TR TRANSPORTATION CONSULTANTS, INC.

TRAFFIC IMPACT STATEMENT

FOR

ESTERO CONTINUING CARE RETIREMENT COMMUNITY (CCRC)

(PROJECT NO. F1503.14)

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TRANSPORTATION CONSULTANTS, INC.

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I. INTRODUCTION

TR Transportation Consultants, Inc. has conducted a traffic impact statement to fulfill requirements set forth by the Lee County Department of Community Development for projects seeking zoning approval. The subject site is located on the north side of Corkscrew Road east of Sandy Lane in Estero, Florida. The approximate location of the subject site is illustrated on **Figure 1**.

The subject 21.36 acre site currently has two Master Concept Plans approved (one for the eastern portion and one for the western portion). These two Master Concept Plans will be vacated within the boundaries of the subject site and replaced by the Master Concept Plan and Schedule of Uses proposed as part of the Estero CCRC rezoning. The western approximately 9.9 acres is currently approved for a commercial development under Z-05-038 (Galleria at Corkscrew CPD). This CPD would permit the development of up to 100,000 square feet of commercial uses, including retail and office. The remaining approximately 11.4 acres within the boundaries of the Estero CCRC site is approved under Z-05-039 (Galleria at Corkscrew – Design Parc). This CPD would permit the development of up to 143,000 square feet of commercial uses, of which 60,000 square feet could be retail uses. The portion of the Design Parc CPD that is located east of Design Parc Lane (which is the northern extension of Corkscrew Palms Boulevard located on the south side of Corkscrew Road) is not part of this rezoning application and that parcel (Parcel 2B on the approved MCP) will remain in the Galleria at Corkscrew – Design Parc CPD. This site is currently developed with four office buildings containing approximately 41,500 square feet (DOS2005-00345).

The current request would rezone approximately 21.36 acres from CPD to RPD to permit the development of a 340 unit Continuing Care Retirement Community, or CCRC. To ensure a "worst case" in terms of trip generation is completed, the uses proposed for the site are based on the maximum permitted density of 128 traditional multi-family residential units. Additionally, the trip generation analysis was based on the development

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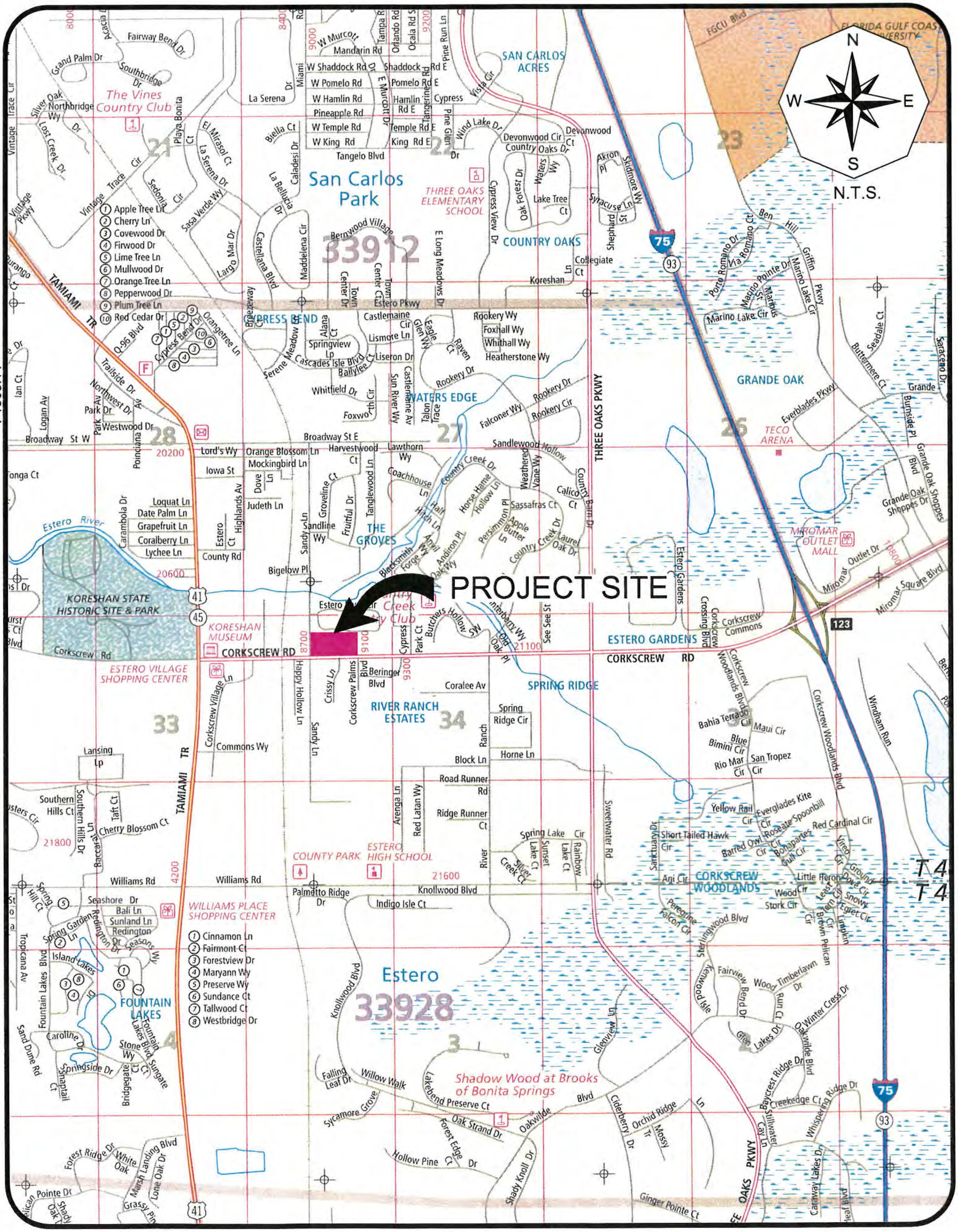

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PROJECT LOCATION MAP
ESTERO CCRC

Figure 1

of no more than 340 Independent Living Units or no more than a 340 bed Assisted Living Facility (ALF). Access to the subject site would be similar to what was approved in the previous CPD rezoning's with one access to Sandy Lane, a right-in/right-out access to Corkscrew Road and access to Corkscrew Road via Design Parc Lane, which is now constructed.

This report examines the impact of the development on the surrounding roadways and intersections. Trip generation and assignments to the site access drives will be completed and analysis conducted to determine the impacts of the development on the surrounding streets and intersections.

II. EXISTING CONDITIONS

The subject site is currently vacant. To the east, Design Parc Lane is constructed to serve the existing commercial office uses to the east. The subject site is bordered by Corkscrew Road to the south and Sandy Lane to the west. Single family residential homes border the site to the north.

Corkscrew Road is an east/west four-lane divided arterial roadway that borders the subject site to the south. Corkscrew Road adjacent to the site has a posted speed limit of 45 mph and is under the jurisdiction of the Lee County Department of Transportation.

Sandy Lane is a two lane undivided collector road north of Corkscrew Road. Sandy Lane is under the jurisdiction of the Lee County Department of Transportation and has a posted speed limit of 30 mph adjacent to the site.

III. PROPOSED DEVELOPMENT

The proposed Master Concept Plan indicates the site would be rezoned from CPD to RPD based on a density of 128 multi-family dwelling units. In order to analyze all of the potential development scenarios, the trip generation was computed based on 128 multi-family dwelling units, or up to 340 Independent Living Units (Senior Adult Housing – Attached), or up to a 340 bed Assisted Living Facility (ALF) or up to a 340 unit Continuing Care Retirement Community (CCRC). The retail and commercial uses currently approved on the subject site through the two separate rezoning actions would be eliminated from the site. **Table 1** summarizes the various land use alternatives that could be developed based on the permitted conversion rate within the Land Development Code and what is present on the Master Concept Plan.

Table 1
Land Uses
Estero CCRC

Land Use	Size
CCRC (LUC 255)	340 Units
Multi-Family Residential (LUC 230)	128 Units
Independent Living Units (Attached) (LUC 252)	340 Units
Assisted Living Facility (LUC 254)	340 Beds

The access to the subject site will be provided to Sandy Lane via a full access, to Corkscrew Road via a right-in/right-out access and to Design Parc Lane, which intersects with Corkscrew Road at a full median opening.

IV. TRIP GENERATION

The trip generation for the proposed development was determined by referencing the Institute of Transportation Engineer's (ITE) report, titled ***Trip Generation***, 9th Edition. Land Use Code 255 (Continuing Care Retirement Community) was utilized for the trip generation purposes of the CCRC use, Land Use Code 230 (Residential Condominium/Townhouse) was utilized for the trip generation purposes of the multi-family residential units, Land Use Code 252 (Senior Adult Housing – Attached) was utilized for the Independent Living units and Land Use Code 254 (Assisted Living) was utilized for the trip generation purposes of the assisted living units. The equations for these land uses are contained in the Appendix of this report for reference.

Table 2 indicates the anticipated weekday A.M. and P.M. peak hour trip generation of the subject site. The anticipated daily trip generation of the subject site is also indicated within Table 2.

Table 3
Trip Generation
Estero CCRC

Land Use	Weekday A.M. Peak Hour			Weekday P.M. Peak Hour			Daily
	In	Out	Total	In	Out	Total	2-way
CCRC (340 Units)	41	21	62	26	41	67	1,399
Multi-Family (128 Units)	11	52	63	50	24	74	797
Independent Living (340 Units)	23	45	68	45	38	83	1,034
Assisted Living (340 Beds)	31	17	48	33	42	75	564

Since the Level of Service impacts are evaluated based on the peak hour, peak direction volumes, the trip generation for the use that generated the greatest directional volume (in or out) during the weekday P.M. peak hour was utilized for the remainder of this analysis

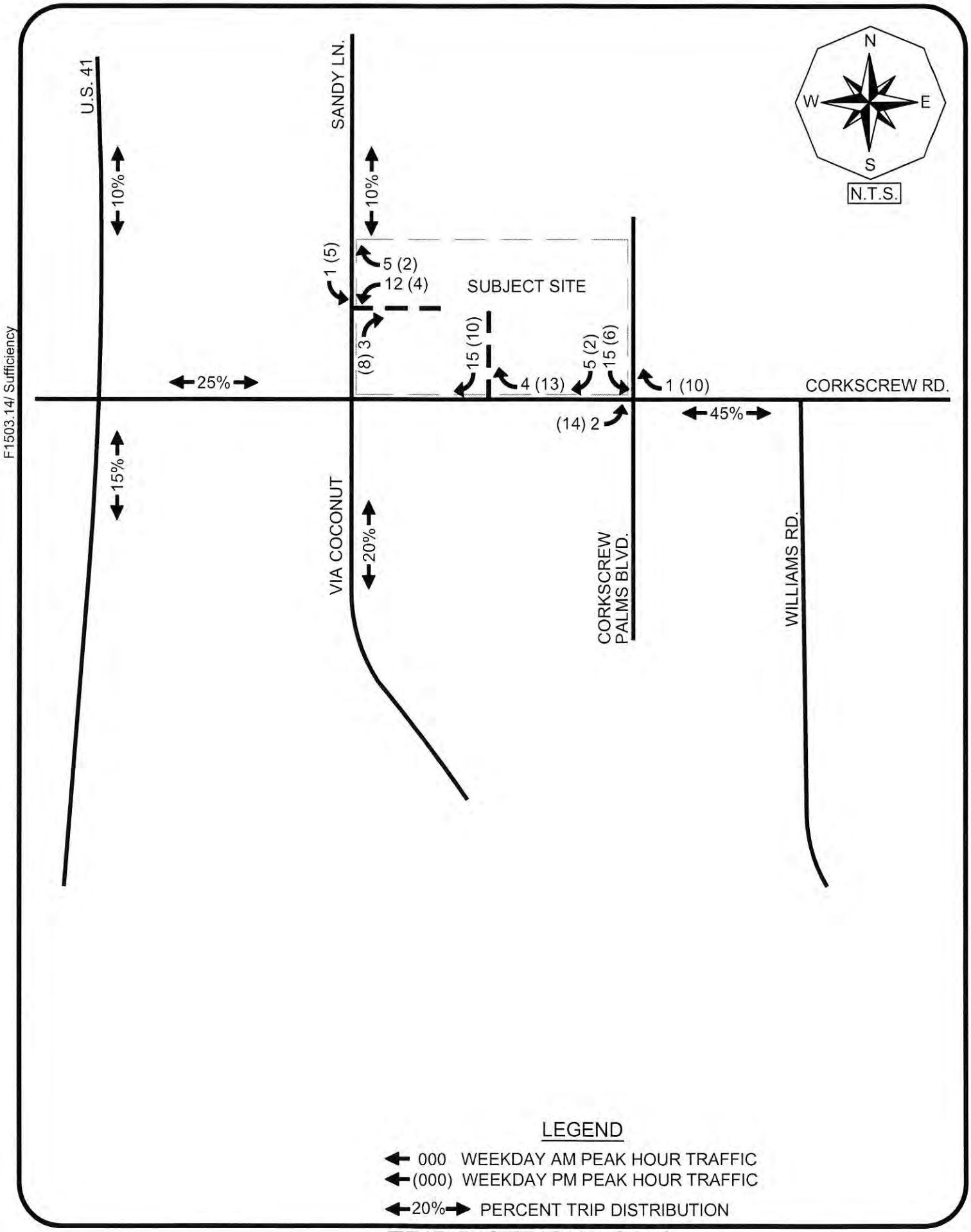
to ensure a "worst case" in terms of trip generation and impacts to the adjacent roadway network were analyzed as part of this zoning application.

For comparison purposes, the peak trip generation shown Table 3 was compared to the trip generation of the uses as currently approved under the two previously mentioned zoning resolutions. Based on zoning resolution Z-05-038, a total of 70,000 square feet of retail uses are approved and 30,000 square feet of office uses are approved. Under Z-05-039, a total of 60,000 square feet of retail uses are approved and 83,000 square feet of office uses are approved. This CPD (Z-05-039) currently has approximately 41,500 square feet of office uses constructed east of Design Parc Lane. Therefore, the 21.36 acres that is subject to this rezoning could be developed with up to 130,000 square feet of retail uses and 71,500 square feet of office uses. The trip generation comparison between these uses and the CCRC use is included in the Appendix of this report for reference. Based on the comparison in the Appendix, the modification of the zoning from a CPD to an RPD with the proposed use will represent an approximate ninety percent (90%) decrease in the weekday P.M. peak hour trip generation from the subject 21.36 acre parcel.

V. TRIP DISTRIBUTION

The trips the proposed development is anticipated to generate were assigned to the site access drives and the surrounding roadway network. The trips anticipated to be added to the surrounding roadway network were assigned based upon the routes drivers are anticipated to utilize to approach the subject site. **Figure 2** illustrates the percent project traffic distribution as well as the assignment of the project trips to the site access drives.

In order to determine which roadway segments surrounding the site may be significantly impacted as outlined in the Lee County Traffic Impact Statement Guidelines, **Table 1A**, in the Appendix, was created. This table indicates which roadway links will accommodate greater than 10% of the Peak Hour Level of Service "C" volumes, as



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TRIP DISTRIBUTION & SITE TRAFFIC ASSIGNMENT ESTERO CCRC

Figure 2

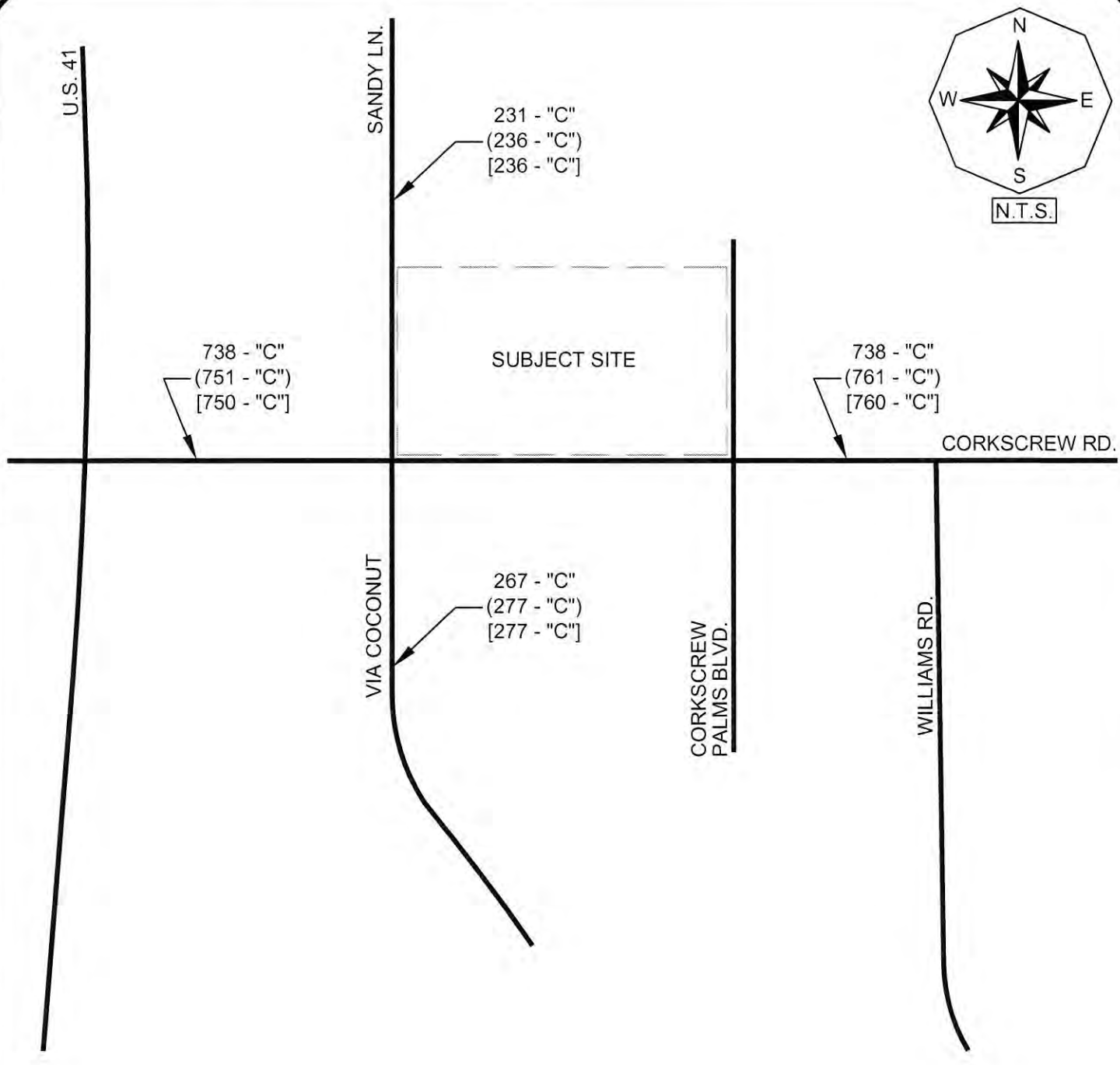
defined by the Lee County Generalized Service Volumes, as provided by the Lee County Department of Transportation. From Table 1A, the proposed development is not anticipated to significantly impact any of the roadway links analyzed.

VI. FUTURE TRAFFIC CONDITIONS

A horizon year Level of Service analysis was conducted for the year 2020. Based on this horizon year, a growth rate was applied to the existing traffic conditions for all roadway links and intersections that could be significantly impacted by the proposed development. The growth rates were calculated from historical traffic count data for the past ten years as contained in the 2014 Lee County Traffic Count Report. Since no data is available in the traffic count report for Sandy Lane and Via Coconut, the growth rate for Corkscrew Road was utilized for these two roadways.

Based on the project distribution illustrated on Figure 2, the link data was analyzed for the year 2020 without the development and year 2020 with the development. The base year traffic volumes were obtained from the 2013 Lee County Concurrency Report. **Table 2A**, contained in the Appendix of the report, outlines the methodology used in determining the growth rate utilized for each roadway segment.

Figure 3 indicates the year 2020 peak hour traffic volumes and Level of Service for the various roadway links within the study area. Noted on Figure 3 is the peak hour volume and Level of Service of each link should no development occur on the subject site and the Peak Hour volume and Level of Service for the weekday A.M. and P.M. peak hours with the development traffic added to the roadways. These values are derived from Table 2A contained in the Appendix.



F1503.14/ Sufficiency

LEGEND

XXX - "C" 2020 PEAK SEASON PEAK HOUR
PEAK DIRECTION BACKGROUND TRAFFIC
AND LEVEL OF SERVICE DESIGNATION

(XXX -"C") 2020 PEAK SEASON PEAK HOUR
PEAK DIRECTION BACKGROUND
TRAFFIC PLUS AM PROJECT TRAFFIC
AND LEVEL OF SERVICE DESIGNATION

[XXX -"C"] 2020 PEAK SEASON PEAK HOUR
PEAK DIRECTION BACKGROUND
TRAFFIC PLUS PM PROJECT TRAFFIC
AND LEVEL OF SERVICE DESIGNATION

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PROJECTED 2020 LEVEL OF SERVICE ANALYSIS
ESTERO CCRC

Figure 3

VII. PROJECTED LEVEL OF SERVICE AND IMPROVEMENTS

From Table 1A, none of the roadway links analyzed are shown to experience a significant impact as a result of the proposed rezoning. From Table 2A, all roadway links analyzed were shown to operate at an acceptable Level of Service condition in 2020 both with and without the proposed re-zoning request. All roadway links analyzed were shown to operate at a Level of Service "C" in 2020 both with and without the proposed development. Therefore, no roadway capacity improvements are required in order to support the proposed re-zoning request. The rezoning request is consistent with the Policies outlined in the Lee County Comprehensive Plan and the Land Development Code with respect to impacts on the area roadway infrastructure.

VIII. CONCLUSION

The proposed re-zoning of the subject 21.36 acre site to accommodate the Estero CCRC uses, site located on the north side of Corkscrew Road at its intersection with Sandy Lane in Estero, Florida will not cause the Level of Service on any roadway links in the study area to decrease below the recommended minimum standards. The existing roadway network can accommodate the additional new vehicle trips the development is anticipated to generate. A trip generation comparison between the approved uses and the proposed CCRC use indicates that the potential trip generation of the subject site will be reduced by approximately 90% during the weekday P.M. peak hour.

Additional site specific turn lane improvements at the site access drive intersections with the public roadway network will be evaluated at the time of Local Development Order approval.

APPENDIX

TABLES 1A & 2A

TABLE 1A
PEAK DIRECTION PROJECT TRAFFIC VS. LOS C LINK VOLUMES
ESTERO CCRC

Revised 6-29-2015

TOTAL AM PEAK HOUR PROJECT TRAFFIC =	63 VPH	IN=	11	OUT=	52
TOTAL PM PEAK HOUR PROJECT TRAFFIC =	74 VPH	IN=	50	OUT=	24

ROADWAY	SEGMENT	ROADWAY CLASS	LOS A VOLUME	LOS B VOLUME	LOS C VOLUME	LOS D VOLUME	LOS E VOLUME	PROJECT TRAFFIC DISTRIBUTION	NEW PROJ TRAFFIC AM PEAK	NEW PROJ TRAFFIC PM PEAK	PROJ/ LOS C
Corkscrew Rd	E. of US 41	4LD	0	260	1,840	1,960	1,960	25%	13	13	0.71%
	E. of Corkcrew Palms Blvd.	4LD	0	260	1,840	1,960	1,960	45%	23	23	1.27%
Via Cocount	S. of Corkscrew Rd.	4LD	0	0	780	1,530	1,530	20%	10	10	1.33%
Sandy Lane	N. of Corkscrew Rd.	2LN	0	0	310	670	740	10%	5	5	1.68%

The Level of Service thresholds for all roadways were obtained from the Lee County Generalized Service Volume Table

- Denotes a Significantly Impacted roadway segment

TABLE 2A
ESTERO CCRC
5-YEAR LEVEL OF SERVICE ANALYSIS

Revised 6-29-2015

TOTAL AM PEAK HOUR PROJECT TRAFFIC = 63 VPH IN= 11 OUT= 52

TOTAL PM PEAK HOUR PROJECT TRAFFIC = 74 VPH IN= 50 OUT= 24

ROADWAY	SEGMENT	SITE/ STATION	BASE YR ADT	2014 ADT	YRS OF GROWTH	ANNUAL GROWTH RATE	2013 PK HR PK SEASON PEAK DIR.	2020 PK HR PK SEASON PEAK DIRECTION VOLUME	LOS	PROJECT TRAFFIC DISTRIBUTION	AM PROJ TRAFFIC	PM PROJ TRAFFIC	2020 BCKGRND + AM PROJ VOLUME	LOS	2020 BCKGRND + PM PROJ VOLUME	LOS
Corkscrew Rd	E. of US 41	247	13,900	14,300	9	1.00%	688	738	C	25%	13	13	751	C	750	C
	E. of Corkscrew Palms Blvd.	247	13,900	14,300	9	1.00%	688	738	C	45%	23	23	761	C	760	C
Via Cocount	S. of Corkscrew Rd.	No Data Available - Corkscrew Road AGR Used				1.00%	249	267	C	20%	10	10	277	C	277	C
Sandy Lane	N. of Corkscrew Rd.	No Data Available - Corkscrew Road AGR Used				1.00%	215	231	C	10%	5	5	236	C	236	C

[1]The 2013 peak hour, peak season, peak direction traffic volumes were taken from the 2014 Lee County Concurrency Report.

For Sandy Lane, 2013 Peak Hour Peak Directional Volume taken from turning movement count conducted in Aug. 2014 factored by Peak Seasone adjustment factor

2014 LEE COUNTY CONCURRENCY REPORT

			ROAD	PERFORMANCE		2013 100th HIGHEST HR		EST 2014 100th HIGHEST HR		FORECAST FUTURE VOL			
				LOS	CAPACITY	LOS	VOLUME	LOS	VOLUME	LOS	VOLUME		
BRANTLEY RD*	SUMMERLIN RD	US 41	2LU	E	860	C	116	C	116	C	126		03300
BRIARCLIFF DR*	US 41	TRIPLE CROWN CT	2LU	E	860	C	201	C	203	C	225		03400
BROADWAY (ALVA)*	PALM BEACH BL (SR 80)	NORTH RIVER RD	2LU	E	860	C	181	C	181	C	181		03500
BROADWAY (ESTERO)	LOGAN AVE	US 41	2LU	E	860	C	239	C	239	C	251		03600
BUCKINGHAM RD	IMMOKALEE RD (SR 82)	GUNNERY RD	2LU	E	990	C	275	C	277	C	281		03700
BUCKINGHAM RD	GUNNERY RD	ORANGE RIVER BL	2LU	E	990	C	357	C	358	C	358		03730
BUCKINGHAM RD	ORANGE RIVER BL	PALM BEACH BL (SR 80)	2LU	E	990	D	470	D	471	F	1,174		03800
BURNT STORE RD	PINE ISLAND RD (SR 78)	DIPLOMAT PKWY	2LU	E	1,100	C	676	C	676	D	702	4 Ln construction in FY's 16/17 & 18/19	03900
BURNT STORE RD	DIPLOMAT PKWY	CHARLOTTE COUNTY LINE	2LU	E	1,100	B	299	B	299	C	386	4 Ln construction up to Van Buren in FY 14/15	04000
BUS 41 (SR 739)	FORT MYERS CITY LIMIT	PONDELLA RD	6LD	D	2,740	C	1,863	C	1,863	C	1,863		04200
BUS 41 (SR 739)	PONDELLA RD	PINE ISLAND RD (SR 78)	6LD	D	2,740	B	1,287	B	1,291	B	1,303		04300
BUS 41 (SR 739)	PINE ISLAND RD (SR 78)	LITTLETON RD	4LD	D	1,820	C	887	C	887	C	938		04400
BUS 41 (SR 739)	LITTLETON RD	US 41	2LU	D	1,080	A	413	A	413	A	470	4 Ln currently under construction by FDOT	04500
CAPE CORAL BR RD	DEL PRADO BL	McGREGOR BL	4L	E	4,000	C	2,387	C	2,387	C	2,387		04600
CAPTIVA RD*	BLIND PASS	SOUTH SEAS PLANTATION	2LU	E	860	C	265	C	267	C	267	Constrained v/c = 0.31	04700
CEMETERY RD*	BUCKINGHAM RD	HIGGINS AVE	2LU	E	860	C	257	C	258	C	258		04800
CHAMBERLIN PKWY	AIRPORT ENT	DANIELS PKWY	4LD	E	1,790	C	107	C	107	C	152	Port Authority maintained	04900
COCONUT RD	SPRING CREEK RD	US 41	2LN	E	860	C	366	C	366	C	531	No count since 2007	05000
COCONUT RD	US 41	THREE OAKS PKWY	4LD	E	1,790	C	587	C	588	C	610		05030
COLLEGE PKWY*	McGREGOR BL	WINKLER RD	6LD	E	2,980	D	1,831	D	1,831	D	1,831		05100
COLLEGE PKWY	WINKLER RD	WHISKEY CREEK DR	6LD	E	2,980	D	1,826	D	1,828	D	1,865		05200
COLLEGE PKWY*	WHISKEY CREEK DR	SUMMERLIN RD	6LD	E	2,980	D	2,371	D	2,371	D	2,394		05300
COLLEGE PKWY	SUMMERLIN RD	US 41	6LD	E	2,980	D	1,584	D	1,622	D	1,645		05400
COLONIAL BL*	McGREGOR BL	SUMMERLIN RD	6LD	E	2,780	D	2,628	D	2,628	D	2,628		05500
COLONIAL BL	SUMMERLIN RD	US 41	6LD	E	2,780	F	2,804	F	2,804	F	2,804		05600
COLONIAL BL (SR 884)	US 41	FOWLER ST	6LD	E	2,780	F	2,952	F	2,952	F	2,952		05700
COLONIAL BL (SR 884)	FOWLER ST	METRO PKWY	6LD	E	2,780	F	3,645	F	3,645	F	3,645	N. Airport Rd. Ext. in FY 14/15	05800
COLONIAL BL (SR 884)	METRO PKWY	WINKLER AVE	6LD	E	3,220	C	3,066	C	3,066	C	3,068		05900
COLONIAL BL (SR 884)	WINKLER AVE	SIX MILE CYPRESS PKWY	6LD	E	3,220	F	3,713	F	3,713	F	3,713		06000
COLONIAL BL (SR 884)	SIX MILE CYPRESS PKWY	I-75	6LD	E	3,220	F	4,130	F	4,130	F	4,130		06100
COLONIAL BL	I-75	IMMOKALEE RD (SR 82)	6LD	D	3,240	B	1,876	B	1,876	B	1,876		06200
COLUMBUS BL*	SR 82	MILWAUKEE BL	2LU	E	860	C	84	C	88	C	88		06300
CONSTITUTION BL*	US 41	CONSTITUTION CIR	2LU	E	860	C	216	C	217	C	228		06400
CORBETT RD*	PINE ISLAND RD	LITTLETON RD	2LU	E	860	C	22	C	22	C	22		06500
CORKSCREW RD	US 41	THREE OAKS PKWY	4LD	E	1,900	C	688	C	688	C	953		06600
CORKSCREW RD	THREE OAKS PKWY	I-75	4LD	E	1,900	C	1,484	C	1,520	F	2,227		06700

			ROAD	PERFORMANCE		2013 100th HIGHEST HR		EST 2014 100th HIGHEST HR		FORECAST FUTURE VOL			
				LOS	CAPACITY	LOS	VOLUME	LOS	VOLUME	LOS	VOLUME		
THREE OAKS PKWY	CORKSCREW RD	SAN CARLOS BL	4LD	E	1,940	B	916	B	935	B	1,156		26600
THREE OAKS PKWY	SAN CARLOS BL	ALICO RD	4LD	E	1,940	A	631	A	631	B	803		26700
TICE ST*	PALM BEACH BL (SR 80)	ORTIZ AVE	2LU	E	860	C	83	C	83	C	88		26800
TICE ST*	ORTIZ AVE	STALEY RD	2LU	E	860	C	130	C	136	D	641		26900
TREELINE AVE	TERMINAL ACCESS RD	DANIELS PKWY	4LD	E	1,960	B	1,299	B	1,299	B	1,479	I-75 Connector under construction	27000
TREELINE AVE	DANIELS PKWY	ARBORWOOD RD	4LD	E	1,960	A	563	A	563	A	618		27030
TREELINE AVE	ARBORWOOD RD	COLONIAL BL	4LD	E	1,960	A	563	A	563	A	563		27070
VETERANS MEM PKWY	SR78	SURFSIDE BL	4LD	D	2,080	A	660	A	660	A	660		27200
VETERANS MEM PKWY	SURFSIDE BL	CHIQUITA BL	4LD	E	2,080	A	664	A	664	A	664		27250
VETERANS MEM PKWY*	CHIQUITA BL	SKYLINE DR	4LD	D	2,080	A	1,810	A	1,810	A	1,810		27300
VETERANS MEM PKWY	SKYLINE DR	SANTA BARBARA BL	6LD	D	3,120	A	1,822	A	1,822	A	1,852		27400
VETERANS MEM PKWY	SANTA BARBARA	COUNTRY CLUB BL	6LD	D	3,120	A	2,528	A	2,528	A	2,528		27500
VETERANS MEM PKWY	COUNTRY CLUB BL	MIDPOINT BR TOLL PLAZA	6LD	D	3,120	A	2,776	A	2,776	A	2,776		27600
VETERANS MEM PKWY	MIDPOINT BR TOLL PLAZA	McGREGOR BL	4LB	D	3,440	C	2,390	C	2,390	C	2,390		27700
VIA COCONUT PT	SOUTH END	CORKSCREW RD	4LD	E	1,790	C	249	C	249	C	249		27720
WHISKEY CREEK DR*	COLLEGE PKWY	SAUTERN DR	2LD	E	860	C	320	C	320	C	333		27900
WHISKEY CREEK DR*	SAUTERN DR	McGREGOR BL	2LD	E	860	C	320	C	320	C	320		28000
WILLIAMS RD	US 41	RIVER RANCH RD	2LU	E	860	C	202	C	202	C	242		28100
WILLIAMS AVE	LEE BL	W 6th ST	2LN	E	860	C	436	C	440	C	492		28200
WINKLER RD*	STOCKBRIDGE	SUMMERLIN RD	2LN	E	860	C	444	C	461	D	625		28300
WINKLER RD	SUMMERLIN RD	GLADIOLUS DR	4LD	E	1,520	D	335	D	336	D	336		28400
WINKLER RD*	GLADIOLUS DR	BRANDYWINE CIR	2LN	E	920	B	593	B	593	B	600		28500
WINKLER RD*	BRANDYWINE CIR	CYPRESS LAKE DR	2LN	E	920	B	675	B	675	B	675		28600
WINKLER RD	CYPRESS LAKE DR	COLLEGE PKWY	4LD	E	1,800	C	683	C	683	D	833		28700
WINKLER RD*	COLLEGE PKWY	McGREGOR BL	2LN	E	840	B	347	B	350	B	360		28800
WOODLAND BL*	US 41	AUSTIN ST	2LU	E	860	C	266	C	266	C	266		28900
W 6th ST	WILLIAMS AVE	JOEL BL	2LU	E	860	C	153	C	153	C	153		29000
W 12th ST*	GUNNERY RD	SUNSHINE BL	2LU	E	860	C	75	C	77	C	77		29100
W 12th ST*	SUNSHINE BL	WILLIAMS AVE	2LU	E	860	C	75	C	76	C	165		29200
W 12th ST*	WILLIAMS AVE	JOEL BL	2LU	E	860	C	91	C	92	C	92		29300
W 14th ST*	SUNSHINE BL	RICHMOND AVE	2LU	E	860	C	47	C	48	C	48		29400
US 41	COLLIER COUNTY LINE	BONITA BEACH RD	6LD	E	2,740	B	1,959	B	1,959	B	1,959		29500
US 41	BONITA BEACH RD	WEST TERRY ST	6LD	E	3,020	B	2,250	B	2,250	B	2,250		29600
US 41	WEST TERRY ST	OLD 41	6LD	E	3,020	B	2,058	B	2,058	B	2,058		29700
US 41	OLD 41	CORKSCREW RD	6LD	E	3,020	B	2,473	B	2,509	B	2,833		29800
US 41	CORKSCREW RD	SANIBEL BL	6LD	E	3,000	B	1,804	B	1,817	B	1,988		29900
US 41	SANIBEL BL	ALICO RD	6LD	E	3,000	B	2,043	B	2,053	B	2,253		30000
US 41	ALICO RD	ISLAND PARK RD	6LD	E	3,000	B	2,587	B	2,588	B	2,769		30100

LEE COUNTY GENERALIZED SPECIFIC SERVICE VOLUME TABLE

Lee County
Generalized Peak Hour Directional Service Volumes
Urbanized Areas

Sept. 2013 c:\input4

Uninterrupted Flow Highway

Level of Service

Lane	Divided	A	B	C	D	E
1	Undivided	120	420	840	1,190	1,640
2	Divided	1,060	1,810	2,560	3,240	3,590
3	Divided	1,600	2,720	3,840	4,860	5,380

Arterials

Class I (40 mph or higher posted speed limit)

Level of Service

Lane	Divided	A	B	C	D	E
1	Undivided	*	140	800	860	860
2	Divided	*	260	1,840	1,960	1,960
3	Divided	*	410	2,840	2,940	2,940
4	Divided	*	550	3,840	3,940	3,940

Class II (35 mph or slower posted speed limit)

Level of Service

Lane	Divided	A	B	C	D	E
1	Undivided	*	*	330	710	780
2	Divided	*	*	710	1,590	1,660
3	Divided	*	*	1,150	2,450	2,500
4	Divided	*	*	1,580	3,310	3,340

Controlled Access Facilities

Level of Service

Lane	Divided	A	B	C	D	E
1	Undivided	*	160	880	940	940
2	Divided	*	270	1,970	2,100	2,100
3	Divided	*	430	3,050	3,180	3,180

Collectors

Level of Service

Lane	Divided	A	B	C	D	E
1	Undivided	*	*	310	670	740
1	Divided	*	*	330	710	780
2	Undivided	*	*	740	1,460	1,460
2	Divided	*	*	780	1,530	1,530

Note: the service volumes for I-75 (freeway), bicycle mode, pedestrian mode, and bus mode should be from FDOT's most current version of LOS Handbook.

TRAFFIC DATA FOR

CORKSCREW ROAD

2014 LEE COUNTY TRAFFIC COUNT REPORT

STREET	LOCATION	Sta-tion #	Daily Traffic Volume (AADT) 2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	PCS
COLONIAL BLVD	W OF I - 75	242	65700	71500	70500	64500	61100	61600					14
COLONIAL BLVD	W OF IMMOKALEE RD	246	34900	35400	39500	31700	35300				35400	39500	22
CORBETT RD	N OF PINE ISLAND RD	508	600	900	500	600	500						49
CORKSCREW RD	E OF US 41	247	13900	17700	19200	15400	13800	13700	18600		14300		15
CORKSCREW RD	E OF VIA COCONUT POINTE	260						16900					15
CORKSCREW RD	W OF I - 75	15	29400	U/C	U/C	32700	27300	23600	27200	29500	28800	30600	
CORKSCREW RD	E OF I - 75	249	10100	13500	14900	12900	10900	10400			13000		15
CORKSCREW RD	W OF ALICO RD	248									3800		
CORKSCREW RD	E OF ALICO RD	250	3900	4600	4500	3700	2900	2900				3100	15
CORTEZ BLVD	W OF US 41	614		2400	2700	2200	1700						29
CRYSTAL DR	E OF US 41	254	13400	13500	12700	10800	9700	10100			8600	11200	9
CRYSTAL DR	E OF METRO PKWY	255	4600	5800	4900	4000	4500	5200				6100	9
COUNTRY LAKES DR	S OF TICE ST	505		3300	3900	3300	2900	3000					11
CYPRESS LAKE DR	W OF SOUTH POINTE BLVD	256	21900	22500	21600	19300	17000	19700					30
CYPRESS LAKE DR	E OF SOUTH POINTE BLVD	257	27600	26400	29100	24800	21500	25500					30
CYPRESS LAKE DR	E OF OVERLOOK DR	73									29400	24700	
CYPRESS LAKE DR	W OF SUMMERLIN RD	259	34300	34200	34600	28800	36300	30400	28700	27900	27800		30
CYPRESS LAKE DR	W OF US 41	258	43100	43600	43500	34200	34500	37100	33700	31700	34000	35900	30
DANIELS PKWY	W OF METRO PKWY	30	48300	49900	48300	41200	44100	43400	43100	40500	40100	46400	
DANIELS PKWY	W OF PLANTATION RD	263	56800	54100	52500	43300	47100	46700				48000	30

TRIP GENERATION EQUATIONS

TRIP GENERATION EQUATIONS
ESTERO CCRC
ITE TRIP GENERATION REPORT, 9th EDITION

Land Use	Weekday AM Peak Hour	Weekday PM Peak Hour	Weekday
Continuing Care Retirement Community (LUC 255)	Ln (T) = 0.85 Ln (X) – 0.82 (65% In/35% Out)	Ln (T) = 0.89 Ln (X) – 0.99 (39% In/61% Out)	T = 2.01 (X) + 715.56
T = Trips, X = Units			
Residential Condominium/Townhouse (LUC 230)	Ln (T) = 0.80 Ln (X) + 0.26 (17% In/83% Out)	Ln (T) = 0.82 Ln (X) + 0.32 (67% In/33% Out)	Ln (T) = 0.87 Ln (X) + 2.46
T = Trips, X = Dwelling Units			
Assisted Living (LUC 254)	T = 0.14 (X) (65% In/35% Out)	T = 0.22 (X) (44% In/56% Out)	Ln (T) = 0.56 Ln (X) + 3.07
T = Trips, X = Beds			
Senior Adult Housing - Detached (LUC 251)	T = 0.17 (X) + 29.95 (35% In/65% Out)	Ln (T) = 0.75 Ln (X) + 0.35 (61% In/39% Out)	Ln (T) = 0.89 Ln (X) + 2.06
T = Trips, X = Dwelling Units			

TRIP GENERATION EQUATIONS
EXISTING USES APPROVED UNDER Z-05-038 & Z-05-039

Land Use	Weekday AM Peak Hour	Weekday PM Peak Hour	Weekday
Shopping Center (LUC 820)	Ln (T) = 0.61 Ln (X) + 2.24 (62% In/38% Out)	Ln (T) = 0.67 Ln (X) + 3.31 (48% In/52% Out)	Ln (T) = 0.65 Ln (X) + 5.83
T = Trips, X = 1,000's of square feet GLA			
General Office Building (LUC 710)	Ln (T) = 0.80 Ln (X) + 1.57 (88% In/12% Out)	T = 1.12 (X) + 78.45 (17% In/83% Out)	Ln (T) = 0.76 Ln (X) + 3.68
T = Trips, X = 1,000's of square feet GFA			

TRIP GENERATION COMPARISON

EXISTING APPROVED USES vs. PROPOSED CCRC USE

Approved Uses Per Z-05-038 & Z-05-039
130,000 square feet of shopping center retail
71,500 square feet of general office uses

Requested Use
340 Units of Continuing Care Retirement Community

Table 3A
Trip Generation
Approved Uses under Z-05-038 & Z-05-039

Land Use	Weekday A.M. Peak Hour			Weekday P.M. Peak Hour			Daily
	In	Out	Total	In	Out	Total	2-way
Shopping Center (130,000 square feet)	113	70	183	343	371	714	8,054
General Office (71,500 square feet)	129	17	146	26	132	158	1,017
Total Trips	242	87	329	369	503	1,472	9,071

Table 4A
Pass-by Trip Reduction Factors
Existing Approved Uses

Land Use	Percentage Trip Reduction
Shopping Center (LUC 820)	30%

Table 5A
Net New Trip Generation
Existing Approved Uses

Land Use	Weekday A.M. Peak Hour			Weekday P.M. Peak Hour			Daily
	In	Out	Total	In	Out	Total	(2-way)
Total Trips	242	87	329	369	503	872	9,071
Less LUC 820 Pass-By Trips	-34	-21	-55	-103	-111	-214	-2,416
Net New Trips	208	66	274	266	392	658	6,655

Table 6A
Comparison of Net New Trips
Existing vs. Proposed

Land Use	Weekday A.M. Peak Hour			Weekday P.M. Peak Hour			Daily (2-way)
	In	Out	Total	In	Out	Total	
Propose Uses	11	52	63	50	24	74	797
Existing Approved Use	-208	-66	-274	-266	-392	-658	-6,655
Net New Trips	-197	-14	-211	-216	-368	-584	-5,858

A Negative number represents the amount of trip DECREASE that will occur as a result of the rezoning from CPD to RPD

TR TRANSPORTATION CONSULTANTS, INC.

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FORT MYERS, FL 33901-9356
OFFICE 239.278.3090
FAX 239.278.1906
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TRAFFIC ENGINEERING
TRANSPORTATION PLANNING
SIGNAL SYSTEMS/DESIGN

October 16, 2015

Ms. Paula McMichael
Hole Montes, Inc.
950 Encore Way
Naples, FL 34110

RE: Volunteers of America
DCI2015-00013

Dear Ms. McMichael:

TR Transportation Consultants, Inc. has revised the trip generation and Level of Service analysis at the request of the applicant to include Medical Office as a principal use rather than as an ancillary use. Based on the Master Concept Plan, trips were generated by the proposed 15,000 square feet of permitted Medical Office and added to the surrounding roadways. The Level of Service analysis was update to ensure that the project would continue to meet the goals and objectives outline in the Village of Estero Comprehensive Plan and Land Development Code.

Consistent with the trip generation computed in the original traffic analysis, the "worst case" was analyzed in terms of the peak hour, peak direction impacts. This was based on the development of the site with a total of 340 Assisted Living beds. The trip generation for the 15,000 square feet of proposed Medical Office uses was then added to this trip generation. **Table 1** reflects the updated trip generation for the project as currently proposed.

Table 1
Trip Generation
Estero CCRC + Medical Office

Land Use	Weekday A.M. Peak Hour			Weekday P.M. Peak Hour			Daily
	In	Out	Total	In	Out	Total	2-way
Assisted Living (340 Beds)	31	17	48	33	42	75	564
Medical Office (15,000 sq. ft.)	28	8	36	15	38	53	398
Total Trips	59	25	84	48	80	127	962

Tables 1A and **2A** were revised to address the update trip generation. **Figure 2** and **Figure 3** from the TIS were also revised to reflect the revised trip generation. The revised tables and figures are attached this letter for reference.

For comparison purposes, the peak trip generation shown in the revised trip generation table, Table 1, was compared to the trip generation of the uses as currently approved under the two approved zoning resolutions. Based on zoning resolution Z-05-038, a total of 70,000 square feet of retail uses are approved and 30,000 square feet of office uses are approved. Under Z-05-039, a total of 60,000 square feet of retail uses are approved and 83,000 square feet of office uses are approved. This CPD (Z-05-039) currently has approximately 41,500 square feet of office uses constructed east of Design Parc Lane. Therefore, the 21.36 acres that is subject to this rezoning could be developed with up to 130,000 square feet of retail uses and 71,500 square feet of office uses. The trip generation comparison between these uses and the CCRC/Medical Office use is shown below in **Table 2**. Based on the comparison, the modification of the zoning from a CPD to the CCRC/Medical Office use will represent an approximate eighty-one percent (81%) decrease in the weekday P.M. peak hour trip generation from the subject 21.36 acre parcel.

Table 2
Comparison of Net New Trips
Existing vs. Proposed

Land Use	Weekday A.M. Peak Hour			Weekday P.M. Peak Hour			Daily
	In	Out	Total	In	Out	Total	(2-way)
Proposed Uses	39	60	99	65	62	127	1,195
Existing Approved Uses	-208	-66	-274	-266	-392	-658	-6,655
Net New Trips	-169	-6	-175	-201	-330	-531	-5,460

A Negative number represents the amount of trip DECREASE that will occur as a result of the rezoning from CPD to RPD

Village staff requested that the Applicant address what impacts this rezoning will have on the interchange with Corkscrew Road and I-75 would have, if any. As seen on Figure 2, it is only anticipated that approximately 45% of the project traffic will arrive from/depart to the east on Corkscrew Road, towards the I-75 interchange. As project related traffic continues east from the project site, it will dissipate further from the connections of River Ranch Road and more notably at Three Oaks Parkway, a major north/south arterial. It is only anticipated that approximately 20% to 25% of the project trips will reach the I-75 interchange from this project. It is only anticipated that 5% to 10% of the project trips will enter/exit I-75, with the majority of those 20% to 25% percent project trips continuing to/from the east on Corkscrew Road to points east of I-75.

Based on the anticipated trip distribution, the trips from this project were assigned to the interchange ramps with I-75 and an analysis done to determine the impact this project will have on the I-75 interchange. Traffic counts collected by TR Transportation Consultants at the two ramp terminal intersections with I-75 at Corkscrew Road were utilized as the base traffic volumes for the analysis. The determination of the projected background traffic volumes and the development trips assigned to these ramp intersections are attached to this letter for reference.

The capacity analysis at the two ramp intersections with I-75 indicate that the proposed rezoning would have a negligible impact on the operations of the I-75 interchange as it currently exists (with no improvements). The overall intersection Level of Service for the northbound ramp during the weekday P.M. peak hour is LOS "E" in the year 2020 without the project and will remain at LOS "E" in 2020 with the project, with the average vehicle delay only increasing by 1.8%. The southbound ramp is also projected to operate at LOS "E" in 2020 without the project and will continue to operate at LOS "E" with the project, with the average vehicle delay only increasing by approximately 1.8%. Therefore, based on the analysis, the impacts the proposed rezoning will have on the operations of the interchange ramps at Corkscrew Road and I-75 will be minimal. In fact, the requested land use will decrease the impacts this property would have on the interchange. Based on the existing zoning approvals, the subject site could be developed with approximately 81% more P.M. peak hour trips that what is currently proposed. It can be concluded that should the subject site develop based on the currently approved zoning parameters, the impact to the interchange at I-75 and Corkscrew Road would be much greater than the minimal impacts anticipated at the interchange should the requested zoning be approved.

If you have any additional questions, please do not hesitate to contact me.

Sincerely,

Ted B. Treesh, PTP
President

Attachments

APPENDIX

TABLES 1A & 2A

TABLE 1A
PEAK DIRECTION PROJECT TRAFFIC VS. LOS C LINK VOLUMES
ESTERO CCRC With MEDICAL OFFICE

Revised 10-16-2015

TOTAL AM PEAK HOUR PROJECT TRAFFIC = 84 VPH IN= 59 OUT= 25

TOTAL PM PEAK HOUR PROJECT TRAFFIC = 128 VPH IN= 48 OUT= 80

ROADWAY	SEGMENT	ROADWAY CLASS	LOS A VOLUME	LOS B VOLUME	LOS C VOLUME	LOS D VOLUME	LOS E VOLUME	PROJECT TRAFFIC DISTRIBUTION	NEW PROJ TRAFFIC AM PEAK	NEW PROJ TRAFFIC PM PEAK	PROJ/ LOS C
Corkscrew Rd	E. of US 41	4LD	0	260	1,840	1,960	1,960	25%	15	20	1.09%
	E. of Corkcrew Palms Blvd.	4LD	0	260	1,840	1,960	1,960	45%	27	36	1.96%
Via Cocount	S. of Corkscrew Rd.	4LD	0	0	780	1,530	1,530	20%	12	16	2.05%
Sandy Lane	N. of Corkscrew Rd.	2LN	0	0	310	670	740	10%	6	8	2.58%

The Level of Service thresholds for all roadways were obtained from the Lee County Generalized Service Volume Table

- Denotes a Significantly Impacted roadway segment

TABLE 2A
ESTERO CCRC With MEDICAL OFFICE
5-YEAR LEVEL OF SERVICE ANALYSIS

Revised 10-16-2015

TOTAL AM PEAK HOUR PROJECT TRAFFIC = 84 VPH IN= 59 OUT= 25

TOTAL PM PEAK HOUR PROJECT TRAFFIC = 128 VPH IN= 48 OUT= 80

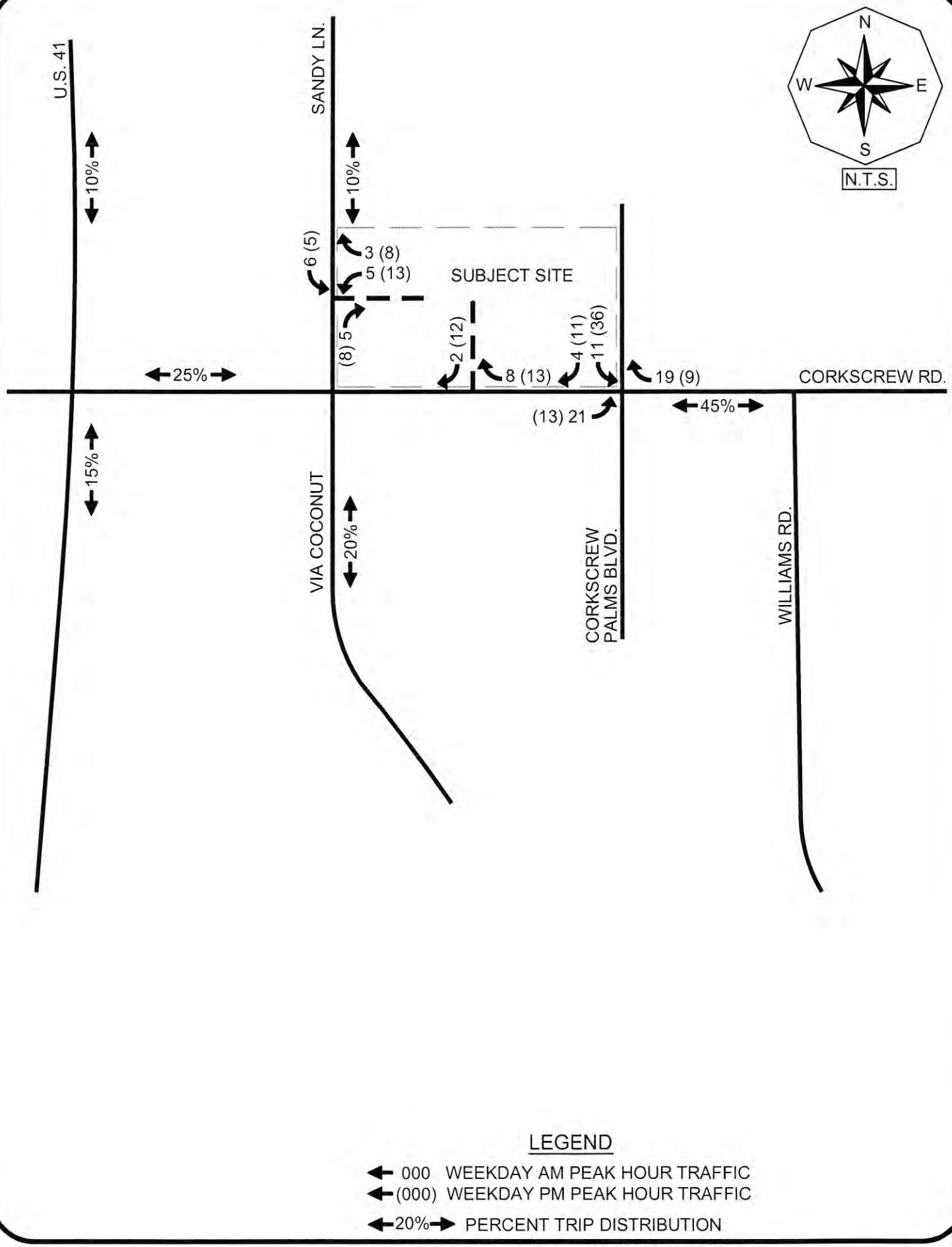
ROADWAY	SEGMENT	SITE/ STATION	BASE YR ADT	2014 ADT	YRS OF GROWTH	ANNUAL GROWTH RATE	2013 PK HR PK SEASON PEAK DIR.	2020 PK HR PK SEASON PEAK DIRECTION VOLUME	LOS	PROJECT TRAFFIC DISTRIBUTION	AM PROJ TRAFFIC	PM PROJ TRAFFIC	2020 BCKGRND + AM PROJ VOLUME	LOS	2020 BCKGRND + PM PROJ VOLUME	LOS
Corkscrew Rd	E. of US 41	247	13,900	14,300	9	1.00%	688	738	C	25%	15	20	752	C	758	C
	E. of Corkscrew Palms Blvd.	247	13,900	14,300	9	1.00%	688	738	C	45%	27	36	764	C	774	C
Via Cocount	S. of Corkscrew Rd.	No Data Available - Corkscrew Road AGR Used				1.00%	249	267	C	20%	12	16	279	C	283	C
Sandy Lane	N. of Corkscrew Rd.	No Data Available - Corkscrew Road AGR Used				1.00%	215	231	C	10%	6	8	236	C	239	C

[1]The 2013 peak hour, peak season, peak direction traffic volumes were taken from the 2014 Lee County Concurrency Report.

For Sandy Lane, 2013 Peak Hour Peak Directional Volume taken from turning movement count conducted in Aug. 2014 factored by Peak Seasone adjustment factor

REVISED FIGURE 2 & FIGURE 3

F1503.14/ Sufficiency



LEGEND

← 000 WEEKDAY AM PEAK HOUR TRAFFIC

←(000) WEEKDAY PM PEAK HOUR TRAFFIC

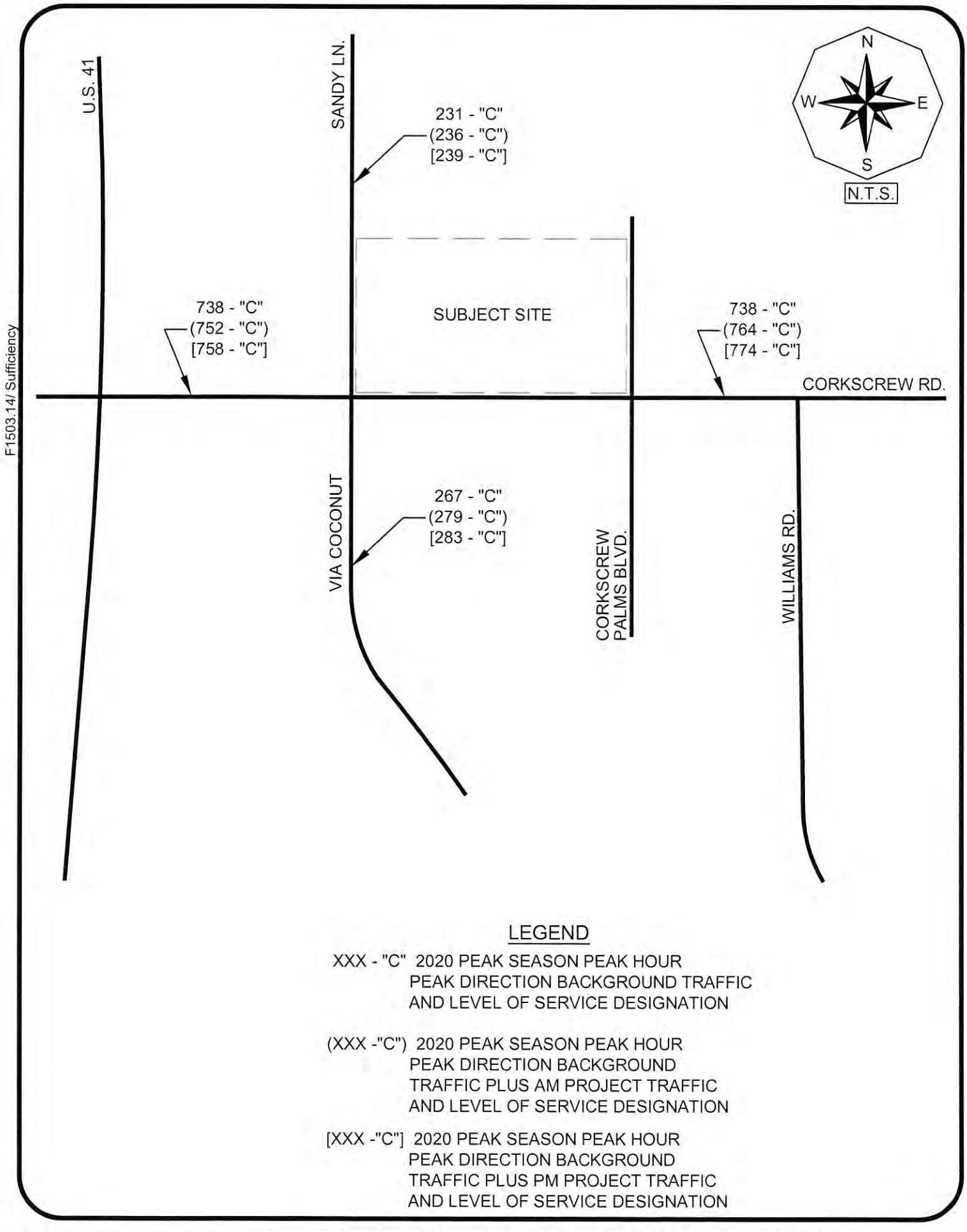
←20%→ PERCENT TRIP DISTRIBUTION

TRANSPORTATION CONSULTANTS, INC.

TRIP DISTRIBUTION & SITE TRAFFIC ASSIGNMENT ESTERO CCRC + MEDICAL OFFICE

Figure 2

REVISED 10/16/15



F1503.14/ Sufficiency

LEGEND

XXX - "C" 2020 PEAK SEASON PEAK HOUR
PEAK DIRECTION BACKGROUND TRAFFIC
AND LEVEL OF SERVICE DESIGNATION

(XXX -"C") 2020 PEAK SEASON PEAK HOUR
PEAK DIRECTION BACKGROUND
TRAFFIC PLUS AM PROJECT TRAFFIC
AND LEVEL OF SERVICE DESIGNATION

[XXX -"C"] 2020 PEAK SEASON PEAK HOUR
PEAK DIRECTION BACKGROUND
TRAFFIC PLUS PM PROJECT TRAFFIC
AND LEVEL OF SERVICE DESIGNATION

TR TRANSPORTATION CONSULTANTS, INC.

PROJECTED 2020 LEVEL OF SERVICE ANALYSIS
ESTERO CCRC + MEDICAL OFFICE

Figure 3
REVISED 10/16/15

DEVELOPMENT OF FUTURE BACKGROUND TRAFFIC VOLUMES

Development of Future Year Background Turning Volumes

Intersection **Corkscrew Road @ I-75 NB**
Count Date September 11, 2014
Build-Out Year 2020

	PM Peak Hour											
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
RAW Turning Movement Counts	403	0	388	0	0	0	540	607	0	0	766	213
Peak Season Correction Factor	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.34
Current Peak Season Volumes	540	0	520	0	0	0	724	813	0	0	1,026	285
Growth Rate	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
Years to Build-out	6	6	6	6	6	6	6	6	6	6	6	6
2020 Background Turning Volumes	573	0	552	0	0	0	769	863	0	0	1,089	303
Project Turning Volumes	1	0	0	0	0	0	8	8	0	0	3	0
2020 Background + Project	**574**	**0**	**552**	**0**	**0**	**0**	**777**	**871**	**0**	**0**	**1,092**	**303**

Intersection **Corkscrew Road @ I-75 SB**
Count Date September 11, 2014
Build-Out Year 2020

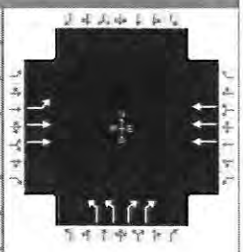
	PM Peak Hour											
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
RAW Turning Movement Counts	0	0	0	174	0	304	0	1,141	174	413	394	0
Peak Season Correction Factor	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.34
Current Peak Season Volumes	0	0	0	233	0	407	0	1,529	233	553	528	0
Growth Rate	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
Years to Build-out	6	6	6	6	6	6	6	6	6	6	6	6
2020 Background Turning Volumes	0	0	0	247	0	432	0	1,623	247	587	560	0
Project Turning Volumes	0	0	0	0	0	2	0	16	4	0	4	0
2020 Background + Project	**0**	**0**	**0**	**247**	**0**	**434**	**0**	**1,639**	**251**	**587**	**564**	**0**

HIGHWAY CAPACITY SUMMARY SHEETS

I-75 NB @ CORKSCREW ROAD

HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	TR Transportation Consultants			Duration, h	0.25
Analyst	tbt	Analysis Date	Oct 16, 2015	Area Type	Other
Jurisdiction	Lee Co/FDOT	Time Period	PM Peak Background	PHF	0.92
Urban Street	Corkscrew Road	Analysis Year	2020	Analysis Period	1> 7:00
Intersection	Corkwcrew Road @ I-75...	File Name	NB Ramp Background.xus		
Project Description	Weekday PM Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	769	863			1089		573		552			

Signal Information			
Cycle, s	130.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

								1	2	3	4	
Green	52.0	29.0	28.0	0.0	0.0	0.0						
Yellow	4.5	4.5	4.5	0.0	0.0	0.0	5	6	7	8		
Red	2.5	2.5	2.5	0.0	0.0	0.0						

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2		6		8		
Case Number	2.0	4.0		8.3		9.0		
Phase Duration, s	59.0	95.0		36.0		35.0		
Change Period, (*Y+R c*), s	7.0	7.0		7.0		7.0		
Max Allow Headway (*MAH*), s	3.0	0.0		0.0		3.1		
Queue Clearance Time (*g s*), s	54.0					29.2		
Green Extension Time (*g e*), s	0.0	0.0		0.0		0.0		
Phase Call Probability	1.00					1.00		
Max Out Probability	1.00					1.00		

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2			6		3		18			
Adjusted Flow Rate (*v*), veh/h	836	938			1184		623		600			
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1810	1809			1725		1757		1425			
Queue Service Time (*g s*), s	52.0	5.0			29.0		21.5		27.2			
Cycle Queue Clearance Time (*g c*), s	52.0	5.0			29.0		21.5		27.2			
Green Ratio (*g/C*)	0.40	0.68			0.22		0.22		0.22			
Capacity (*c*), veh/h	724	2449			1155		757		614			
Volume-to-Capacity Ratio (*X*)	1.155	0.383			1.025		0.823		0.977			
Available Capacity (*c a*), veh/h	724	2449			1155		757		614			
Back of Queue (*Q*), veh/ln (50 th percentile)	35.8	1.4			14.8		9.3		12.0			
Queue Storage Ratio (*RQ*) (50 th percentile)	0.00	0.00			0.00		0.00		0.00			
Uniform Delay (*d 1*), s/veh	30.3	2.3			45.7		44.0		50.7			
Incremental Delay (*d 2*), s/veh	84.9	0.5			33.1		6.9		30.4			
Initial Queue Delay (*d 3*), s/veh	0.0	0.0			0.0		0.0		0.0			
Control Delay (*d*), s/veh	115.2	2.7			78.8		50.9		81.1			
Level of Service (LOS)	F	A			F		D		F			
Approach Delay, s/veh / LOS	55.7	E		78.8	E		65.7	E		0.0		
Intersection Delay, s/veh / LOS	65.2						E					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.1	B	1.9	A	2.9	C	3.3	C
Bicycle LOS Score / LOS	1.9	A	1.1	A		F		

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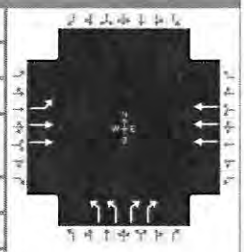
HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	TR Transportation Consultants			Duration, h	0.25
Analyst	tbt	Analysis Date	Oct 16, 2015	Area Type	Other
Jurisdiction	Lee Co/FDOT	Time Period	PM Peak W/ Project	PHF	0.92
Urban Street	Corkscrew Road	Analysis Year	2020	Analysis Period	1> 7:00
Intersection	Corkwcrew Road @ I-75...	File Name	NB Ramp With Project.xus		
Project Description	Weekday PM Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	777	871			1092		574		552			

Signal Information			
Cycle, s	130.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	52.0	29.0	28.0	0.0	0.0	0.0	
Yellow	4.5	4.5	4.5	0.0	0.0	0.0	
Red	2.5	2.5	2.5	0.0	0.0	0.0	

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2		6		8		
Case Number	2.0	4.0		8.3		9.0		
Phase Duration, s	59.0	95.0		36.0		35.0		
Change Period, (*Y+R c*), s	7.0	7.0		7.0		7.0		
Max Allow Headway (*MAH*), s	3.0	0.0		0.0		3.1		
Queue Clearance Time (*g s*), s	54.0					29.2		
Green Extension Time (*g e*), s	0.0	0.0		0.0		0.0		
Phase Call Probability	1.00					1.00		
Max Out Probability	1.00					1.00		

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2			6		3		18			
Adjusted Flow Rate (*v*), veh/h	845	947			1187		624		600			
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1810	1809			1725		1757		1425			
Queue Service Time (*g s*), s	52.0	5.1			29.0		21.6		27.2			
Cycle Queue Clearance Time (*g c*), s	52.0	5.1			29.0		21.6		27.2			
Green Ratio (*g/C*)	0.40	0.68			0.22		0.22		0.22			
Capacity (*c*), veh/h	724	2449			1155		757		614			
Volume-to-Capacity Ratio (*X*)	1.167	0.387			1.028		0.824		0.977			
Available Capacity (*c a*), veh/h	724	2449			1155		757		614			
Back of Queue (*Q*), veh/ln (50 th percentile)	36.8	1.4			14.9		9.3		12.0			
Queue Storage Ratio (*RQ*) (50 th percentile)	0.00	0.00			0.00		0.00		0.00			
Uniform Delay (*d 1*), s/veh	30.3	2.3			45.7		44.0		50.7			
Incremental Delay (*d 2*), s/veh	89.6	0.5			33.9		6.9		30.4			
Initial Queue Delay (*d 3*), s/veh	0.0	0.0			0.0		0.0		0.0			
Control Delay (*d*), s/veh	120.0	2.8			79.6		51.0		81.1			
Level of Service (LOS)	F	A			F		D		F			
Approach Delay, s/veh / LOS	58.0	E		79.6	E		65.8	E		0.0		
Intersection Delay, s/veh / LOS	66.4						E					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.1	B	1.9	A	2.9	C	3.3	C
Bicycle LOS Score / LOS	1.9	A	1.1	A		F		

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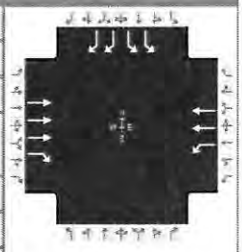
HIGHWAY CAPACITY SUMMARY SHEETS

I-75 SB @ CORKSCREW ROAD

HCS 2010 Signalized Intersection Results Summary

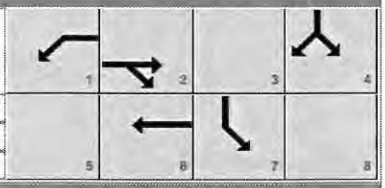
General Information				Intersection Information	
Agency	TR Transportation Consultants			Duration, h	0.25
Analyst	tbt	Analysis Date	Oct 16, 2015	Area Type	Other
Jurisdiction	Lee Co/FDOT	Time Period	PM Peak Background	PHF	0.92
Urban Street	Corkscrew Road	Analysis Year	2020	Analysis Period	1> 7:00
Intersection	Corkwcrew Road @ I-75...	File Name	SB Ramp Background.xus		
Project Description	Weekday PM Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h		1623	247	587	560					247		432

Signal Information			
Cycle, s	130.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	38.0	48.0	23.0	0.0	0.0	0.0
Yellow	4.5	4.5	4.5	0.0	0.0	0.0
Red	2.5	2.5	2.5	0.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2	1	6				4
Case Number		7.3	2.0	4.0				9.0
Phase Duration, s		55.0	45.0	100.0				30.0
Change Period, (*Y+R c*), s		7.0	7.0	7.0				7.0
Max Allow Headway (*MAH*), s		0.0	3.0	0.0				3.2
Queue Clearance Time (*g s*), s			40.0					23.1
Green Extension Time (*g e*), s		0.0	0.0	0.0				0.0
Phase Call Probability			1.00					1.00
Max Out Probability			1.00					1.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement		2	12	1	6					7		14
Adjusted Flow Rate (*v*), veh/h		1764	203	638	609					268		470
Adjusted Saturation Flow Rate (*s*), veh/h/ln		1725	1610	1810	1809					1757		1425
Queue Service Time (*g s*), s		41.2	10.0	38.0	1.3					8.9		21.1
Cycle Queue Clearance Time (*g c*), s		41.2	10.0	38.0	1.3					8.9		21.1
Green Ratio (*g/C*)		0.37	0.37	0.29	0.72					0.18		0.18
Capacity (*c*), veh/h		1911	595	529	2588					622		504
Volume-to-Capacity Ratio (*X*)		0.923	0.342	1.206	0.235					0.432		0.931
Available Capacity (*c a*), veh/h		1911	595	529	2588					622		504
Back of Queue (*Q*), veh/ln (50 th percentile)		16.2	3.8	31.1	0.4					3.8		9.0
Queue Storage Ratio (*RQ*) (50 th percentile)		0.00	0.00	0.00	0.00					0.00		0.00
Uniform Delay (*d 1*), s/veh		31.3	23.4	39.7	0.9					47.7		52.7
Incremental Delay (*d 2*), s/veh		9.0	1.6	109.7	0.2					0.2		23.9
Initial Queue Delay (*d 3*), s/veh		0.0	0.0	0.0	0.0					0.0		0.0
Control Delay (*d*), s/veh		40.3	24.9	149.3	1.1					47.9		76.6
Level of Service (LOS)		D	C	F	A					D		E
Approach Delay, s/veh / LOS	38.7	D		77.0	E		0.0			66.1	E	
Intersection Delay, s/veh / LOS	55.9						E					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.9	A	2.1	B	3.2	C	3.1	C
Bicycle LOS Score / LOS	1.6	A	1.5	A				F

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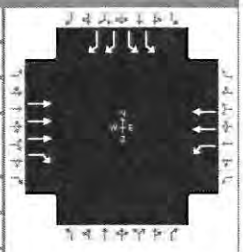
HCS 2010 Signalized Intersection Results Summary

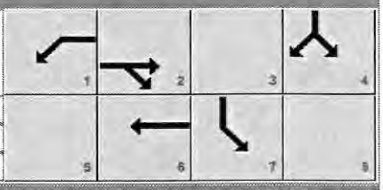
General Information				Intersection Information	
Agency	TR Transportation Consultants			Duration, h	0.25
Analyst	tbt	Analysis Date	Oct 16, 2015	Area Type	Other
Jurisdiction	Lee Co/FDOT	Time Period	PM Peak W/ Project	PHF	0.92
Urban Street	Corkscrew Road	Analysis Year	2020	Analysis Period	1> 7:00
Intersection	Corkwcrew Road @ I-75...	File Name	SB Ramp With Project.xus		
Project Description	Weekday PM Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h		1639	251	587	564					247		434

Signal Information			
Cycle, s	130.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	40.1	45.0	23.9	0.0	0.0	0.0	
Yellow	4.5	4.5	4.5	0.0	0.0	0.0	
Red	2.5	2.5	2.5	0.0	0.0	0.0	



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2	1	6				4
Case Number		7.3	2.0	4.0				9.0
Phase Duration, s		52.0	47.1	99.1				30.9
Change Period, ($Y+R_c$), s		7.0	7.0	7.0				7.0
Max Allow Headway (*MAH*), s		0.0	3.0	0.0				3.2
Queue Clearance Time (g_s), s			42.1					23.0
Green Extension Time (g_e), s		0.0	0.0	0.0				0.9
Phase Call Probability			1.00					1.00
Max Out Probability			1.00					0.68

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement		2	12	1	6					7		14
Adjusted Flow Rate (*v*), veh/h		1782	208	638	613					268		472
Adjusted Saturation Flow Rate (*s*), veh/h/ln		1725	1610	1810	1809					1757		1425
Queue Service Time (g_s), s		44.5	10.9	40.1	1.6					8.8		21.0
Cycle Queue Clearance Time (g_c), s		44.5	10.9	40.1	1.6					8.8		21.0
Green Ratio (*g/C*)		0.35	0.35	0.31	0.71					0.18		0.18
Capacity (*c*), veh/h		1792	557	558	2562					647		525
Volume-to-Capacity Ratio (*X*)		0.994	0.372	1.144	0.239					0.415		0.899
Available Capacity (c_a), veh/h		1792	557	558	2562					730		592
Back of Queue (*Q*), veh/ln (50 th percentile)		19.4	4.1	28.7	0.5					3.8		8.4
Queue Storage Ratio (*RQ*) (50 th percentile)		0.00	0.00	0.00	0.00					0.00		0.00
Uniform Delay (d_1), s/veh		34.9	25.8	38.3	1.1					46.8		51.9
Incremental Delay (d_2), s/veh		20.0	1.9	84.5	0.2					0.2		14.5
Initial Queue Delay (d_3), s/veh		0.0	0.0	0.0	0.0					0.0		0.0
Control Delay (*d*), s/veh		54.8	27.7	122.8	1.3					47.0		66.4
Level of Service (LOS)		D	C	F	A					D		E
Approach Delay, s/veh / LOS	52.0	D		63.3	E		0.0			59.3	E	
Intersection Delay, s/veh / LOS	56.9						E					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.9	A	2.1	B	3.2	C	3.1	C
Bicycle LOS Score / LOS	1.6	A	1.5	A				F

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FDOT PEAK SEASON ADJUSTMENT FACTOR

2014 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL

CATEGORY: 1248 S OF ALICO ROAD

MOCF: 0.85

WEEK	DATES	SF	PSCF
1	01/01/2014 - 01/04/2014	0.91	1.07
* 2	01/05/2014 - 01/11/2014	0.89	1.05
* 3	01/12/2014 - 01/18/2014	0.88	1.04
* 4	01/19/2014 - 01/25/2014	0.87	1.02
* 5	01/26/2014 - 02/01/2014	0.86	1.01
* 6	02/02/2014 - 02/08/2014	0.85	1.00
* 7	02/09/2014 - 02/15/2014	0.84	0.99
* 8	02/16/2014 - 02/22/2014	0.83	0.98
* 9	02/23/2014 - 03/01/2014	0.83	0.98
*10	03/02/2014 - 03/08/2014	0.83	0.98
*11	03/09/2014 - 03/15/2014	0.82	0.96
*12	03/16/2014 - 03/22/2014	0.82	0.96
*13	03/23/2014 - 03/29/2014	0.85	1.00
*14	03/30/2014 - 04/05/2014	0.88	1.04
15	04/06/2014 - 04/12/2014	0.90	1.06
16	04/13/2014 - 04/19/2014	0.93	1.09
17	04/20/2014 - 04/26/2014	0.96	1.13
18	04/27/2014 - 05/03/2014	0.99	1.16
19	05/04/2014 - 05/10/2014	1.03	1.21
20	05/11/2014 - 05/17/2014	1.06	1.25
21	05/18/2014 - 05/24/2014	1.09	1.28
22	05/25/2014 - 05/31/2014	1.12	1.32
23	06/01/2014 - 06/07/2014	1.14	1.34
24	06/08/2014 - 06/14/2014	1.17	1.38
25	06/15/2014 - 06/21/2014	1.19	1.40
26	06/22/2014 - 06/28/2014	1.20	1.41
27	06/29/2014 - 07/05/2014	1.21	1.42
28	07/06/2014 - 07/12/2014	1.22	1.44
29	07/13/2014 - 07/19/2014	1.23	1.45
30	07/20/2014 - 07/26/2014	1.22	1.44
31	07/27/2014 - 08/02/2014	1.20	1.41
32	08/03/2014 - 08/09/2014	1.19	1.40
33	08/10/2014 - 08/16/2014	1.17	1.38
34	08/17/2014 - 08/23/2014	1.16	1.36
35	08/24/2014 - 08/30/2014	1.15	1.35
36	08/31/2014 - 09/06/2014	1.15	1.35
37	09/07/2014 - 09/13/2014	1.14	1.34
38	09/14/2014 - 09/20/2014	1.13	1.33
39	09/21/2014 - 09/27/2014	1.10	1.29
40	09/28/2014 - 10/04/2014	1.08	1.27
41	10/05/2014 - 10/11/2014	1.05	1.24
42	10/12/2014 - 10/18/2014	1.03	1.21
43	10/19/2014 - 10/25/2014	1.00	1.18
44	10/26/2014 - 11/01/2014	0.98	1.15
45	11/02/2014 - 11/08/2014	0.96	1.13
46	11/09/2014 - 11/15/2014	0.94	1.11
47	11/16/2014 - 11/22/2014	0.92	1.08
48	11/23/2014 - 11/29/2014	0.91	1.07
49	11/30/2014 - 12/06/2014	0.91	1.07
50	12/07/2014 - 12/13/2014	0.91	1.07
51	12/14/2014 - 12/20/2014	0.91	1.07
52	12/21/2014 - 12/27/2014	0.89	1.05
53	12/28/2014 - 12/31/2014	0.88	1.04

* PEAK SEASON

TRAFFIC COUNT DATA

@

CORKSCREW ROAD @ I-75 RAMPS

TRANSPORTATION CONSULTANTS, INC.

DATE: September 11, 2014
DAY: THURSDAY
COUNT TIME: 4:00 PM - 6:00 PM
TRAFFIC: ALL TRIPS

15 MINUTE SUMMARY OF INDIVIDUAL MOVEMENTS

I-75 Northbound Ramps & Corkscrew Road

15 MIN BEGIN	I-75 Northbound Ramps								Corkscrew Road								INTER-SECTION TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	LEFT	THRU	RIGHT	TOTAL	LEFT	THRU	RIGHT	TOTAL	LEFT	THRU	RIGHT	TOTAL	LEFT	THRU	RIGHT	TOTAL	
4:00 PM	74	0	87	161	0	0	0	0	106	155	0	261	0	174	50	224	646
4:15 PM	80	0	108	188	0	0	0	0	142	96	0	238	0	205	44	249	675
4:30 PM	52	0	107	159	0	0	0	0	128	135	0	263	0	214	52	266	688
4:45 PM	91	0	82	173	0	0	0	0	124	165	0	289	0	182	61	243	705
5:00 PM	77	0	87	164	0	0	0	0	131	119	0	250	0	212	40	252	666
5:15 PM	95	0	101	196	0	0	0	0	156	183	0	339	0	199	67	266	801
5:30 PM	140	0	118	258	0	0	0	0	129	140	0	269	0	173	45	218	745
5:45 PM	107	0	90	197	0	0	0	0	94	145	0	239	0	192	44	236	672
TOTAL:	716	0	780	1,496	0	0	0	0	1,010	1,138	0	2,148	0	1,551	403	1,954	5,598

HOURLY SUMMARY OF INDIVIDUAL MOVEMENTS

I-75 Northbound Ramps & Corkscrew Road

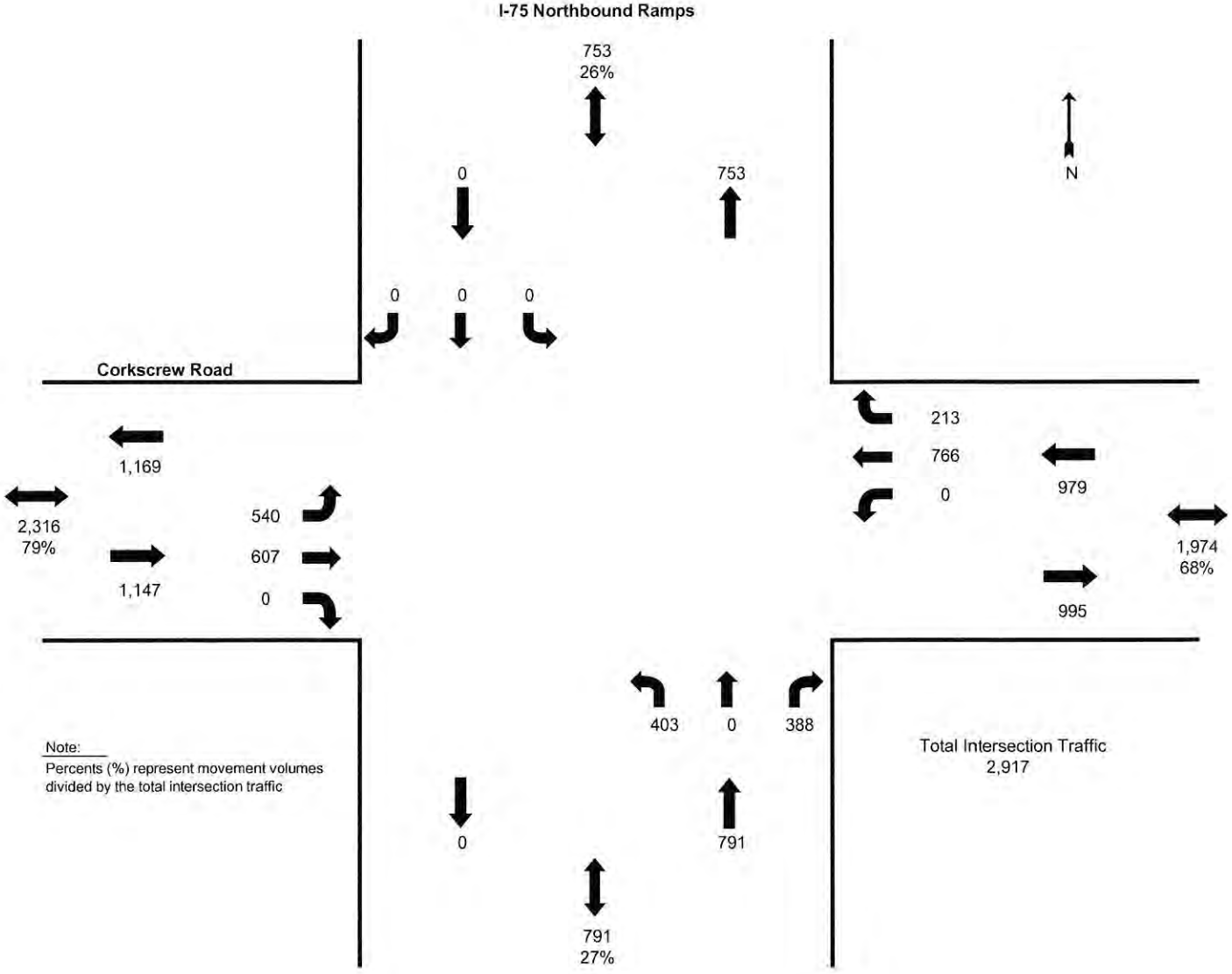
HOUR BEGIN	I-75 Northbound Ramps								Corkscrew Road								INTER-SECTION TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	LEFT	THRU	RIGHT	TOTAL	LEFT	THRU	RIGHT	TOTAL	LEFT	THRU	RIGHT	TOTAL	LEFT	THRU	RIGHT	TOTAL	
4:00 PM	297	0	384	681	0	0	0	0	500	551	0	1,051	0	775	207	982	2,714
4:15 PM	300	0	384	684	0	0	0	0	525	515	0	1,040	0	813	197	1,010	2,734
4:30 PM	315	0	377	692	0	0	0	0	539	602	0	1,141	0	807	220	1,027	2,860
4:45 PM	403	0	388	791	0	0	0	0	540	607	0	1,147	0	766	213	979	2,917
5:00 PM	419	0	396	815	0	0	0	0	510	587	0	1,097	0	776	196	972	2,884

PEAK HOUR SUMMARY

HOUR BEGIN	I-75 Northbound Ramps								Corkscrew Road								INTER-SECTION TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	LEFT	THRU	RIGHT	TOTAL	LEFT	THRU	RIGHT	TOTAL	LEFT	THRU	RIGHT	TOTAL	LEFT	THRU	RIGHT	TOTAL	
4:45 PM	403	0	388	791	0	0	0	0	540	607	0	1,147	0	766	213	979	2,917

TRANSPORTATION CONSULTANTS, INC.

DATE: September 11, 2014
DAY: THURSDAY
COUNT TIME: 4:00 PM - 6:00 PM
PEAK HOUR: 4:45 PM - 5:45 PM
TRAFFIC: ALL TRIPS
INTERSECTION: I-75 Northbound Ramps & Corkscrew Road



TRANSPORTATION CONSULTANTS, INC.

DATE: September 11, 2014
DAY: THURSDAY
COUNT TIME: 4:00 PM - 6:00 PM
TRAFFIC: ALL TRIPS

15 MINUTE SUMMARY OF INDIVIDUAL MOVEMENTS

I-75 Southbound Ramps & Corkscrew Road

15 MIN BEGIN	I-75 Southbound Ramps								Corkscrew Road								INTER-SECTION TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	LEFT	THRU	RIGHT	TOTAL	LEFT	THRU	RIGHT	TOTAL	LEFT	THRU	RIGHT	TOTAL	LEFT	THRU	RIGHT	TOTAL	
4:00 PM	0	0	0	0	45	0	40	85	0	261	37	298	91	83	0	174	557
4:15 PM	0	0	0	0	37	0	64	101	0	238	54	292	90	115	0	205	598
4:30 PM	0	0	0	0	43	0	72	115	0	263	57	320	97	117	0	214	649
4:45 PM	0	0	0	0	24	0	60	84	0	289	37	326	93	89	0	182	592
5:00 PM	0	0	0	0	39	0	80	119	0	250	34	284	108	104	0	212	615
5:15 PM	0	0	0	0	68	0	92	160	0	339	46	385	115	84	0	199	744
5:30 PM	0	0	0	0	47	0	84	131	0	269	60	329	77	96	0	173	633
5:45 PM	0	0	0	0	50	0	68	118	0	239	40	279	78	114	0	192	589
TOTAL:	0	0	0	0	353	0	560	913	0	2,148	365	2,513	749	802	0	1,551	4,977

HOURLY SUMMARY OF INDIVIDUAL MOVEMENTS

I-75 Southbound Ramps & Corkscrew Road

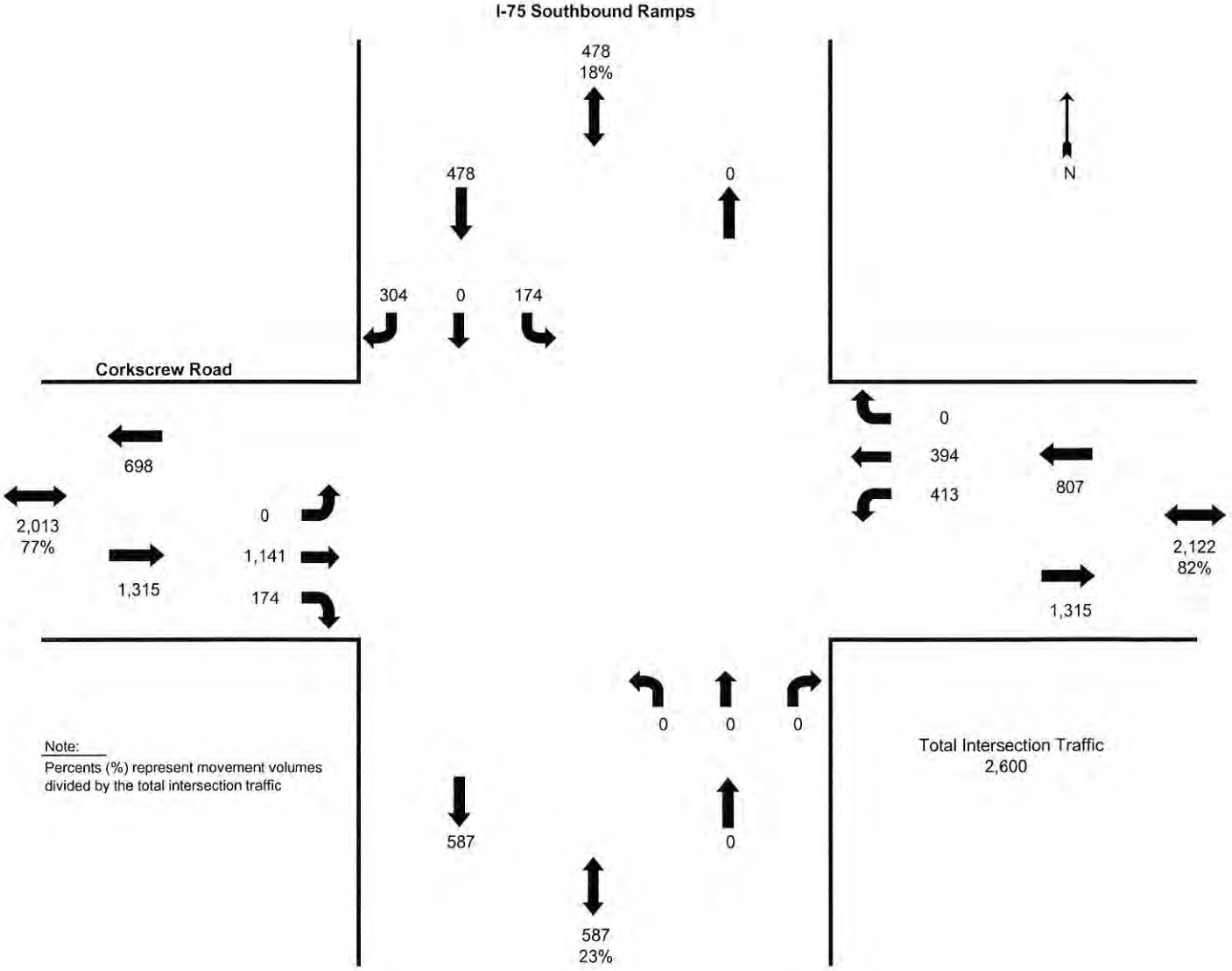
HOUR BEGIN	I-75 Southbound Ramps								Corkscrew Road								INTER-SECTION TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	LEFT	THRU	RIGHT	TOTAL	LEFT	THRU	RIGHT	TOTAL	LEFT	THRU	RIGHT	TOTAL	LEFT	THRU	RIGHT	TOTAL	
4:00 PM	0	0	0	0	149	0	236	385	0	1,051	185	1,236	371	404	0	775	2,396
4:15 PM	0	0	0	0	143	0	276	419	0	1,040	182	1,222	388	425	0	813	2,454
4:30 PM	0	0	0	0	174	0	304	478	0	1,141	174	1,315	413	394	0	807	2,600
4:45 PM	0	0	0	0	178	0	316	494	0	1,147	177	1,324	393	373	0	766	2,584
5:00 PM	0	0	0	0	204	0	324	528	0	1,097	180	1,277	378	398	0	776	2,581

PEAK HOUR SUMMARY

HOUR BEGIN	I-75 Southbound Ramps								Corkscrew Road								INTER-SECTION TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	LEFT	THRU	RIGHT	TOTAL	LEFT	THRU	RIGHT	TOTAL	LEFT	THRU	RIGHT	TOTAL	LEFT	THRU	RIGHT	TOTAL	
4:30 PM	0	0	0	0	174	0	304	478	0	1,141	174	1,315	413	394	0	807	2,600

TRANSPORTATION CONSULTANTS, INC.

DATE: September 11, 2014
DAY: THURSDAY
COUNT TIME: 4:00 PM - 6:00 PM
PEAK HOUR: 4:30 PM - 5:30 PM
TRAFFIC: ALL TRIPS
INTERSECTION: I-75 Southbound Ramps & Corkscrew Road



TRIP GENERATION EQUATIONS

TRIP GENERATION EQUATIONS
ESTERO CCRC
ITE TRIP GENERATION REPORT, 9th EDITION

Land Use	Weekday AM Peak Hour	Weekday PM Peak Hour	Weekday
Continuing Care Retirement Community (LUC 255)	Ln (T) = 0.85 Ln (X) – 0.82 (65% In/35% Out)	Ln (T) = 0.89 Ln (X) – 0.99 (39% In/61% Out)	T = 2.01 (X) + 715.56
T = Trips, X = Units			
Residential Condominium/Townhouse (LUC 230)	Ln (T) = 0.80 Ln (X) + 0.26 (17% In/83% Out)	Ln (T) = 0.82 Ln (X) + 0.32 (67% In/33% Out)	Ln (T) = 0.87 Ln (X) + 2.46
T = Trips, X = Dwelling Units			
Assisted Living (LUC 254)	T = 0.14 (X) (65% In/35% Out)	T = 0.22 (X) (44% In/56% Out)	Ln (T) = 0.56 Ln (X) + 3.07
T = Trips, X = Beds			
Medical-Dental Office (LUC 720)	T = 2.39 (X) (79% In/21% Out)	Ln (T) = 0.90 Ln (X) + 1.53 (28% In/72% Out)	T = 40.89 (X) – 214.97
T = Trips, X = 1,000 sq. ft. of Gross Floor Area			
Senior Adult Housing - Detached (LUC 251)	T = 0.17 (X) + 29.95 (35% In/65% Out)	Ln (T) = 0.75 Ln (X) + 0.35 (61% In/39% Out)	Ln (T) = 0.89 Ln (X) + 2.06
T = Trips, X = Dwelling Units			

TRIP GENERATION EQUATIONS
EXISTING USES APPROVED UNDER Z-05-038 & Z-05-039

Land Use	Weekday AM Peak Hour	Weekday PM Peak Hour	Weekday
Shopping Center (LUC 820)	Ln (T) = 0.61 Ln (X) + 2.24 (62% In/38% Out)	Ln (T) = 0.67 Ln (X) + 3.31 (48% In/52% Out)	Ln (T) = 0.65 Ln (X) + 5.83
T = Trips, X = 1,000's of square feet GLA			
General Office Building (LUC 710)	Ln (T) = 0.80 Ln (X) + 1.57 (88% In/12% Out)	T = 1.12 (X) + 78.45 (17% In/83% Out)	Ln (T) = 0.76 Ln (X) + 3.68
T = Trips, X = 1,000's of square feet GFA			

TRIP GENERATION COMPARISON

EXISTING APPROVED USES vs. PROPOSED CCRC USE

Approved Uses Per Z-05-038 & Z-05-039

130,000 square feet of shopping center retail
71,500 square feet of general office uses

Requested Use

340 Units of Continuing Care Retirement Community or 340 Bed Assisted Living Facility or 340 Unit Independent Living Facility or 128 Multi-Family Dwelling Units

+

15,000 sq. ft. of Medical Office

Table 3A
Trip Generation
Approved Uses under Z-05-038 & Z-05-039

Land Use	Weekday A.M. Peak Hour			Weekday P.M. Peak Hour			Daily
	In	Out	Total	In	Out	Total	2-way
Shopping Center (130,000 square feet)	113	70	183	343	371	714	8,054
General Office (71,500 square feet)	129	17	146	26	132	158	1,017
Total Trips	242	87	329	369	503	1,472	9,071

Table 4A
Pass-by Trip Reduction Factors
Existing Approved Uses

Land Use	Percentage Trip Reduction
Shopping Center (LUC 820)	30%

Table 5A
Net New Trip Generation
Existing Approved Uses

Land Use	Weekday A.M. Peak Hour			Weekday P.M. Peak Hour			Daily
	In	Out	Total	In	Out	Total	(2-way)
Total Trips	242	87	329	369	503	872	9,071
Less LUC 820 Pass-By Trips	-34	-21	-55	-103	-111	-214	-2,416
Net New Trips	208	66	274	266	392	658	6,655

Table 6A
Comparison of Net New Trips
Existing vs. Proposed

Land Use	Weekday A.M. Peak Hour			Weekday P.M. Peak Hour			Daily
	In	Out	Total	In	Out	Total	(2-way)
Propose Uses	39	60	99	65	62	127	1,195
Existing Approved Use	-208	-66	-274	-266	-392	-658	-6,655
Net New Trips	-169	-6	-175	-201	-330	-531	-5,460

A Negative number represents the amount of trip DECREASE that will occur as a result of the rezoning from CPD to RPD

"Worst Case" Trip Generation Analysis

Table 7A
Trip Generation
Estero CCRC

Land Use	Weekday A.M. Peak Hour			Weekday P.M. Peak Hour			Daily
	In	Out	Total	In	Out	Total	2-way
CCRC (340 Units)	41	21	62	26	41	67	1,399
Multi-Family (128 Units)	11	52	63	50	24	74	797
Independent Living (340 Units)	23	45	68	45	38	83	1,034
Assisted Living (340 Beds)	31	17	48	33	42	75	564
+							
Medical Office (15,000 sq. ft.)	28	8	36	15	38	53	398
Worst Case	59	26	84	48	**80**	127	962

"Worst Case" is the greatest peak hour, peak direction volume, which is the Medical Office + the Assisted Living Use.

ROADWAY LINK NAME	FROM	TO	ROAD TYPE	PERFORMANCE STANDARD		2014 100th HIGHEST HR		EST 2015 100th HIGHEST HR		FORECAST FUTURE VOL		NOTES*	LINK NO.
				LOS	CAPACITY	LOS	VOLUME	LOS	VOLUME	LOS	VOLUME		
COLONIAL BL (SR 884)	METRO PKWY	WINKLER AVE	6LD	E	3,220	C	2,633	C	2,633	C	2,656		05900
COLONIAL BL (SR 884)	WINKLER AVE	SIX MILE CYPRESS PKWY	6LD	E	3,220	C	3,179	C	3,179	C	3,179		06000
COLONIAL BL (SR 884)	SIX MILE CYPRESS PKWY	I-75	6LD	E	3,220	F	3,531	F	3,531	F	3,531	FDOT IMR underway for interchange area	06100
COLONIAL BL	I-75	IMMOKALEE RD (SR 82)	6LD	D	3,240	B	2,127	B	2,127	B	2,127		06200
COLUMBUS BL*	SR 82	MILWAUKEE BL	2LU	E	860	C	88	C	88	C	90		06300
CONSTITUTION BL*	US 41	CONSTITUTION CIR	2LU	E	860	C	217	C	220	C	220		06400
CORBETT RD*	PINE ISLAND RD	LITTLETON RD	2LU	E	860	C	22	C	22	C	22		06500
CORKSCREW RD*	US 41	THREE OAKS PKWY	4LD	E	1,900	C	688	B	689	B	700		06600
CORKSCREW RD	THREE OAKS PKWY	I-75	4LD	E	1,900	C	1,575	C	1,601	F	2,308		06700
CORKSCREW RD	I-75	BEN HILL GRIFFIN BL	4LD	E	1,900	C	1,147	C	1,147	C	1,854		06800
CORKSCREW RD	BEN HILL GRIFFIN BL	ALICO RD	2LN	E	1,130	E	772	E	772	E	772		06900
CORKSCREW RD*	ALICO RD	COLLIER COUNTY LINE	2LN	E	1,080	B	183	B	184	D	537		07000
COUNTRY LAKES	LUCKETT RD	TICE ST	2LU	E	860	C	143	C	168	C	191		07100
CRYSTAL DR	US 41	METRO PKWY	2LU	E	860	C	476	C	476	D	631	2LD design in FY 18/19, ROW in FY 19/20	07200
CRYSTAL DR	METRO PKWY	PLANTATION RD	2LU	E	860	C	259	C	259	C	267		07300
CYPRESS LAKE DR*	McGREGOR B	SO POINTE BL	4LD	E	1,940	D	890	D	890	D	890		07400
CYPRESS LAKE DR	SOUTH POINTE BL	WINKLER RD	4LD	E	1,940	D	1,231	D	1,231	D	1,256		07500
CYPRESS LAKE DR	WINKLER RD	SUMMERLIN RD	4LD	E	1,940	D	1,535	D	1,535	D	1,538		07600
CYPRESS LAKE DR	SUMMERLIN RD	US 41	6LD	E	2,940	D	1,625	D	1,628	D	1,628		07700
DANIELS PKWY	US 41	METRO PKWY	6LD	E	2,680	D	2,248	D	2,248	D	2,343		07800
DANIELS PKWY	METRO PKWY	SIX MILE CYPRESS PKWY	6LD	E	2,680	D	2,172	D	2,172	D	2,207	Constrained v/c = 0.81	07900
DANIELS PKWY	SIX MILE CYPRESS PKWY	PALOMINO RD	6LD	E	3,000	C	2,685	C	2,692	C	2,974	Constrained v/c = 0.90	08000
DANIELS PKWY	PALOMINO RD	I-75	6LD	E	3,000	C	2,494	C	2,496	C	2,769	Constrained v/c = 0.83	08100
DANIELS PKWY	I-75	TREELINE AVE	6LD	E	3,180	A	2,506	A	2,510	A	2,527		08200
DANIELS PKWY*	TREELINE AVE	CHAMBERLIN PKWY	6LD	E	3,180	A	2,356	A	2,406	A	2,483		08300
DANIELS PKWY	CHAMBERLIN PKWY	GATEWAY BL	6LD	E	3,180	A	2,293	A	2,293	A	2,293		08400
DANIELS PKWY	GATEWAY BL	IMMOKALEE RD (SR82)	4LD	E	2,120	A	1,585	A	1,638	A	1,665		08500
DANLEY RD	US 41	METRO PKWY	2LU	E	860	C	279	C	316	C	414		08600
DAVIS RD*	McGREGOR BL	IONA RD	2LU	E	860	C	15	C	31	C	55		08700
DEL PRADO BL*	CAPE CORAL PKWY	SE 46th ST	6LD	E	2,820	C	1,304	C	1,304	C	1,304		08800
DEL PRADO BL*	SE 46th ST	CORONADO PKWY	6LD	E	2,820	C	1,392	C	1,392	C	1,392		08900
DEL PRADO BL	CORONADO PKWY	CORNWALLIS PKWY	6LD	E	2,820	D	1,843	D	1,843	D	1,843		09000
DEL PRADO BL	CORNWALLIS PKWY	VETERANS MEM PKWY	6LD	E	2,820	F	2,948	F	2,948	F	2,948		09100
DEL PRADO BL	VETERANS MEM PKWY	CORAL POINT DR	6LD	E	2,840	D	2,396	D	2,396	D	2,396		09150
DEL PRADO BL	CORAL POINT DR	HANCOCK BR PKWY	6LD	E	2,840	D	2,063	D	2,063	D	2,063		09200

ROADWAY LINK NAME	FROM	TO	ROAD TYPE	PERFORMANCE STANDARD		2014 100th HIGHEST HR		EST 2015 100th HIGHEST HR		FORECAST FUTURE VOL		NOTES*	LINK NO.
				LOS	CAPACITY	LOS	VOLUME	LOS	VOLUME	LOS	VOLUME		
PALM BEACH BL (SR 80)	JOEL BLVD	HENDRY COUNTY LINE	4LD	C	2,320	A	530	A	533	B	1,243		20400
PALOMINO RD	DANIELS PKWY	PENZANCE BL	2LU	E	860	C	324	C	325	C	391	Turn lanes/bike path in FY 16/17	20500
PARK MEADOW DR*	SUMMERLIN RD	US 41	2LU	E	860	C	133	C	134	C	269		20600
PENZANCE BL*	RANCHETTE RD	SIX MILE CYPRESS PKWY	2LU	E	860	C	130	C	130	C	132		20800
PINE ISLAND RD	STRINGFELLOW BL	BURNT STORE RD	2LN	E	950	E	578	E	578	E	578	Constrained in part v/c = 0.61	20900
PINE ISLAND RD (SR 78)	BURNT STORE RD	CHIQUITA BL	4LD	C	2,160	A	626	A	626	A	641		21000
PINE ISLAND RD (SR 78)	CHIQUITA BL	SANTA BARBARA BL	4LD	C	2,160	A	1,587	A	1,587	A	1,587		21100
PINE ISLAND RD (SR 78)	SANTA BARBARA BL	DEL PRADO BL	4LD	C	2,160	B	1,876	B	1,878	B	1,967		21200
PINE ISLAND RD (SR 78)	DEL PRADO BL	BARRETT RD	4LD	E	2,160	A	1,229	A	1,233	A	1,233		21300
PINE ISLAND RD (SR 78)	BARRETT RD	US 41	4LD	E	2,160	A	1,229	A	1,229	A	1,232		21400
PINE ISLAND RD (SR 78)	US 41	BUSINESS 41	4LD	E	1,720	C	1,256	C	1,256	C	1,351		21500
PINE RIDGE RD*	SAN CARLOS BL	SUMMERLIN RD	2LU	E	860	C	458	C	458	C	458		21600
PINE RIDGE RD*	SUMMERLIN RD	GLADIOLUS BL	2LU	E	860	C	253	C	253	C	253		21700
PINE RIDGE RD	GLADIOLUS DR	McGREGOR BL	2LU	E	860	C	233	C	233	C	233		21800
PLANTATION RD	SIX MILE CYPRESS PKWY	DANIELS PKWY	2LU	E	860	C	314	C	314	C	518		21900
PLANTATION RD	DANIELS PKWY	IDLEWILD ST	2LU	E	860	D	707	D	722	D	840	Roundabout at Crystal Dr in FY 14/15	22000
PLANTATION RD	IDLEWILD ST	COLONIAL BL	4LD	E	1,790	C	473	C	473	C	473		22050
PONDELLA RD	PINE ISLAND RD (SR 78)	ORANGE GROVE BL	4LD	E	1,900	B	935	B	935	B	938		22100
PONDELLA RD	ORANGE GROVE BL	US 41	4LD	E	1,900	B	1,205	B	1,205	B	1,205		22200
PONDELLA RD	US 41	BUSINESS 41	4LD	E	1,900	B	1,013	B	1,013	B	1,089		22300
PRICHETT PKWY*	BAYSHORE RD	RICH RD	2LU	E	860	C	73	C	73	C	76		22400
RANCHETTE RD*	PENZANCE BL	IDLEWILD ST	2LU	E	860	C	89	C	89	C	483		22500
RICH RD*	SLATER RD	PRITCHETT PKWY	2LU	E	860	C	55	C	55	C	55		22600
RICHMOND AVE*	LEELAND HEIGHTS BL	E 12th ST	2LU	E	860	C	72	C	73	C	74		22700
RICHMOND AVE*	E 12th ST	GREENBRIAR BL	2LU	E	860	C	59	C	60	C	79		22800
RIVER RANCH RD*	WILLIAMS RD	CORKSCREW RD	2LU	E	860	C	92	C	94	C	94		22900
SAN CARLOS BL (SR 865)	ESTERO BL	MAIN ST	2LB	E	1,100	B	1,066	B	1,069	F	1,112	Constrained in part v/c = 0.97; PD&E study by FDOT in FY 18/19	23000
SAN CARLOS BL (SR 865)	MAIN ST	SUMMERLIN RD	4LD	E	1,780	B	1,066	B	1,066	B	1,091	PD&E study by FDOT in FY 18/19	23100
SAN CARLOS BL (SR 865)	SUMMERLIN RD	KELLY RD	2LN	E	1,000	B	691	B	692	B	952		23180

ROADWAY LINK NAME	FROM	TO	ROAD TYPE	PERFORMANCE STANDARD		2014 100th HIGHEST HR		EST 2015 100th HIGHEST HR		FORECAST FUTURE VOL		NOTES*	LINK NO.
				LOS	CAPACITY	LOS	VOLUME	LOS	VOLUME	LOS	VOLUME		
TERMINAL ACCESS RD	TREELINE AVE	AIRPORT ENT	4LD	E	1,790	D	1,501	D	1,501	D	1,501		26450
THREE OAKS PKWY*	COCONUT RD	CORKSCREW RD	4LD	E	1,940	B	865	B	869	B	1,095		26500
THREE OAKS PKWY	CORKSCREW RD	SAN CARLOS BL	4LD	E	1,940	B	992	B	993	B	1,164		26600
THREE OAKS PKWY	SAN CARLOS BL	ALICO RD	4LD	E	1,940	A	[illegible]	A	544	A	548		26700
TICE ST	PALM BEACH BL (SR 80)	ORTIZ AVE	2LU	E	860	C	83	C	89	D	600		26800
TICE ST	ORTIZ AVE	STALEY RD	2LU	E	860	C	161	C	166	C	175		26900
TREELINE AVE	TERMINAL ACCESS RD	DANIELS PKWY	4LD	E	1,960	B	1,352	B	1,362	B	1,369		27000
TREELINE AVE	DANIELS PKWY	ARBORWOOD RD	4LD	E	1,960	A	625	A	625	A	625		27030
TREELINE AVE	ARBORWOOD RD	COLONIAL BL	4LD	E	1,960	A	625	A	625	A	625		27070
VANDERBILT BL	COLLIER COUNTY LINE	BONITA BEACH RD	2LN	E	860	C	287	C	287	C	291		27100
VETERANS MEM PKWY	SR78	SURFSIDE BL	4LD	D	2,080	A	759	A	759	A	759		27200
VETERANS MEM PKWY	SURFSIDE BL	CHIQUITA BL	4LD	E	2,080	A	664	A	664	A	664		27250
VETERANS MEM PKWY*	CHIQUITA BL	SKYLINE DR	4LD	D	2,080	A	1,810	A	1,810	A	1,810		27300
VETERANS MEM PKWY	SKYLINE DR	SANTA BARBARA BL	6LD	D	3,120	A	2,143	A	2,143	A	2,143		27400
VETERANS MEM PKWY	SANTA BARBARA	COUNTRY CLUB BL	6LD	D	3,120	A	2,644	A	2,644	A	2,644		27500
VETERANS MEM PKWY	COUNTRY CLUB BL	MIDPOINT BR TOLL PLAZA	6LD	D	3,120	B	3,010	B	3,010	B	3,010		27600
VETERANS MEM PKWY	MIDPOINT BR TOLL PLAZA	McGREGOR BL	4LB	E	4,000	C	[illegible]	C	2,467	C	2,467		27700
VIA COCONUT PT	SOUTH END	CORKSCREW RD	4LD	E	1,790	C	249	C	249	C	249		27720
WHISKEY CREEK	COLLEGE PKWY	SAUTERN DR	2LD	E	910	C	[illegible]	C	340	C	380		27900
WHISKEY CREEK	SAUTERN DR	McGREGOR BL	2LD	E	910	C	[illegible]	C	320	C	320		28000
WILLIAMS RD*	US 41	RIVER RANCH RD	2LU	E	860	C	202	C	204	C	256		28100
WILLIAMS AVE	LEE BL	W 6th ST	2LN	E	860	C	[illegible]	D	555	D	708		28200
WINKLER RD*	STOCKBRIDGE	SUMMERLIN RD	2LN	E	860	C	461	C	461	C	462		28300
WINKLER RD*	SUMMERLIN RD	GLADIOLUS DR	4LD	E	1,520	D	336	D	336	D	343		28400
WINKLER RD*	GLADIOLUS DR	BRANDYWINE CIR	2LN	E	920	B	593	B	593	B	595		28500
WINKLER RD	BRANDYWINE CIR	CYPRESS LAKE DR	2LN	E	920	B	593	B	593	B	593		28600
WINKLER RD	CYPRESS LAKE DR	COLLEGE PKWY	4LD	E	1,800	C	612	C	612	C	762		28700
WINKLER RD*	COLLEGE PKWY	McGREGOR BL	2LN	E	840	B	350	B	350	B	439		28800
WOODLAND BL*	US 41	CHATHAM ST	2LU	E	860	C	266	C	266	C	266		28900
W 6th ST*	WILLIAMS AVE	JOEL BL	2LU	E	860	C	153	C	153	C	153		29000
W 12th ST*	GUNNERY RD	SUNSHINE BL	2LU	E	860	C	77	C	79	C	79		29100
W 12th ST*	SUNSHINE BL	WILLIAMS AVE	2LU	E	860	C	76	C	76	C	76		29200
W 12th ST*	WILLIAMS AVE	JOEL BL	2LU	E	860	C	92	C	93	C	93		29300
W 14th ST*	SUNSHINE BL	RICHMOND AVE	2LU	E	860	C	48	C	49	C	49		29400
US 41	COLLIER COUNTY LINE	BONITA BEACH RD	6LD	E	2,740	B	2,048	B	2,048	B	2,048		29500
US 41	BONITA BEACH RD	WEST TERRY ST	6LD	E	3,020	B	2,261	B	2,261	B	2,261		29600

ROADWAY LINK NAME	FROM	TO	ROAD TYPE	PERFORMANCE STANDARD		2014 100th HIGHEST HR		EST 2015 100th HIGHEST HR		FORECAST FUTURE VOL		NOTES*	LINK NO.
				LOS	CAPACITY	LOS	VOLUME	LOS	VOLUME	LOS	VOLUME		
US 41	WEST TERRY ST	OLD 41	6LD	E	3,020	B	2,043	B	2,043	B	2,043		29700
US 41	OLD 41	CORKSCREW RD	6LD	E	3,020	B	2,302	B	2,497	B	2,725		29800
US 41	CORKSCREW RD	SANIBEL BL	6LD	E	3,000	B	1,858	B	1,871	B	2,042		29900
US 41	SANIBEL BL	ALICO RD	6LD	E	3,000	B	2,006	B	2,090	B	2,203		30000
US 41	ALICO RD	ISLAND PARK RD	6LD	E	3,000	B	2,484	B	2,485	B	2,666		30100
US 41	ISLAND PARK RD	JAMAICA BAY WEST	6LD	E	3,000	B	2,579	B	2,580	B	2,778		30200
US 41	JAMAICA BAY WEST	SIX MILE CYPRESS PKWY	6LD	E	3,000	B	2,732	B	2,732	B	2,732		30300
US 41	SIX MILE CYPRESS PKWY	DANIELS PKWY	6LD	E	2,840	D	2,558	D	2,558	D	2,682		30400
US 41	DANIELS PKWY	COLLEGE PKWY	6LD	E	2,840	F	3,088	F	3,088	F	3,100	Constrained v/c=1.09	30500
US 41	COLLEGE PKWY	SOUTH RD	6LD	E	2,840	D	2,298	D	2,344	D	2,368	Constrained v/c=0.81	30600
US 41	SOUTH DR	BOY SCOUT RD	6LD	E	2,840	F	3,016	F	3,016	F	3,016	Constrained v/c=1.06	30700
US 41	BOY SCOUT DR	NORTH AIRPORT RD	6LD	E	2,840	D	2,609	D	2,609	D	2,609	Constrained v/c=0.92	30800
US 41	NORTH AIRPORT RD	COLONIAL BL	6LD	E	2,840	D	2,612	D	2,612	D	2,612		30810
US 41	FOUNTAIN INTERCHANGE	NORTH KEY DR	4LD	E	2,200	F	2,433	F	2,433	F	2,433		30900
US 41	NORTH KEY DR	HANCOCK BRIDGE PKWY	4LD	E	2,200	F	2,433	F	2,433	F	2,463		31000
US 41	HANCOCK BRIDGE PKWY	PONDELLA RD	4LD	E	2,020	C	1,837	C	1,837	C	1,837		31100
US 41	PONDELLA RD	PINE ISLAND RD (SR 78)	4LD	E	2,020	C	1,449	C	1,450	C	1,450		31200
US 41	PINE ISLAND RD (SR 78)	LITTLETON RD	4LD	E	2,040	B	1,287	B	1,287	B	1,369		31300
US 41	LITTLETON RD	BUSINESS 41	4LD	E	2,040	A	1,000	A	1,000	B	1,365		31400
US 41	BUSINESS 41	DEL PRADO BL	4LD	E	2,040	B	1,276	B	1,277	B	1,297		31500
US 41	DEL PRADO BL	CHARLOTTE COUNTY LINE	4LD	E	2,040	B	1,506	B	1,512	B	1,583		31600
I-75	COLLIER COUNTY LINE	BONITA BEACH RD	6LF	D	5,500	C	4,142	C	4,142	C	4,142		31700
I-75	BONITA BEACH RD	CORKSCREW RD	6LF	D	5,500	C	3,973	C	3,973	C	3,973		31800
I-75	CORKSCREW RD	ALICO RD	6LF	D	5,500	C	3,859	C	3,859	C	3,859		31900
I-75	ALICO RD	DANIELS PKWY	6LF	D	5,500	C	3,691	C	3,691	C	3,691		32000
I-75	DANIELS PKWY	COLONIAL BL	6LF	D	5,500	C	3,419	C	3,419	C	3,419		32100
I-75	COLONIAL BL	DR ML KING BL (SR 82)	6LF	D	5,500	C	3,387	C	3,387	C	3,387		32200
I-75	DR ML KING BL (SR 82)	LUCKETT RD	6LF	D	5,500	B	3,234	B	3,234	B	3,234		32300
I-75	LUCKETT RD	PALM BEACH BL (SR 80)	6LF	D	5,500	B	3,049	B	3,049	B	3,049		32400
I-75	PALM BEACH BL (SR 80)	BAYSHORE RD (SR 78)	6LF	D	5,500	B	2,381	B	2,381	B	2,381	6 Ln construction underway	32500
I-75	BAYSHORE RD (SR 78)	CHARLOTTE COUNTY LINE	4LF	C	3,020	B	1,960	B	1,960	B	1,960	6 Ln construction underway	32600