130	2	19	35	33	6	4	8	29	3	29	52	47	267
2145	2	19	39	18	15	3	14	43	1	15	29	45	243
2200	8	15	26	23	9	6	11	43	3	14	34	49	241
2215	1	12	12	26	7	5	11	24	1	13	26	33	171
2230	2	6	13	14	4	2	11	23	0	19	25	33	152
2245	1	8	16	18	4	3	8	19	1	22	24	31	155
2300	0	9	14	18	2	1	10	25	1	15	28	37	160
2315	2	8	9	22	1	0	8	17	0	16	23	27	133
2330	0	1	11	15	2	3	3	20	0	7	10	15	87
2345	0	7	6	18	1	1	5	13	1	4	12	15	83
2400	0	2	8	17	2	4	5	18	1	6	18	18	99
2415	0	3	3	12	1	0	2	3	0	12	10	6	52
2430	0	2	2	8	1	1	0	5	2	5	17	13	56
2445	0	3	2	6	3	0	2	7	0	3	6	7	39
100	0	1	3	6	4	0	2	5	1	2	7	7	38
115	0	1	1	3	1	0	0	3	1	3	4	12	29
130	0	1	0	9	0	0	0	8	0	0	9	12	39
145	0	4	1	6	0	0	1	4	0	2	2	17	37
200	0	0	0	5	1	1	1	6	0	4	6	13	37
215	0	2	1	7	3	0	1	0	0	1	3	10	28
230	0	0	1	5	0	0	0	4	0	0	4	9	23
245	0	1	3	11	0	0	3	2	0	0	3	6	29
300	0	0	0	3	0	0	1	4	0	3	10	7	28
315	1	0	0	4	1	1	1	3	0	1	1	2	15
330	0	0	3	9	2	1	1	2	0	1	4	5	28

	CRK3OAK6												
345	0	0	2	9	1	0	0	7	0	0	3	0	22
400	0	0	2	5	1	1	1	3	1	2	2	4	22
415	0	0	4	4	0	1	0	6	0	2	3	1	21
430	0	0	5	9	4	2	1	11	0	3	6	3	44
445	0	1	8	13	0	0	2	4	1	2	6	5	42
500	0	3	3	16	6	2	3	19	0	11	12	3	78
515	0	2	3	25	3	0	2	22	0	20	21	2	100
530	0	0	11	47	15	1	4	40	1	28	45	6	198
545	0	3	21	46	18	5	4	41	0	27	49	15	229
600	0	3	24	59	15	13	2	67	1	39	74	25	322
615	1	7	53	92	19	6	8	79	2	64	143	26	500
630	1	1	37	86	56	18	10	95	4	92	172	64	636
645	2	13	54	88	73	37	14	130	3	97	171	71	753
700	7	10	57	103	80	27	31	143	10	94	168	82	812
715	4	22	77	109	72	22	23	139	6	91	103	76	744
730	8	28	79	96	81	29	18	149	4	179	177	73	921
745	17	20	75	111	77	18	24	124	11	122	137	62	798
800	7	17	64	193	80	22	19	123	11	118	156	49	859
815	13	40	60	104	60	15	19	119	64	121	134	75	824
830	9	50	74	99	51	32	25	123	114	81	138	72	868
845	21	39	92	121	56	24	24	126	49	96	115	60	823
900	11	19	76	114	52	24	16	134	19	94	120	79	758
915	60	30	111	101	39	23	37	116	6	80	160	80	843
930	9	54	87	115	54	32	18	126	12	72	119	65	763
945	9	31	77	87	35	27	18	146	18	82	114	61	705
1000	14	26	89	63	25	25	21	143	16	83	119	66	690
1015	13	21	95	92	34	21	38	152	12	97	122	62	759
1030	17	52	103	120	31	18	22	145	17	82	131	68	806
1045	17	34	102	65	33	23	39	147	18	62	128	54	722

725 2292 5457 5720 2385 1404 1989 8140 1007 5379 8152 566448314

END OF DATA

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APPENDIX B
SYNCHRO ANALYSIS SHEETS

Miromar Outlets Corkscrew Road Access Evaluation
Alternative Comparisons

Multiple
PM 150 sec

Corkscrew Road	W	WD
Scenario #	1	2
Control Delay / Veh	13	13
Queue Delay / Veh	0	0
Total Delay / Veh	13	13
Total Delay	91	90
Stops / Veh	0.28	0.32
Stops	6930	7910
Average Speed (mph)	28	28
Total Travel Time (hr)	203	203
Distance Traveled (mi)	5606	5650
Fuel Consumed (gal)	361	377
Fuel Economy (mpg)	15.5	15.0
CO Emissions (kg)	25.24	26.32
NOx Emissions (kg)	4.91	5.12
VOC Emissions (kg)	5.85	6.10
Unserved Vehicles (#)	35	35
Vehicles in dilemma zone (#)	287	217
Performance Index	110.6	112.0

Network Totals

Scenario #	1	2
Number of Intersections	14	14
Most Popular Cycle (s)	150	150
Alternative	With Imp	Without
Timing Plan ID	PM 150 s	PM 150 s
Data Time	5:00 pm	5:00 pm
Control Delay / Veh	16	17
Queue Delay / Veh	0	0
Total Delay / Veh	16	17
Total Delay	162	167
Stops / Veh	0.33	0.36
Stops	11911	12992
Average Speed (mph)	24	24
Total Travel Time (hr)	322	328
Distance Traveled (mi)	7679	7722
Fuel Consumed (gal)	543	564
Fuel Economy (mpg)	14.1	13.7
CO Emissions (kg)	37.98	39.41
NOx Emissions (kg)	7.39	7.67
VOC Emissions (kg)	8.80	9.13
Unserved Vehicles (#)	42	35
Vehicles in dilemma zone (#)	376	306
Performance Index	195.5	203.1

Miromar Outlets Corkscrew Road Access Evaluation
Alternative Comparisons

Multiple
PM 150 sec

Scenario Information

Scenario #1

Filename: E:\07569\Revised\With.sy7
Location: Miromar Outlets Corkscrew Road Access Evaluation
Data Date: 7/26/2007 Data Time: 5:00 pm
Timing Plan ID: PM 150 sec
Alternative: With Improvements
Number of Signalized Intersections: 8
Most Popular Cycle Length: 150

Scenario #2

Filename: E:\07569\Revised\Without.sy7
Location: Miromar Outlets Corkscrew Road Access Evaluation
Data Date: 7/26/2007 Data Time: 5:00 pm
Timing Plan ID: PM 150 sec
Alternative: Without Improvements
Number of Signalized Intersections: 7
Most Popular Cycle Length: 150

Miromar Outlets Corkscrew Road Access Evaluation
 Arterial Level of Service

Without Improvements
 PM 150 sec

Arterial Level of Service: EB Corkscrew Road

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
River Ranch	I	50	32.0	6.1	38.1	0.35	33.2	C
ThreeOaks Pkwy	I	50	33.4	43.9	77.3	0.39	18.1	E
I75 SB On RAMP	I	50	50.8	35.2	86.0	0.70	29.5	C
I75NBLT	I	50	11.0	1.0	12.0	0.11	33.0	C
Stoneybrook	I	50	41.4	27.4	68.8	0.58	30.1	C
Pinewood Elem.	I	50	39.7	3.2	42.9	0.51	42.7	A
Total	I		208.3	116.8	325.1	2.64	29.2	C

Arterial Level of Service: WB Corkscrew Road

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Pinewood Elem.	I	50	20.2	4.7	24.9	0.20	29.1	C
Ben Hill Griffin Pkw	I	50	39.7	51.1	90.8	0.51	20.2	E
I75NBLT	I	50	41.4	33.2	74.6	0.58	27.8	C
I75 SB On RAMP	I	50	11.0	0.4	11.4	0.11	34.7	B
ThreeOaks Pkwy	I	50	50.8	23.2	74.0	0.70	34.3	B
River Ranch	I	50	33.4	2.1	35.5	0.39	39.4	B
Total	I		196.5	114.7	311.2	2.49	28.8	C

Miromar Outlets Corkscrew Road Access Evaluation
Arterial Level of Service

With Improvements
PM 150 sec

Arterial Level of Service: EB Corkscrew Road

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
River Ranch	I	50	32.0	6.1	38.1	0.35	33.2	C
ThreeOaks Pkwy	I	50	33.4	43.9	77.3	0.39	18.1	E
I75 SB On RAMP	I	50	50.8	34.7	85.5	0.70	29.7	C
I75NBLT	I	50	11.0	1.0	12.0	0.11	33.0	C
Miromar Directional	I	50	33.6	0.3	33.9	0.37	39.2	B
Stoneybrook	I	50	20.7	20.0	40.7	0.21	18.3	E
Pinewood Elem.	I	50	39.7	3.9	43.6	0.51	42.1	A
Total	I		221.2	109.9	331.1	2.64	28.7	C

Arterial Level of Service: WB Corkscrew Road

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Pinewood Elem.	I	50	20.2	4.7	24.9	0.20	29.1	C
Ben Hill Griffin Pkw	I	50	39.7	51.2	90.9	0.51	20.2	E
Miromar Directional	I	50	20.7	9.2	29.9	0.21	24.9	D
I75NBLT	I	50	33.6	26.2	59.8	0.37	22.2	D
I75 SB On RAMP	I	50	11.0	0.4	11.4	0.11	34.7	B
ThreeOaks Pkwy	I	50	50.8	24.3	75.1	0.70	33.8	C
River Ranch	I	50	33.4	2.1	35.5	0.39	39.4	B
Total	I		209.4	118.1	327.5	2.49	27.4	C

APPENDIX C
SIMTRAFFIC ANALYSIS SHEETS

14: Miramar Outlets & Ben Hill Griffin Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay (hr)	0.5	0.2	0.1	1.0	0.1	0.4	0.5	1.4	0.0	1.1	4.0	0.2
Delay / Veh (s)	24.7	28.9	10.6	31.0	26.3	6.2	23.2	8.3	2.1	24.3	15.1	9.1
Total Stops	62	16	39	101	9	153	61	176	14	119	392	27
Travel Dist (mi)	2.9	0.7	1.9	4.2	0.4	7.3	7.9	66.5	3.6	23.6	137.5	10.4
Travel Time (hr)	0.7	0.2	0.3	1.3	0.1	0.8	0.8	3.8	0.2	1.8	7.2	0.5
Avg Speed (mph)	4	4	7	3	4	9	10	17	21	15	20	27
Vehicles Entered	78	20	50	121	12	209	75	625	34	161	937	71
Vehicles Exited	78	20	50	120	12	207	74	628	34	160	948	71
Hourly Exit Rate	78	20	50	120	12	207	74	628	34	160	948	71
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0

14: Miramar Outlets & Ben Hill Griffin Performance by movement

Movement	All
Total Delay (hr)	9.5
Delay / Veh (s)	14.2
Total Stops	1169
Travel Dist (mi)	266.9
Travel Time (hr)	17.6
Avg Speed (mph)	16
Vehicles Entered	2393
Vehicles Exited	2402
Hourly Exit Rate	2402
Denied Entry Before	0
Denied Entry After	0

24: Corkscrew Road & Miromar Directional Performance by movement

Movement	EBL	EBT	WBT	WBR	SBR	All
Total Delay (hr)	18.3	3.0	1.5	0.1	15.2	37.9
Delay / Veh (s)	239.3	6.9	4.3	2.7	127.5	38.6
Total Stops	571	62	3	6	582	1224
Travel Dist (mi)	103.9	530.9	169.2	9.7	38.3	852.0
Travel Time (hr)	20.8	14.0	6.0	0.4	16.9	58.1
Avg Speed (mph)	5	38	28	23	3	15
Vehicles Entered	291	1559	1222	70	433	3575
Vehicles Exited	259	1537	1219	70	423	3508
Hourly Exit Rate	259	1537	1219	70	423	3508
Denied Entry Before	0	0	0	0	0	0
Denied Entry After	0	0	0	0	1	1

Miromar Outlets Corkscrew Road Access Evaluation
SimTraffic Performance Report

Without Improvements
PM 150 sec

501: Corkscrew Road & Pinewood Elem. Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Total Delay (hr)	0.8	0.0	0.1	1.0	0.4	0.0	2.3
Delay / Veh (s)	6.6	3.1	13.4	6.2	30.0	4.8	7.4
Total Stops	72	14	12	118	45	23	284
Travel Dist (mi)	137.2	16.2	3.9	109.6	7.2	3.6	277.7
Travel Time (hr)	3.6	0.4	0.2	3.4	0.7	0.2	8.5
Avg Speed (mph)	38	37	25	33	11	20	33
Vehicles Entered	422	50	20	559	53	26	1130
Vehicles Exited	423	50	21	562	53	26	1135
Hourly Exit Rate	423	50	21	562	53	26	1135
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

502: Corkscrew Road & Ben Hill Griffin Pkwy. Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay (hr)	24.2	2.7	0.2	1.4	8.4	1.1	1.8	0.9	0.2	1.1	1.4	4.8
Delay / Veh (s)	111.8	29.1	4.1	64.2	56.1	42.9	47.1	35.6	15.9	40.5	15.1	28.5
Total Stops	976	184	100	69	430	77	111	64	27	76	75	346
Travel Dist (mi)	106.9	45.1	30.0	4.8	36.1	6.2	8.3	5.6	2.6	11.9	27.8	74.2
Travel Time (hr)	27.4	3.6	1.2	1.5	9.2	1.3	2.1	1.1	0.3	1.5	2.1	7.6
Avg Speed (mph)	4	13	24	3	4	5	4	5	9	8	13	10
Vehicles Entered	787	329	219	75	538	88	136	91	43	97	334	610
Vehicles Exited	774	329	216	76	544	92	137	91	42	98	334	609
Hourly Exit Rate	774	329	216	76	544	92	137	91	42	98	334	609
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0

502: Corkscrew Road & Ben Hill Griffin Pkwy. Performance by movement

Movement	All
Total Delay (hr)	48.2
Delay / Veh (s)	51.9
Total Stops	2535
Travel Dist (mi)	359.5
Travel Time (hr)	59.1
Avg Speed (mph)	6
Vehicles Entered	3347
Vehicles Exited	3342
Hourly Exit Rate	3342
Denied Entry Before	0
Denied Entry After	0

Miromar Outlets Corkscrew Road Access Evaluation
Queuing and Blocking Report

Without Improvements
PM 150 sec

Intersection: 14: Miramar Outlets & Ben Hill Griffin

Movement	EB	EB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	TR	L	TR	L	T	T	R	L	T	T	R
Maximum Queue (ft)	131	67	190	86	119	120	155	30	136	261	282	51
Average Queue (ft)	43	32	70	52	42	59	70	11	73	120	124	17
95th Queue (ft)	95	63	131	81	91	111	127	33	122	212	222	41
Link Distance (ft)		188		175		511	511			770	770	
Upstream Blk Time (%)			0.00									
Queuing Penalty (veh)			0									
Storage Bay Dist (ft)	225		225		375			275	325			325
Storage Blk Time (%)			0.00									
Queuing Penalty (veh)			1									

Intersection: 24: Corkscrew Road & Miromar Directional

Movement	EB	EB	EB	WB	SB
Directions Served	L	T	T	R	R
Maximum Queue (ft)	875	1469	1129	52	480
Average Queue (ft)	512	75	38	6	421
95th Queue (ft)	849	515	372	28	572
Link Distance (ft)		1849	1849		465
Upstream Blk Time (%)					0.33
Queuing Penalty (veh)					0
Storage Bay Dist (ft)	850			300	
Storage Blk Time (%)	0.03				
Queuing Penalty (veh)	23				

Intersection: 501: Corkscrew Road & Pinewood Elem.

Movement	EB	EB	WB	WB	NB	NB
Directions Served	T	R	L	T	L	R
Maximum Queue (ft)	138	50	28	139	67	44
Average Queue (ft)	53	10	8	75	33	13
95th Queue (ft)	118	33	27	134	63	34
Link Distance (ft)	1674			1030		714
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)		450	400		275	
Storage Blk Time (%)						
Queuing Penalty (veh)						

Miromar Outlets Corkscrew Road Access Evaluation
Queuing and Blocking Report

Without Improvements
PM 150 sec

Intersection: 502: Corkscrew Road & Ben Hill Griffin Pkwy.

Movement	EB	EB	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	L	T	T	R	L	T	TR	L	TR	L	T
Maximum Queue (ft)	551	560	733	438	85	313	314	311	192	195	181	244
Average Queue (ft)	397	440	215	79	30	75	229	229	91	68	76	75
95th Queue (ft)	577	608	623	200	59	166	297	300	164	138	139	146
Link Distance (ft)			662	662			322	322		314		589
Upstream Blk Time (%)			0.03			0.00	0.00	0.00				
Queuing Penalty (veh)			17			0	0	0				
Storage Bay Dist (ft)	525	525			300	375			225		300	
Storage Blk Time (%)	0.02	0.07				0.00	0.00					
Queuing Penalty (veh)	4	11				0	0					

Intersection: 502: Corkscrew Road & Ben Hill Griffin Pkwy.

Movement	SB
Directions Served	R
Maximum Queue (ft)	475
Average Queue (ft)	300
95th Queue (ft)	445
Link Distance (ft)	589
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 503: Corkscrew Road & I75NBLT

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	T	T	T	T	T	L	L	R	R
Maximum Queue (ft)	436	135	137	382	383	307	304	268	222	165
Average Queue (ft)	241	54	56	286	279	229	198	138	133	81
95th Queue (ft)	393	108	106	437	372	308	290	227	201	143
Link Distance (ft)	523	523	523	282	282	282	1160	1160	1160	1160
Upstream Blk Time (%)				0.09	0.06	0.00				
Queuing Penalty (veh)				41	27	2				
Storage Bay Dist (ft)										
Storage Blk Time (%)										
Queuing Penalty (veh)										

14: Miramar Outlets & Ben Hill Griffin Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay (hr)	0.5	0.1	0.2	0.9	0.1	0.3	0.5	1.3	0.0	1.6	5.0	0.2
Delay / Veh (s)	25.2	21.6	12.2	27.4	20.4	5.2	25.4	8.5	3.0	31.5	17.8	8.4
Total Stops	52	11	53	106	9	150	67	153	18	151	500	39
Travel Dist (mi)	2.4	0.6	2.5	4.2	0.5	7.4	8.0	57.6	3.5	25.7	145.9	11.1
Travel Time (hr)	0.6	0.1	0.4	1.2	0.1	0.8	0.9	3.4	0.2	2.3	8.4	0.5
Avg Speed (mph)	4	5	7	4	5	10	9	17	20	13	18	27
Vehicles Entered	65	17	66	123	13	209	75	542	33	176	998	75
Vehicles Exited	66	17	67	124	13	210	75	541	33	177	1002	77
Hourly Exit Rate	66	17	67	124	13	210	75	541	33	177	1002	77
Denied Entry Before	0	0	0	0	0	0	0	0	0	1	2	1
Denied Entry After	0	0	0	0	0	0	0	0	0	2	0	1

14: Miramar Outlets & Ben Hill Griffin Performance by movement

Movement	All
Total Delay (hr)	10.6
Delay / Veh (s)	16.0
Total Stops	1309
Travel Dist (mi)	269.4
Travel Time (hr)	18.8
Avg Speed (mph)	15
Vehicles Entered	2392
Vehicles Exited	2402
Hourly Exit Rate	2402
Denied Entry Before	4
Denied Entry After	3

24: Corkscrew Road & Miromar Directional Performance by movement

Movement	EBL	EBT	WBT	WBR	SBR	All
Total Delay (hr)	4.5	1.4	4.7	0.1	3.3	14.0
Delay / Veh (s)	51.2	3.5	13.4	6.3	28.8	14.4
Total Stops	250	0	307	15	344	916
Travel Dist (mi)	95.2	410.4	252.8	13.9	37.7	810.0
Travel Time (hr)	6.9	9.9	11.1	0.6	5.1	33.6
Avg Speed (mph)	14	41	23	24	7	24
Vehicles Entered	317	1466	1256	69	419	3527
Vehicles Exited	315	1458	1250	69	415	3507
Hourly Exit Rate	315	1458	1250	69	415	3507
Denied Entry Before	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0

Miromar Outlets Corkscrew Road Access Evaluation
SimTraffic Performance Report

With Improvements
PM 150 sec

501: Corkscrew Road & Pinewood Elem. Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Total Delay (hr)	1.2	0.1	0.1	1.0	0.4	0.0	2.7
Delay / Veh (s)	10.0	3.3	15.0	6.7	31.8	3.0	9.0
Total Stops	131	24	17	120	39	18	349
Travel Dist (mi)	135.1	19.6	5.1	102.1	6.4	3.3	271.6
Travel Time (hr)	3.9	0.5	0.2	3.2	0.7	0.2	8.8
Avg Speed (mph)	34	37	24	32	11	22	32
Vehicles Entered	414	59	26	522	47	25	1093
Vehicles Exited	417	60	28	524	48	24	1101
Hourly Exit Rate	417	60	28	524	48	24	1101
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

502: Corkscrew Road & Ben Hill Griffin Pkwy. Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay (hr)	17.1	2.4	0.3	1.8	7.4	0.8	1.7	0.9	0.1	1.1	1.3	7.1
Delay / Veh (s)	88.3	26.1	4.6	79.2	53.3	41.5	46.8	34.8	11.3	41.0	14.4	37.2
Total Stops	723	190	93	74	397	61	107	55	33	73	73	470
Travel Dist (mi)	141.9	67.6	40.8	5.4	33.6	4.6	8.0	5.3	2.9	11.8	27.1	83.6
Travel Time (hr)	20.9	3.8	1.4	2.0	8.1	1.0	2.1	1.1	0.3	1.5	2.1	10.2
Avg Speed (mph)	7	18	28	3	4	5	4	5	11	8	13	8
Vehicles Entered	712	334	201	80	498	69	131	87	48	97	330	688
Vehicles Exited	679	332	200	81	500	70	134	89	47	98	330	688
Hourly Exit Rate	679	332	200	81	500	70	134	89	47	98	330	688
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0

502: Corkscrew Road & Ben Hill Griffin Pkwy. Performance by movement

Movement	All
Total Delay (hr)	42.0
Delay / Veh (s)	46.3
Total Stops	2349
Travel Dist (mi)	432.6
Travel Time (hr)	54.4
Avg Speed (mph)	8
Vehicles Entered	3275
Vehicles Exited	3248
Hourly Exit Rate	3248
Denied Entry Before	0
Denied Entry After	0

Miromar Outlets Corkscrew Road Access Evaluation
Queuing and Blocking Report

With Improvements
PM 150 sec

Intersection: 14: Miramar Outlets & Ben Hill Griffin

Movement	EB	EB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	TR	L	TR	L	T	T	R	L	T	T	R
Maximum Queue (ft)	133	111	190	107	109	135	160	31	214	263	264	31
Average Queue (ft)	39	32	63	51	54	51	67	14	86	145	134	21
95th Queue (ft)	88	73	125	94	101	102	116	38	167	236	228	40
Link Distance (ft)		188		175		511	511			770	770	
Upstream Blk Time (%)			0.00									
Queuing Penalty (veh)			0									
Storage Bay Dist (ft)	225		225		375			275	325			325
Storage Blk Time (%)			0.00									
Queuing Penalty (veh)			1									

Intersection: 24: Corkscrew Road & Miromar Directional

Movement	EB	EB	WB	WB	WB	SB
Directions Served	L	L	T	T	R	R
Maximum Queue (ft)	202	197	239	224	74	345
Average Queue (ft)	107	126	140	133	15	176
95th Queue (ft)	168	184	239	219	48	264
Link Distance (ft)			1000	1000		466
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	425	425			300	
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 501: Corkscrew Road & Pinewood Elem.

Movement	EB	EB	WB	WB	NB	NB
Directions Served	T	R	L	T	L	R
Maximum Queue (ft)	331	52	54	179	86	42
Average Queue (ft)	95	15	17	87	28	12
95th Queue (ft)	220	40	42	148	61	32
Link Distance (ft)	1674			1030		714
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)		450	400		275	
Storage Blk Time (%)						
Queuing Penalty (veh)						

Miromar Outlets Corkscrew Road Access Evaluation
Queuing and Blocking Report

With Improvements
PM 150 sec

Intersection: 502: Corkscrew Road & Ben Hill Griffin Pkwy.

Movement	EB	EB	EB	EB	EB	WB	WB	WB	B8	NB	NB	SB
Directions Served	L	L	T	T	R	L	T	TR	T	L	TR	L
Maximum Queue (ft)	643	649	191	148	65	313	390	385	32	153	236	138
Average Queue (ft)	284	355	73	71	30	84	211	220	1	89	66	65
95th Queue (ft)	450	530	146	135	56	178	302	312	10	155	158	111
Link Distance (ft)			1000	1000			322	322	496		314	
Upstream Blk Time (%)						0.00	0.01	0.01				
Queuing Penalty (veh)						0	4	4				
Storage Bay Dist (ft)	725	725			300	375				225		300
Storage Blk Time (%)						0.00	0.01				0.00	
Queuing Penalty (veh)						0	1				0	

Intersection: 502: Corkscrew Road & Ben Hill Griffin Pkwy.

Movement	SB	SB
Directions Served	T	R
Maximum Queue (ft)	627	636
Average Queue (ft)	116	394
95th Queue (ft)	368	569
Link Distance (ft)	589	589
Upstream Blk Time (%)	0.00	0.01
Queuing Penalty (veh)	2	3
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 503: Corkscrew Road & I75NBLT

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	T	T	T	T	T	L	L	R	R
Maximum Queue (ft)	483	112	95	383	390	383	454	270	182	160
Average Queue (ft)	260	61	42	310	282	253	207	145	129	91
95th Queue (ft)	406	101	88	450	372	353	325	227	173	155
Link Distance (ft)	523	523	523	276	276	276	1159	1159	1159	1159
Upstream Blk Time (%)				0.13	0.11	0.03				
Queuing Penalty (veh)				59	49	16				
Storage Bay Dist (ft)										
Storage Blk Time (%)										
Queuing Penalty (veh)										

APPENDIX 4

MIROMAR OUTLETS SIGNAL WARRANT STUDY
DATED JANUARY 31, 2008



DAVID PLUMMER & ASSOCIATES, INC.

TRANSPORTATION • CIVIL • STRUCTURAL • ENVIRONMENTAL

Memorandum

To: Earl Salley
From: Suresh Karre *SK*
Date: January 31, 2008
RE: **Miromar Outlets Signal Warrant Study, #07569**
cc: Jerry Schmoyer, Mark Gillis, David Plummer, Fort Myers Filing

Overview

Based on our January 17th meeting regarding the proposed Corkscrew Road access improvements, we have prepared a signal warrant analysis for the Corkscrew Road/Miromar Outlets Entrance intersection (hereafter referred to as the subject intersection).

Study Methodology

Of the warrants identified in the MUTCD, four warrants were determined to be applicable to the subject location. The applicable warrants include the following.

- Warrant 1A. Minimum Vehicular Volume
- Warrant 1B. Interruption of Continuous Flow
- Warrant 2. Four Hour Volume
- Warrant 3. Peak Hour Volumes

The above warrants were evaluated at the subject intersection based on the following procedures and conditions.

1. For the purpose of this analysis, the eastbound left-turn movement from Corkscrew Road into the Miromar Outlets was considered as the minor street approach. This is because there is no outbound left-turn movement from the Miromar Outlets onto Corkscrew Road at this intersection.
2. The only conflicting movement at the intersection for the eastbound left-turn is the westbound through movement on Corkscrew Road. Therefore, for the purpose of this analysis, the westbound through movement is considered as the major street approach.

3. Peak hour volumes at the subject intersection were derived from the traffic study titled Miromar Outlets Corkscrew Road Access Evaluation dated September 7, 2007. The existing traffic volumes used in that study (and shown in Appendix A) were provided by Lee County.
4. The existing peak hour volumes were expanded to other analysis period hours based on the shopping center hourly variation factors documented in the Institute of Transportation Engineers (ITE) Trip Generation, Seventh Edition (Shopping Centers, Land Use Code 820, Appendix B) and the hourly variation data for Corkscrew Road from Permanent Count Station (PCS) # 25 as documented in the 2006 Lee County Traffic Count Report, Appendix C.

The eastbound left-turn (minor street approach) volumes at the Corkscrew Road/Miromar Outlets Entrance are presented in Exhibit 1. The westbound through (major street approach) volumes on Corkscrew Road are presented in Exhibit 2.

The posted speed limit on Corkscrew Road is 45 mph. Based on this speed, Corkscrew Road meets the threshold of a major street speed exceeding 40 mph. Therefore, the 70% values listed in the MUTCD were applicable for this analysis.

Warrant Results

The four applicable traffic volume warrants were reviewed based on the eastbound left-turn volumes and the westbound through volumes on Corkscrew Road, Exhibit 3. The warrant results are summarized as follows. The signal warrant analyses are presented in Exhibits 4 to 6.

Signal Warrant Analyses

<u>Signal Warrant</u>	<u>Warrant Status</u>
1A. Minimum Vehicular Volume	Met
1B. Interruption of Continuous Traffic	Met
2. Four Hour Volume	Met
3. Peak Hour Volumes	Met

Conclusions

Based on the above analysis, it is concluded that the intersection of Corkscrew Road/Miromar Outlets Entrance satisfies Signal Warrants 1A, 1B, 2 and 3 as set forth in the MUTCD.

07569:Signal Warrant Memo_013008

EXHIBIT 1

MIROMAR OUTLETS SIGNAL WARRANT STUDY

MINOR STREET APPROACH VOLUMES
EXPANDED BASED ON ITE HOURLY DISTRIBUTION

<u>From</u>	<u>To</u>	<u>(1)</u> <u>ITE Distribution</u>		<u>(2)</u> <u>Eastbound Left Turn</u> <u>Traffic Volumes</u>	
		<u>Enter</u>	<u>% of Peak Hour</u>	<u>From Corkscrew Road</u>	
11:00 AM	12:00 PM	8.6	104%	308	
12:00 PM	1:00 PM	9.5	114%	340	
1:00 PM	2:00 PM	8.7	105%	311	
2:00 PM	3:00 PM	7.9	95%	283	
3:00 PM	4:00 PM	7.7	93%	276	
4:00 PM	5:00 PM	8.2	99%	293	
5:00 PM	6:00 PM	8.3	100%	297	
6:00 PM	7:00 PM	7.8	94%	279	
7:00 PM	8:00 PM	8.4	101%	301	
8:00 PM	9:00 PM	4.7	57%	168	
9:00 PM	10:00 PM	1.8	22%	64	

Footnotes:

- (1) Hourly variation factors for shopping centers (ITE LUC 820), ITE Trip Generation, Seventh Edition, page 1449.
- (2) Hourly variation as percentage of peak hour based on inbound traffic volumes.

EXHIBIT 2

MIROMAR OUTLETS SIGNAL WARRANT STUDY

MAJOR STREET APPROACH VOLUMES EXPANDED BASED ON COUNT STATION HOURLY DISTRIBUTION

<u>From</u>	<u>To</u>	<u>(1)</u> <u>Count Station</u>		<u>(2)</u> <u>Westbound Through</u>	
		<u>Distribution</u>	<u>% of Peak Hour</u>	<u>Traffic Volumes</u>	<u>on Corkscrew Road</u>
11:00 AM	12:00 PM	6.1	86%	1051	
12:00 PM	1:00 PM	6.5	92%	1120	
1:00 PM	2:00 PM	6.7	94%	1154	
2:00 PM	3:00 PM	6.9	97%	1189	
3:00 PM	4:00 PM	7.0	99%	1206	
4:00 PM	5:00 PM	7.1	100%	1223	
5:00 PM	6:00 PM	7.1	100%	1223	
6:00 PM	7:00 PM	7.0	99%	1206	
7:00 PM	8:00 PM	5.9	83%	1016	
8:00 PM	9:00 PM	4.2	59%	723	
9:00 PM	10:00 PM	3.1	44%	534	

Footnotes:

(1) Hourly variation for PCS #25 from the Lee County Traffic Count Report 2006, January 2007.

(2) Hourly variation as percentage of peak hour based on daily traffic volumes.

EXHIBIT 3

MIROMAR OUTLETS SIGNAL WARRANT STUDY

SUMMARY OF APPROACH VOLUMES

<u>From</u>	<u>To</u>	<u>Minor Street Volumes</u> ⁽¹⁾	<u>Major Street Volumes</u> ⁽²⁾
11:00 AM	12:00 PM	308	1051
12:00 PM	1:00 PM	340	1120
1:00 PM	2:00 PM	311	1154
2:00 PM	3:00 PM	283	1189
3:00 PM	4:00 PM	276	1206
4:00 PM	5:00 PM	293	1223
5:00 PM	6:00 PM	297	1223
6:00 PM	7:00 PM	279	1206
7:00 PM	8:00 PM	301	1016
8:00 PM	9:00 PM	168	723
9:00 PM	10:00 PM	64	534

Footnotes:

- (1) Estimated eastbound left-turn volumes at Corkscrew Road/Miromar Outlets intersection, Exhibit 1.
(2) Estimated estimated westbound through volumes at Corkscrew Road/Miromar Outlets intersection, Exhibit 2.

EXHIBIT 4

TRAFFIC SIGNAL WARRANT SUMMARY

City: _____ Engineer: David Plummer & Associates
 County: Lee Date: January 22, 2008
 Major Street: Westbound Corkscrew Road Lanes: 2 Critical Approach Speed: 45 mph
 Minor Street: Miromar Outlet Inbound Left Turns Lanes: 1

Volume Level Criteria

1. Is the critical speed of major street traffic > 70 km/h (40 mph)? ☒ Yes ☐ No
 2. Is the intersection in a built-up area of isolated community of <10,000 population? ☐ Yes ☒ No
- If Question 1 or 2 above is answered "yes", then use "70%" volume level ☒ 70% ☐ 100%

WARRANT 1 - EIGHT-HOUR VEHICULAR VOLUME

Warrant 1 is satisfied if Condition A or Condition B is "100%" satisfied.
 Warrant is also satisfied if both Condition A and Condition B are "80%" satisfied.

Applicable: ☒ Yes ☐ No
 Satisfied: ☒ Yes ☐ No

Condition A - Minimum Vehicular Volume

100% Satisfied: ☒ Yes ☐ No
 80% Satisfied: ☐ Yes ☐ No

(volumes in veh/hr)	Minimum Requirements (80% Shown in Brackets)				Eight Highest Hours							
					11 AM- 12 PM	12-1	1-2	2-3	3-4	4-5	5-6	7-8
	1		2 or more									
Volume Level	100%	70%	100%	70%								
Both Approaches on Major Street	500 (400)	350	600 (480)	420	1051	1120	1154	1189	1206	1223	1223	1016
Highest Approach on Minor Street	150 (120)	105	200 (160)	140	308	340	311	283	276	293	297	301

Record 8 highest hours and the corresponding volumes in boxes provided. Condition is 100% satisfied if the minimum volumes are met for eight hours. Condition is 80% satisfied if parenthetical volumes are met for eight hours.

Condition B - Interruption of Continuous Traffic

Condition B is intended for application where the traffic volume is so heavy that traffic on the minor street suffers excessive delay.

Applicable: ☒ Yes ☐ No
 Excessive Delay: ☒ Yes ☐ No
 100% Satisfied: ☒ Yes ☐ No
 80% Satisfied: ☐ Yes ☐ No

(volumes in veh/hr)	Minimum Requirements (80% Shown in Brackets)				Eight Highest Hours							
					11 AM- 12 PM	12-1	1-2	2-3	3-4	4-5	5-6	7-8
	1		2 or more									
Volume Level	100%	70%	100%	70%								
Both Approaches on Manor Street	750 (600)	525	900 (720)	630	1051	1120	1154	1189	1206	1223	1223	1016
Highest Approach on Minor Street	75 (60)	53	100 (80)	70	308	340	311	283	276	293	297	301

Record 8 highest hours and the corresponding volumes in boxes provided. Condition is 100% satisfied if the minimum volumes are met for eight hours. Condition is 80% satisfied if parenthetical volumes are met for eight hours.

EXHIBIT 5

TRAFFIC SIGNAL WARRANT SUMMARY

City: _____	Engineer: <u>David Plummer & Associates</u>
County: <u>Lee</u>	Date: <u>January 22, 2008</u>
Major Street: <u>Westbound Corkscrew Road</u>	Lanes: <u>2</u> Critical Approach Speed: <u>45 mph</u>
Minor Street: <u>Miromar Outlets Inbound Left Turn</u>	Lanes: <u>1</u>

Volume Level Criteria

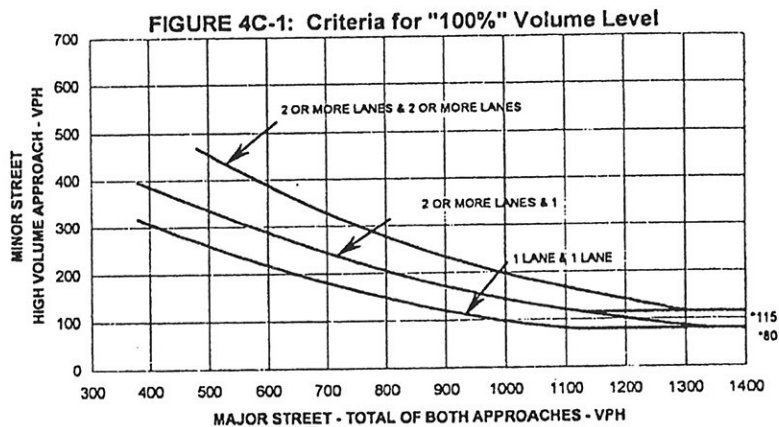
- | | | |
|--|---|--|
| 1. Is the critical speed of major street traffic > 70 km/h (40 mph)? | ☒ Yes | ☐ No |
| 2. Is the intersection in a built-up area of isolated community of <10,000 population? | ☐ Yes | ☒ No |
| If Question 1 or 2 above is answered "yes", then use "70%" volume level | | |
| | ☒ 70% | ☐ 100% |

WARRANT 2 - FOUR-HOUR VEHICULAR VOLUME

If all four points lie above the appropriate line, then the warrant is satisfied.

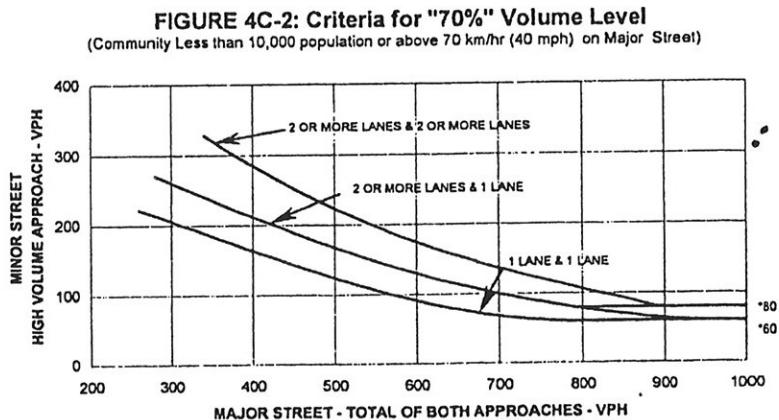
Applicable: ☒ Yes ☐ No
Satisfied: ☒ Yes ☐ No

Plot four volume combinations on the applicable figure below.



* Note: 115 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 80 vph applies as the lower threshold volume threshold for a minor street approach with one lane.

Four Highest Hours	Volumes	
	Major Street	Minor Street
11AM-12PM	1051	308
12-1	1120	340
1-2	1154	311
7-8	1016	301



* Note: 80 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 60 vph applies as the lower threshold volume threshold for a minor street approach with one lane.

EXHIBIT 6

TRAFFIC SIGNAL WARRANT SUMMARY

City: _____ Engineer: David Plummer & Associates
 County: Lee Date: January 22, 2008
 Major Street: Westbound Corkscrew Road Lanes: 2 Critical Approach Speed: 45 mph
 Minor Street: Miromar Outlets Inbound Left Turn Lanes: 1

Volume Level Criteria

1. Is the critical speed of major street traffic > 70 km/h (40 mph)? ☒ Yes ☐ No
 2. Is the intersection in a built-up area of isolated community of <10,000 population? ☐ Yes ☒ No
 If Question 1 or 2 above is answered "yes", then use "70%" volume level ☒ 70% ☐ 100%

WARRANT 3 - PEAK HOUR

If all three criteria are fulfilled or the plotted point lies above the appropriate line, then the warrant is satisfied.

Applicable: ☒ Yes ☐ No
 Satisfied: ☒ Yes ☐ No

Unusual condition justifying
 use of warrant:
Outlet Mall

Record hour when criteria are fulfilled
 and the corresponding delay or volume in
 boxes provided.

Peak Hour		
5-6	297	1223

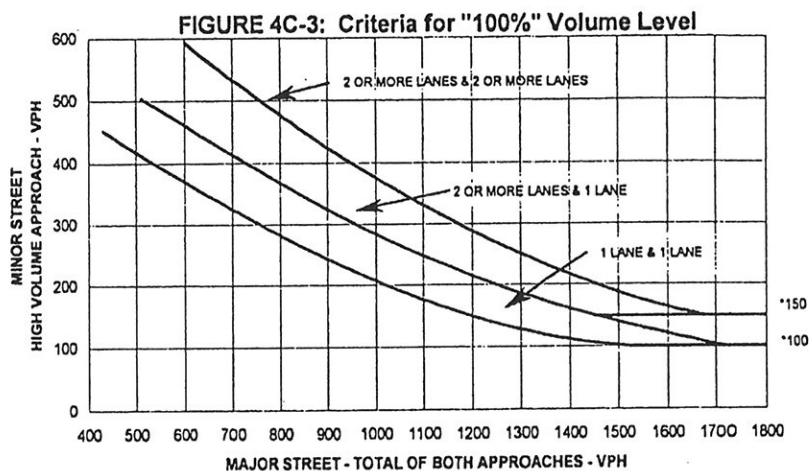
Criteria

1. Delay on Minor Approach *(vehicle-hours)		
Approach Lanes	1	2
Delay Criteria*	4.0	5.0
Delay*		
Fulfilled?: ☐ Yes ☐ No		

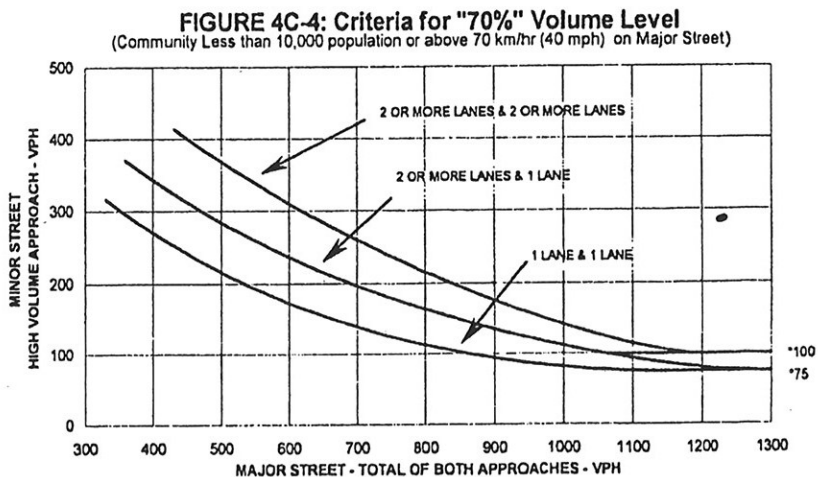
2. Volume on Minor Approach *(vehicles per hour)		
Approach Lanes	1	2
Volume Criteria*	100	150
Volume *		
Fulfilled?: ☐ Yes ☐ No		

3. Total Entering Volume *(vehicles per hour)		
No. of Approaches	3	4
Volume Criteria*	650	800
Volume *		
Fulfilled?: ☐ Yes ☐ No		

Plot volume combination on the applicable figure below.



* Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume threshold for a minor street approach with one lane.



* Note: 100 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 75 vph applies as the lower threshold volume threshold for a minor street approach with one lane.

APPENDIX A

MIROMAR OUTLETS CORKSCREW ROAD

ACCESS EVALUATION INTERSECTION VOLUMES

MIROMAR OUTLETS
CORKSCREW ROAD ACCESS EVALUATION

Project #07569

September 7, 2007

Prepared by:
DAVID PLUMMER & ASSOCIATES, INC.
1531 Hendry Street
Fort Myers, Florida 33901





MIROMAR OUTLETS
CORKSCREW ROAD ACCESS EVALUATION

EXISTING PEAK HOUR
TRAFFIC VOLUMES

07569/04/0807

2

Corkcrew Road		I-75 Southbound Ramps		I-75 Northbound Ramps		Design Center (RI/RO)		Miromar Outlets (DIR)		Ben Hill Griffin Parkway		Stonebrook Golf Blvd.	
1540	1562	864	1262	421	993	70	1542	424	368	847	939	215	476
320	300	1410	370	572	1612	70	70	1647	1223	105	510	138	45
146	1262	1410	1040	421	1612	1542	1542	1294	71	646	91	138	215
488	1262	1410	1040	421	1612	1542	1542	1294	71	646	91	138	215
1540	1562	864	1262	421	993	70	1542	424	368	847	939	215	476
320	300	1410	370	572	1612	70	1542	1647	1223	105	510	138	45
146	1262	1410	1040	421	1612	1542	1542	1294	71	646	91	138	215
488	1262	1410	1040	421	1612	1542	1542	1294	71	646	91	138	215

N.T.S.

APPENDIX B
ITE TRIP GENERATION 7TH EDITION
HOURLY TRAFFIC VARIATION
LUC 820 SHOPPING CENTER

Table 1 Hourly Variation in Shopping Center Traffic Less Than 100,000 Square Feet Gross Leasable Area				
Time	Average Weekday ^a		Average Saturday ^b	
	Percent of 24 Hour Entering Traffic	Percent of 24 Hour Exiting Traffic	Percent of 24 Hour Entering Traffic	Percent of 24 Hour Exiting Traffic
10-11 a.m.	7.6	6.5	6.8	5.8
11 a.m.-12 p.m.	7.6	8.4	8.8	8.9
12-1 p.m.	7.6	8.2	9.4	8.8
1-2 p.m.	6.9	7.5	10.0	10.1
2-3 p.m.	9.0	7.8	9.7	8.4
3-4 p.m.	9.6	9.5	10.3	9.6
4-5 p.m.	9.7	10.4	10.7	10.7
5-6 p.m.	10.3	11.0	9.4	8.7
6-7 p.m.	7.4	8.3	7.3	8.3
7-8 p.m.	5.4	5.3	5.0	5.7
8-9 p.m.	4.2	4.3	3.2	3.9
9-10 p.m.	1.9	1.8	2.0	3.3

^a Source numbers - 95, 124; based on four studies.

^b Source numbers - 95, 124; based on four studies.

Table 2 Hourly Variation in Shopping Center Traffic More Than 300,000 Square Feet Gross Leasable Area						
Time	Average Weekday ^a		Average Saturday ^b		Average Sunday ^c	
	Percent of 24 Hour Entering Traffic	Percent of 24 Hour Exiting Traffic	Percent of 24 Hour Entering Traffic	Percent of 24 Hour Exiting Traffic	Percent of 24 Hour Entering Traffic	Percent of 24 Hour Exiting Traffic
10-11 a.m.	7.5	3.7	8.3	4.3	3.5	1.7
11 a.m.-12 p.m.	8.6	5.9	10.9	6.9	9.4	3.5
12-1 p.m.	9.5	7.9	11.9	8.9	15.3	6.3
1-2 p.m.	8.7	8.2	12.5	10.4	17.3	11.0
2-3 p.m.	7.9	8.8	12.4	12.0	16.4	14.4
3-4 p.m.	7.7	8.9	11.2	12.9	13.8	16.2
4-5 p.m.	8.2	9.1	9.2	13.4	9.8	16.8
5-6 p.m.	8.3	9.5	5.2	12.7	5.5	15.7
6-7 p.m.	7.8	7.7	2.9	8.0	2.2	6.1
7-8 p.m.	8.4	7.0	1.9	2.1	1.3	1.9
8-9 p.m.	4.7	7.7	1.4	1.2	0.8	1.1
9-10 p.m.	1.8	9.1	2.9	0.8	0.6	0.9

^a Source numbers - 48, 73, 88, 124; based on seven studies.

^b Source numbers - 73, 88; based on three studies.

^c Source numbers - 88; based on two studies.

APPENDIX C

LEE COUNTY 2006 TRAFFIC COUNT REPORT

PERMANENT COUNT STATION DATA

**PERMANENT COUNT STATION 25
US-41 (SR 45) S OF HICKORY DR**

2006 AADT = 43300

K100 Factor - 0.091

Monthly ADT as a % of Annual ADT

January	106%
February	113%
March	116%
April	105%
May	95%
June	93%
July	85%
August	92%
September	93%
October	99%
November	107%
December	98%

Day of Week as a % of Annual ADT

Monday	104%
Tuesday	109%
Wednesday	110%
Thursday	112%
Friday	114%
Saturday	86%
Sunday	66%

Weekday Peak Flow Characteristics

Peak Flow between 7 a.m. and 9 a.m. 1) as a % of weekday traffic 2) directional Split (peak direction)	Non-Season	Season
Peak Flow between 4 p.m. and 6 p.m. 1) as a % of weekday traffic 2) directional Split (peak direction)	7.0% 55% Southbound	6.5% 54% Southbound
	7.1% 53% Northbound	7.1% 52% Northbound

**PERMANENT COUNT STATION 25
US-41 (SR 45) S OF HICKORY DR**

