



Application No.: SP-2015-001

Attachment "G"

Traffic Study

Village of Old Cutler Corp.

A RESOLUTION OF THE MAYOR AND TOWN COUNCIL OF THE TOWN OF CUTLER BAY, FLORIDA, APPROVING THE REQUEST BY VILLAGE OF OLD CUTLER CORP. FOR A SITE PLAN CONTAINING A 15,852 SQUARE FOOT CVS BUILDING AND A 40,536 SQUARE FOOT MIXED-USE BUILDING ON THE PROPERTY LOCATED AT 36-6009-003-0310 AND 36-6009-003-0290, AS LEGALLY DESCRIBED IN EXHIBIT "A", CONSISTING OF APPROXIMATELY 3.64 ACRES; AND PROVIDING FOR AN EFFECTIVE DATE.

CVS Pharmacy & Mixed-Use Development

Old Cutler Road
Cutler Bay, Florida

traffic study



prepared for:
Boos Development Group, Inc.

Traf Tech
ENGINEERING, INC.

May 2015
Updated September 2015

CVS Pharmacy & Mixed-Use Development

Old Cutler Road

Cutler Bay, Florida

Traffic Impact Analysis

May 2015

Updated September 2015

Prepared for:

Boos Development Group, Inc.
5789 NW 151 Street, #B
Miami Lakes, Florida 33014

Prepared by:

Traf Tech Engineering, Inc.
8400 N. University Drive, Suite 309
Tamarac, Florida 33321
Phone: (954) 560-7103



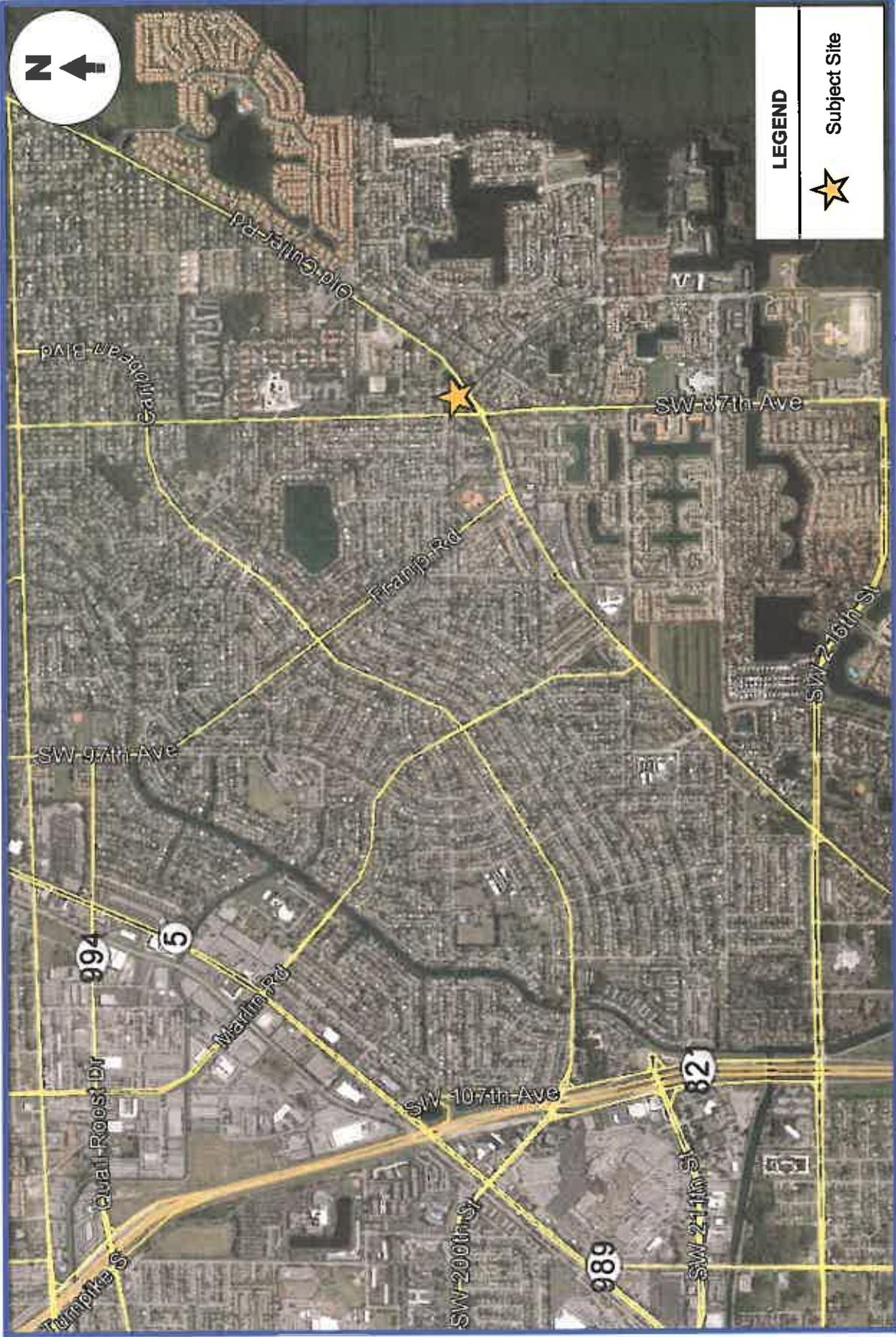
Karl B. Peterson, P.E.
Florida Registration Number 49897
Traf Tech Engineering, Inc.
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Tamarac, Florida 33321
CA # 26605

INTRODUCTION

The CVS Pharmacy / Mixed-Use Development is a proposed project to be located in the northeast quadrant of the intersection at Old Cutler Road and SW 87th Avenue (Galloway Road) in the Town of Cutler Bay, Miami-Dade County, Florida. The location of the project site is illustrated in Figure 1 on the following page.

Traf Tech Engineering, Inc. has been retained by Boos Development Group, Inc. to conduct a traffic impact study in connection with the development of this site. This study addresses trip generation and the traffic impacts created by the proposed project on the nearby transportation network. This study is divided into seven (7) sections, as listed below:

1. Inventory
2. Existing Conditions
3. Traffic Counts
4. Trip Generation
5. Trip Distribution & Assignment
6. Traffic Analyses
7. Summary & Conclusions



LEGEND



Subject Site

FIGURE 1

CVS Pharmacy & Mixed Use
Cutler Bay, Florida

Project Location Map

Traf Tech
ENGINEERING, INC.

INVENTORY

Existing Land Use and Access

The subject 3.643 (+/-) acre site is mostly vacant with the exception of a small landscape nursery located in the extreme eastern corner of the site. The nursery has one (1) driveway on Old Cutler Road but the remainder of the site has no formal vehicular access.

Proposed Land Uses and Access

The proposed project will consist of a 15,745 square foot CVS Pharmacy with a drive-through lane, 6,365 square feet of commercial retail space, and 18 residential apartment dwelling units. Access to the subject site will be provided by two (2) full access driveways on Old Cutler Road, one (1) full access driveway on SW 87th Avenue (Galloway Road), and one (1) full access driveway located on SW 200th Street. This project will also include the extension of SW 200th Street to the east to Old Cutler Road.

The proposed project is anticipated to be built and occupied in 2016. Appendix A contains the proposed site plan for the CVS Pharmacy & Mixed-Use Development project.

EXISTING CONDITIONS

This section of the report addresses the transportation system located in the vicinity of the CVS Pharmacy & Mixed-Use Development site.

Roadway System

The roadway system located adjacent to the site includes Old Cutler Road to the south, SW 87th Avenue to the west, and SW 200th Street to the north. Old Cutler Road is a two-lane undivided minor arterial roadway oriented in the northeast / southwest direction. SW 87th Avenue (Galloway Road) is a two-lane undivided minor arterial roadway oriented in the north-south direction. SW 200th Street is a two-lane local roadway. The roadway segments to be evaluated as part of this analysis include the following:

- Old Cutler Road (east and west of SW 87th Avenue)
- SW 87th Avenue (north and south of Old Cutler Road)

Study Intersections

Four (4) nearby intersections were identified as the locations to be evaluated as part of this analysis. These intersections are:

- Old Cutler Road and SW 87th Avenue (traffic circle)
- Old Cutler Road and SW 85th Avenue (stop-controlled)
- Old Cutler Road and SW 200th Street (stop-controlled)
- SW 87th Avenue and SW 200th Street (stop-controlled)

Figure 2 depicts the existing lane geometry of the four (4) intersections selected for analysis purposes. The number of lanes on the street system surrounding the project site is also depicted in this figure.

TRAFFIC COUNTS

Traf Tech Engineering, Inc., in association with Crossroads Engineering Data, Inc., collected traffic data at the following locations:

- **Intersections**
 - Old Cutler Road and SW 87th Avenue (traffic circle)
 - Old Cutler Road and SW 85th Avenue (stop-controlled)
 - Old Cutler Road and SW 200th Street (stop-controlled)
 - SW 87th Avenue and SW 200th Street (stop-controlled)

- **Roadway Segments**
 - Old Cutler Road (east and west of SW 87th Avenue)
 - SW 87th Avenue (north and south of Old Cutler Road)

The intersection turning movement counts were collected on Tuesday, February 17, 2015 during the AM peak period (7:00 AM to 9:00 AM) and the PM peak period (4:00 PM to 6:00 PM). The roadway link counts were collected for three (3) consecutive days beginning Tuesday, February 17, 2015 and concluding Thursday, February 19, 2015. Figures 3 and 4 summarize the results of this traffic data collection effort. Appendix B contains the traffic data as collected in the field. ¹

¹ A review of the roadway link counts revealed an anomaly for the data collected on Tuesday, February 17, 2015 at the count station on Old Cutler Road east of SW 87th Avenue. The remaining counts collected in February 18 - 19, 2015 appear to be consistent and reasonable. As such, the counts performed on February 17 at this station were not considered in the development of existing traffic volumes.

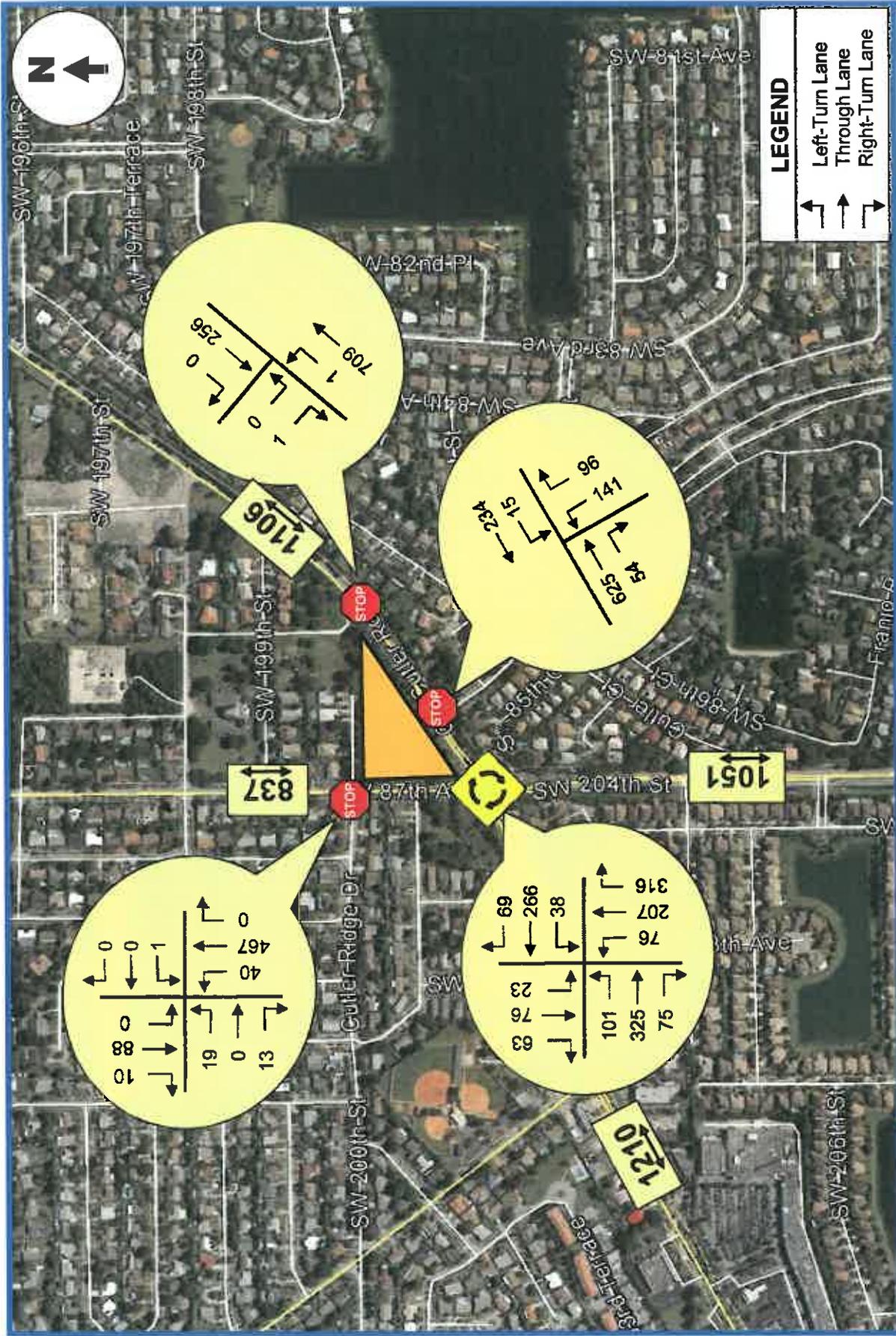


FIGURE 3
 CVS Pharmacy & Mixed-Use
 Cutler Bay, Florida

Existing AM (7:00 – 9:00) Peak Hour Traffic Counts
 Source: Crossroads Engineering Data, Inc. 02/17-19/15

TRIP GENERATION

The trip generation analysis for the CVS Pharmacy & Mixed-Use Development project was based upon information contained in the Institute of Transportation Engineer's (ITE) *Trip Generation Manual (9th Edition)*. According to the subject ITE manual, the most appropriate land use categories for the and proposed development are Land Use 881 – Pharmacy / Drugstore with Drive-Through Window; Land Use 820 – Shopping Center; and Land Use 220 – Apartment. The trip generation rates and equations used to determine the vehicle trips associated with this analysis are presented below.

ITE Land Use #881 – Pharmacy / Drugstore with Drive-Through Window

- Weekday: $T = 96.91 (X)$
where T = number of trips and X = 1,000 square feet of building area
- AM Peak Hour: $T = 3.45 (X)$ (52% in / 48% out)
- PM Peak Hour: $T = 9.91 (X)$ (50% in / 50% out)
 - Pass-by = 49%

ITE Land Use #820 – Shopping Center

- Weekday: $\ln(T) = 0.65 \ln(X) + 5.83$
where T = number of trips and X = 1,000 square feet of building area
- AM Peak Hour: $\ln(T) = 0.61 \ln(X) + 2.24$ (62% in / 38% out)
- PM Peak Hour: $\ln(T) = 0.67 \ln(X) + 3.31$ (48% in / 52% out)
 - Pass-by: $\ln(T) = -0.29 \ln(X) + 5.00$

ITE Land Use #220 – Apartment

- Weekday: $T = 6.06 (X) + 123.56$
where T = number of trips and X = number of dwelling units
- AM Peak Hour: $T = 0.49 (X) + 3.73$ (20% in / 80% out)
- PM Peak Hour: $T = 0.55 (X) + 17.65$ (65% in / 35% out)
 - Pass-by: N/A

Table 1 on the following page summarizes the vehicle trips associated with the proposed CVS Pharmacy & Mixed-Use Development on Old Cutler Road in the Town of Cutler Bay.

Table 1 Trip Generation Summary CVS Pharmacy & Mixed-Use Development - Cutler Bay, Florida								
Land Use	Size	Daily Trips	AM Peak Hour Trips			PM Peak Hour Trips		
			In	Out	Total	In	Out	Total
Proposed								
Pharmacy with Drive-Through - Pass-By (49%)	15,745 SF	1,526 (748)	28 (14)	26 (12)	54 (26)	78 (38)	78 (38)	156 (76)
Sub Total		778	14	14	28	40	40	80
Shopping Center - Pass-By (87%)	6,365 SF	1,133 (986)	18 (16)	11 (9)	29 (25)	46 (40)	49 (43)	95 (83)
Sub Total		147	2	2	4	6	6	12
Apartment - Pass-By (0%)	18 DU	233 0	3 0	10 0	13 0	18 0	10 0	28 0
Sub Total		233	3	10	13	18	10	28
Total		1,158	19	26	45	64	56	120

Compiled by: Traf Tech Engineering, Inc. (September 2015).

Source: Institute of Transportation Engineers (ITE) Trip Generation Manual (9th Edition).

As indicated in Table 1 above, the net new external trips anticipated to be generated by the proposed CVS Pharmacy & Mixed-Use Development project consists of approximately 1,158 vehicle trips during a typical weekday, 45 vehicle trips during the weekday AM peak hour (19 inbound and 26 outbound), and 120 vehicle trips during the weekday PM peak hour (64 inbound and 56 outbound).

TRIP DISTRIBUTION AND TRAFFIC ASSIGNMENT

The trip distribution for this project was based on Miami-Dade County's Cardinal Distribution information for the study area as presented in the 2040 Long Range Transportation Plan (LRTP). Table 2 below summarizes the County's Cardinal Distribution data for Traffic Analysis Zone (TAZ) 1332, which is applicable to the location of the subject project.

Table 2 Project Trip Distribution CVS Pharmacy & Mixed-Use Development Cutler Bay, Florida		
Direction		Percent Distribution
North	Northwest	10.0%
	Northeast	35.0%
South	Southwest	24.3%
	Southeast	3.6%
East	Northeast	12.7%
	Southeast	9.7%
West	Northwest	0.8%
	Southwest	3.9%
Total		100.0%

Source: Miami-Dade County MPO, 2040 LRTP

Using the trip distribution data documented in Table 2 above (along with a review of the surrounding land use patterns and consideration of the proposed land use types), the following traffic assignment was developed for the proposed CVS Pharmacy & Mixed-Use Development project:

- 40% to and from the north on SW 87th Avenue (Galloway Road)
- 20% to and from the east / northeast via Old Cutler Road
- 5% to and from the south / southeast via SW 85th Avenue
- 5% to and from the south via SW 87th Avenue (Galloway Road)
- 30% to and from the south / southwest via Old Cutler Road

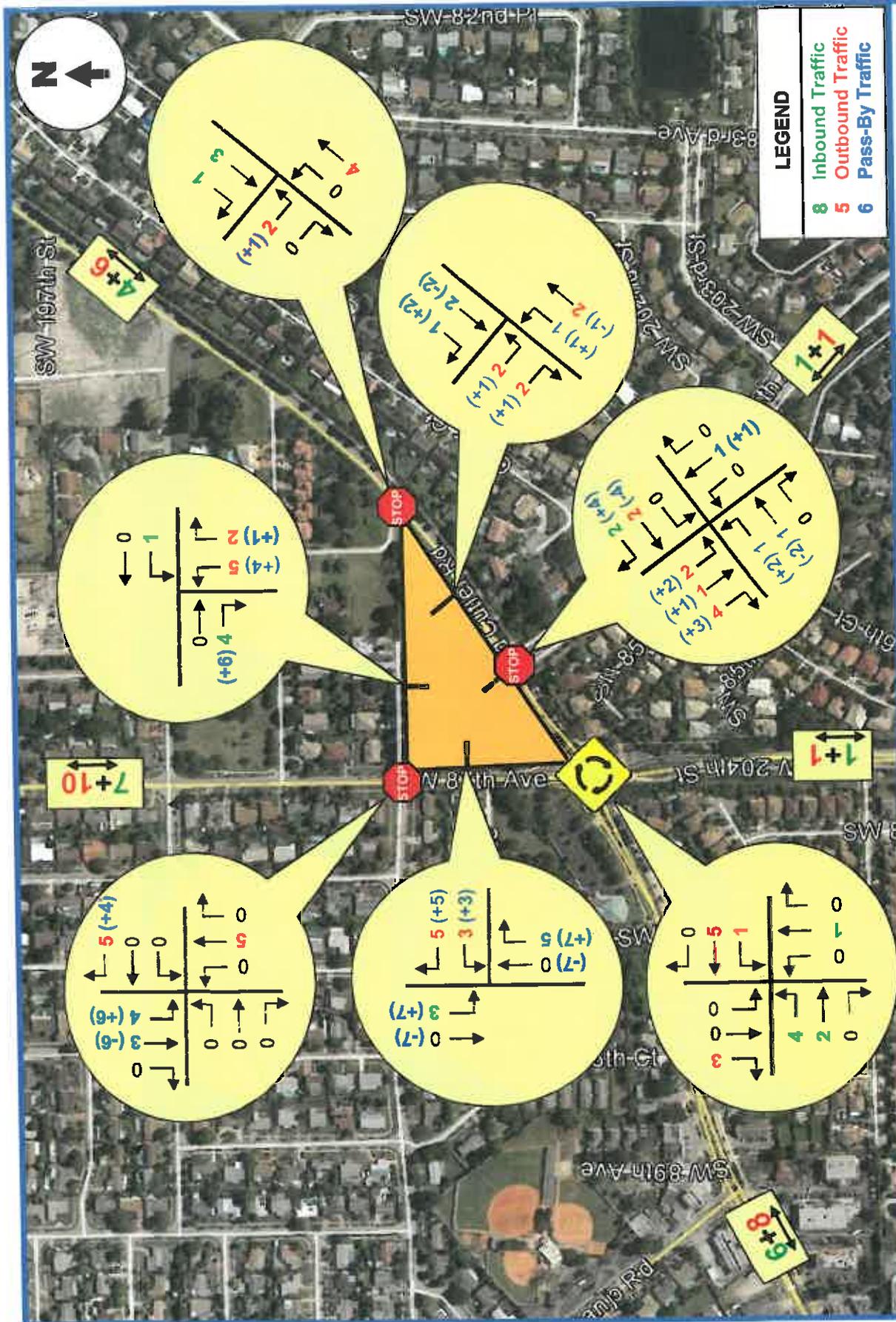
Figure 5 on the following page depicts the anticipated trip distribution for this project. The new peak hour traffic generated by the project was assigned to the nearby transportation network using the traffic assignment documented in Figure 5. The project traffic assignment and driveway volumes are summarized in Figures 6 and 7.



FIGURE 5
 CVS Pharmacy & Mixed-Use
 Cutler Bay, Florida

Project Trip Distribution

KBP
 CONSULTING, INC.



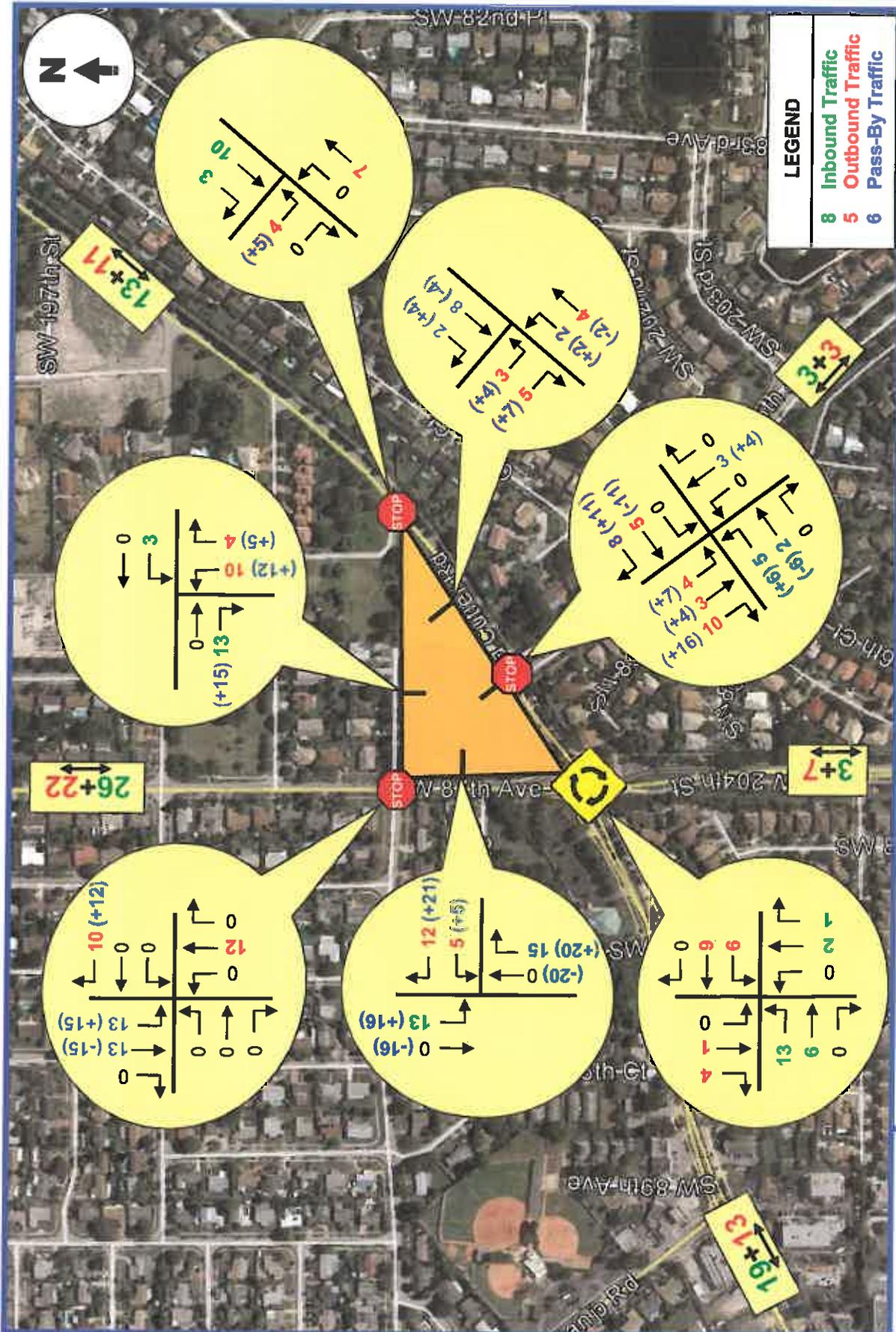


FIGURE 7
CVS Pharmacy & Mixed-Use
Cutler Bay, Florida

**New Project Traffic Assignment
PM Peak Hour**

TRAFFIC ANALYSES

This section of the study is divided into two (2) parts. The first part consists of developing the future conditions traffic volumes for the study area. The second part includes level-of-service analyses for existing and future conditions.

Future Conditions Traffic Volumes

Future, build-out year (2016) traffic volumes were developed for the project study area in the following manner:

- **Average Peak Season Conversion Factor:** Traffic data collected between February 17 and 19, 2015 was adjusted to reflect average peak season conditions. Based on FDOT's Peak Season Factor Category report (see Appendix C), an adjustment factor of 1.00 is required to convert traffic counts collected during this time period to average peak season conditions. Therefore, no adjustment to the counts is necessary.
- **Historic Growth:** Research relative to the background traffic growth in the area was conducted. FDOT maintains four (4) traffic count stations in the immediate area of the subject project. These stations are as follows:
 - Site #878205 – Old Cutler Road, 200 feet south of SW 184th Street
 - Site #878225 – SW 87th Avenue, 200 feet south of SW 184th Street
 - Site #878310 – Old Cutler Road, 200 feet south of Franjo Road
 - Site #878374 – SW 87th Avenue, 500 feet north of SW 216th Street

The historic traffic count data for these locations is presented in Appendix D. As indicated by this data, traffic volumes have been steady over the past several years. In order to assess the overall impacts with a conservative approach, a 1.0% growth rate per year was applied to all turning movements and roadway segments within the study area.

The future traffic calculations (peak season adjustments, background traffic growth, and the traffic associated with the proposed CVS Pharmacy / Mixed-Use Development) for the study intersections, driveways, and roadway segments are contained in Appendix E in tabular format. Figures 8 and 9 present the future traffic volumes for the study area including the additional traffic anticipated to be generated by the CVS Pharmacy / Mixed-Use Development project.

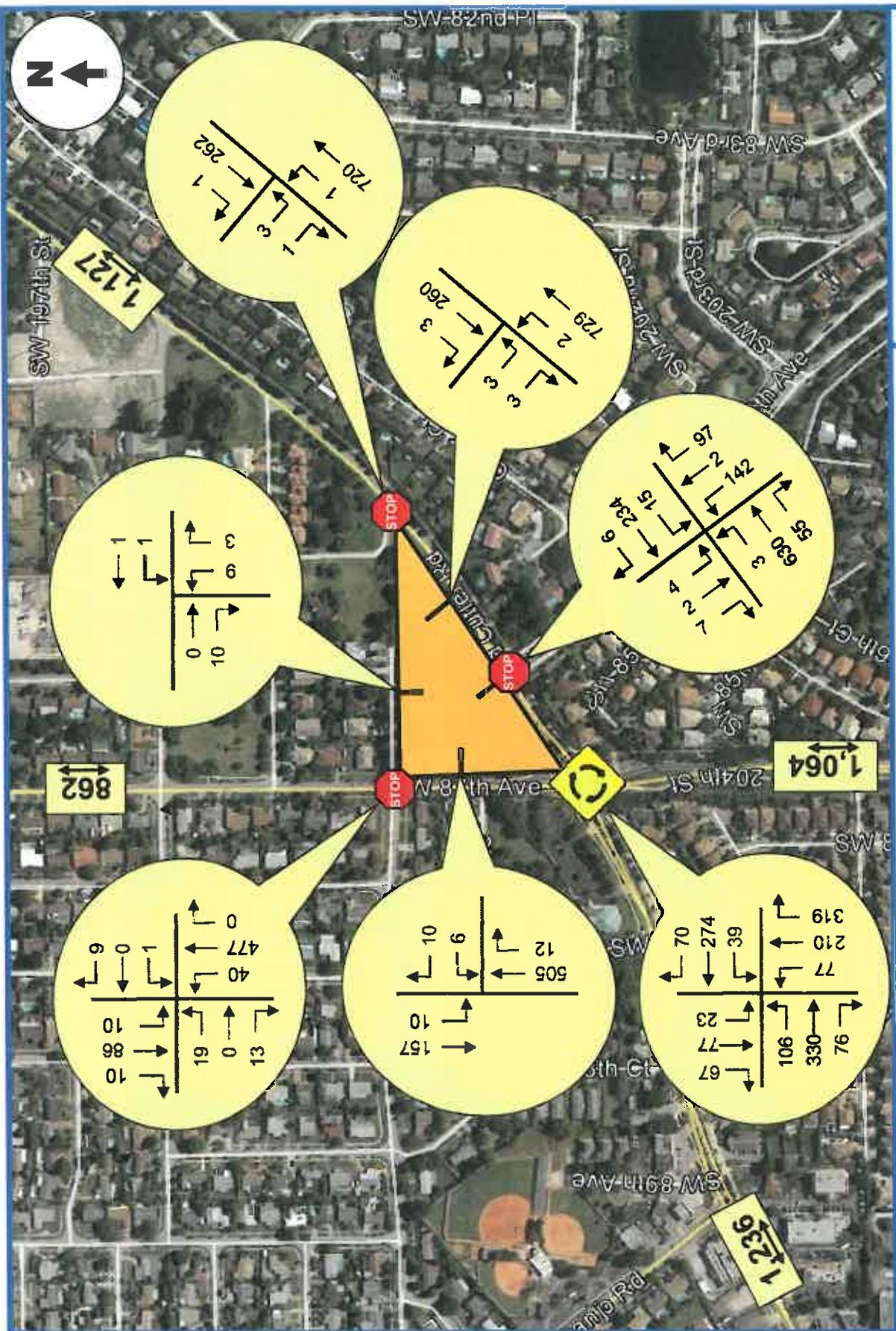


FIGURE 8
 CVS Pharmacy & Mixed-Use
 Cutler Bay, Florida

**Future (2016) AM Peak Hour
 Traffic Volumes**

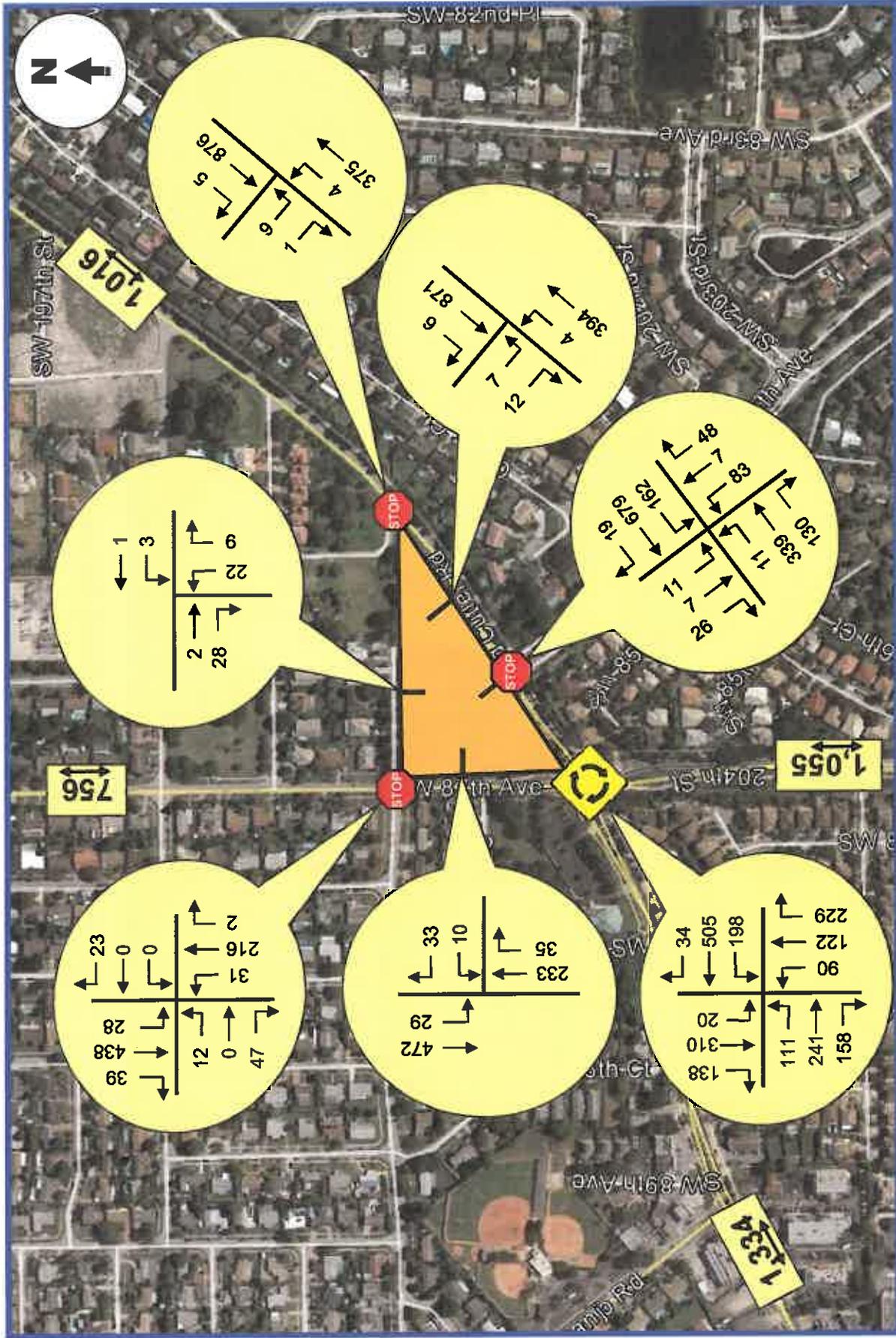


FIGURE 9
CVS Pharmacy & Mixed-Use
Cutler Bay, Florida

Future (2016) PM Peak Hour
Traffic Volumes

Level of Service (LOS) Analyses

Intersection capacity/level of service (LOS) analyses were conducted for the study intersections and project driveways. These analyses were undertaken following the capacity / level of service procedures outlined in the Highway Capacity Manual (HCM) using the SYNCHRO software. The results of these capacity analyses are summarized in Table 3 below.

Intersection	Existing (2015) Conditions		Future (2016) Conditions With Project Traffic	
	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
Old Cutler Rd & SW 87th Ave	A (9.6)	D (30.3)	A (9.9)	E (35.8)
Old Cutler Rd & SW 85th Ave *	C (20.4)	D (29.2)	C (18.0)	D (29.4)
Old Cutler Rd & SW 200th St *	A (9.9)	C (17.1)	C (16.2)	D (31.3)
SW 87th Ave & SW 200th St *	B (13.7)	B (11.8)	B (12.4)	B (12.2)
Old Cutler Rd & East Driveway *	--	--	B (12.9)	C (22.2)
SW 87th Ave & Project Driveway *	--	--	B (12.3)	B (11.5)
SW 200th St & Project Driveway *	--	--	A (8.5)	A (8.7)

Source: *Highway Capacity Manual and SYNCHRO.*

Legend: C (21.4) = LOS (Average Delay in Seconds / Vehicle)

* At stop-control intersections, the LOS on the critical side street is documented in this table. The LOS for Roundabouts is reported for the overall intersection.

As indicated in Table 3, with the exception of the intersection of Old Cutler Road and SW 87th Avenue during the PM peak hour, each the study intersections are currently operating adequately and will continue to operate at an acceptable level of service in the year 2016 with the proposed project in place. Similarly, the project driveways are projected to operate at an acceptable level of service. Concerning the intersection of Old Cutler Road and SW 87th Avenue, the reported LOS is consistent with that reported for the western roadway segment of this intersection (see page 20 of this report). According to the Miami-Dade County concurrency tables, this segment has a LOS standard of “E” and available capacity to accommodate this project. The SYNCHRO printouts of the intersection capacity analyses are contained in Appendix G.

Roadway link levels of service were evaluated in accordance with the Florida Department of Transportation’s (FDOT) 2013 Quality / Level of Service Handbook. The results of these analyses are summarized in Table 4.

Roadway Section	Existing (2015) Conditions		Future (2016) Conditions Without Project Traffic		Future (2016) Conditions With Project Traffic	
	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
Old Cutler Road - East of SW 87th Ave	D	D	D	D	D	D
Old Cutler Road - West of SW 87th Ave	D	E	D	E	D	E
SW 87th Ave - North of Old Cutler Rd	D	D	D	D	D	D
SW 87th Ave - South of Old Cutler Rd	D	D	D	D	D	D

Source: FDOT 2013 Quality / Level of Service (LOS) Handbook.

Note: As per FDOT 2013 Q/LOS Handbook, 2-lane segment, Class II (35 mph or slower posted speed limits) LOS thresholds are: LOS "C" = 627 vph, LOS "D" = 1,264 vph, and LOS "E" = 1,340 vph. These values reflect a reduction of 10% for non-state roadways and a +5% adjustment for exclusive left turn lanes.

As indicated in Table 4, with the exception of the roadway segment of Old Cutler Road west of SW 87th Avenue during the PM peak hour, each of the study roadway segments is currently operating at level of service (LOS) “D” and will continue to do so in the future build-out year with the project traffic associated with the proposed CVS Pharmacy project.

With respect to the segment of Old Cutler Road west of SW 87th Avenue, the reported LOS “E” condition is consistent with the LOS reported in the latest Miami-Dade County concurrency tables. According to this data, the concurrency LOS standard for this segment is LOS “E” and the segment has 55 peak hour trips of available capacity when considering committed developments in the area (please see Appendix F.) The impact of the CVS Pharmacy and Mixed-Use Development on this segment is less than 55 peak hour trips (excluding pass-by traffic) and the LOS will not be degraded below the acceptable standard of LOS “E”. Similarly, the available capacity on SW 87th Avenue within the project study area is reported to be 379 vehicles per hour (please see Appendix F).

SUMMARY & CONCLUSIONS

The CVS Pharmacy / Mixed-Use Development is a proposed project to be located in the northeast quadrant of the intersection at Old Cutler Road and SW 87th Avenue (Galloway Road) in the Town of Cutler Bay, Miami-Dade County, Florida. The proposed project will consist of a 15,745 square foot CVS Pharmacy with a drive-through lane, 6,365 square feet of commercial retail space, and 18 residential apartment dwelling units. Access to the subject site will be provided by two (2) full access driveways on Old Cutler Road, one (1) full access driveway on SW 87th Avenue (Galloway Road), and one (1) full access driveway located on SW 200th Street. This project will also include the extension of SW 200th Street to the east to Old Cutler Road.

The trip generation analysis indicates that the net new external trips anticipated to be generated by the proposed CVS Pharmacy & Mixed-Use Development project consists of approximately 1,158 vehicle trips during a typical weekday, 45 vehicle trips during the weekday AM peak hour (19 inbound and 26 outbound), and 120 vehicle trips during the weekday PM peak hour (64 inbound and 56 outbound).

Intersection and roadway link analyses indicate that the nearby intersections, project driveways, and nearby roadway segments will operate adequately and meet the level of service standards for the study area.

APPENDIX A

CVS Pharmacy / Mixed-Use Development Cutler Bay, Florida Site Plan

APPENDIX B
Traffic Counts

Crossroads Engineering

8320 SW 90th Street
Miami, FL 33186
786-236-2857

CLIENT: TRAFTECH
JOB NO.: 2015-007
PROJECT: OLD CUTLER RD
COUNTY: MIAMI-DADE

File Name : SW 87TH AVE @ OLD CUTLER RD
Site Code : 00000000
Start Date : 2/17/2015
Page No : 1

Groups Printed- AUTOS - HEAVY VEHICLES

Start Time	SW 87TH AVE From North						OLD CUTLER RD From East						SW 87TH AVE From South						OLD CUTLER RD From West					
	Right	Thru	Left	Peds	Left	Peds	Right	Thru	Left	Peds	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds				
07:00 AM	8	8	4	0	4	0	24	40	4	0	69	88	10	0	19	68	29	0	371					
07:15 AM	18	5	5	1	8	0	17	43	8	0	64	95	8	0	11	85	44	0	404					
07:30 AM	12	9	4	0	6	2	19	59	6	0	89	68	16	0	11	68	38	0	401					
07:45 AM	14	15	2	0	8	0	21	58	8	0	66	56	25	0	17	59	28	0	369					
Total	52	37	15	1	26	2	81	200	26	2	288	307	59	0	58	280	139	0	1545					
08:00 AM	16	23	9	0	12	0	23	77	12	0	79	57	13	0	19	52	21	0	401					
08:15 AM	17	16	5	0	10	0	10	59	10	0	96	49	21	0	19	115	29	2	448					
08:30 AM	16	22	7	0	8	0	15	72	8	0	75	45	17	0	20	99	23	1	420					
08:45 AM	17	14	4	0	5	0	17	57	5	0	80	54	12	0	21	65	18	0	364					
Total	66	75	25	0	35	0	65	265	35	0	330	205	63	0	79	331	91	3	1633					
*** BREAK ***																								
04:00 PM	28	43	12	0	39	0	18	101	39	0	46	19	17	0	25	71	17	0	436					
04:15 PM	26	36	8	0	45	0	8	130	45	0	33	28	17	0	26	68	22	0	447					
04:30 PM	17	51	12	0	51	0	14	136	51	0	50	20	18	0	28	57	28	0	482					
04:45 PM	36	56	12	0	40	1	9	96	40	1	36	33	26	0	24	55	24	0	448					
Total	107	186	44	0	175	1	49	463	175	1	165	100	78	0	103	251	91	0	1813					
05:00 PM	31	49	5	0	37	1	7	108	37	1	45	30	24	0	36	49	26	0	448					
05:15 PM	36	64	10	0	50	1	6	127	50	1	69	24	19	0	39	51	21	0	517					
05:30 PM	30	95	3	0	46	0	14	137	46	0	55	31	24	0	40	63	28	0	566					
05:45 PM	36	98	2	0	57	0	7	119	57	0	57	34	22	0	41	70	22	0	565					
Total	133	306	20	0	190	2	34	491	190	2	226	119	89	0	156	233	97	0	2096					
Grand Total	358	604	104	1	426	5	229	1419	426	5	1009	731	289	0	396	1095	418	3	7087					
Approach %	33.6	56.6	9.7	0.1	20.5	0.2	11	68.3	20.5	0.2	49.7	36	14.2	0	20.7	57.3	21.9	0.2						
Total %	5.1	8.5	1.5	0	6	0.1	3.2	20	6	0.1	14.2	10.3	4.1	0	5.6	15.5	5.9	0						
% AUTOS	354	584	104	1	422	5	226	1397	422	5	1003	723	288	0	396	1095	418	3	7019					
% AUTOS	98.9	96.7	100	100	99.1	100	98.7	98.4	98.9	99.7	100	98.9	99.7	0	100	100	100	100	99					
% HEAVY VEHICLES	4	20	0	0	4	0	3	22	4	0	6	8	1	0	0	0	0	0	68					
% HEAVY VEHICLES	1.1	3.3	0	0	0.9	0	1.3	1.6	0.9	0	0.5	1.1	0.3	0	0	0	0	0	1					

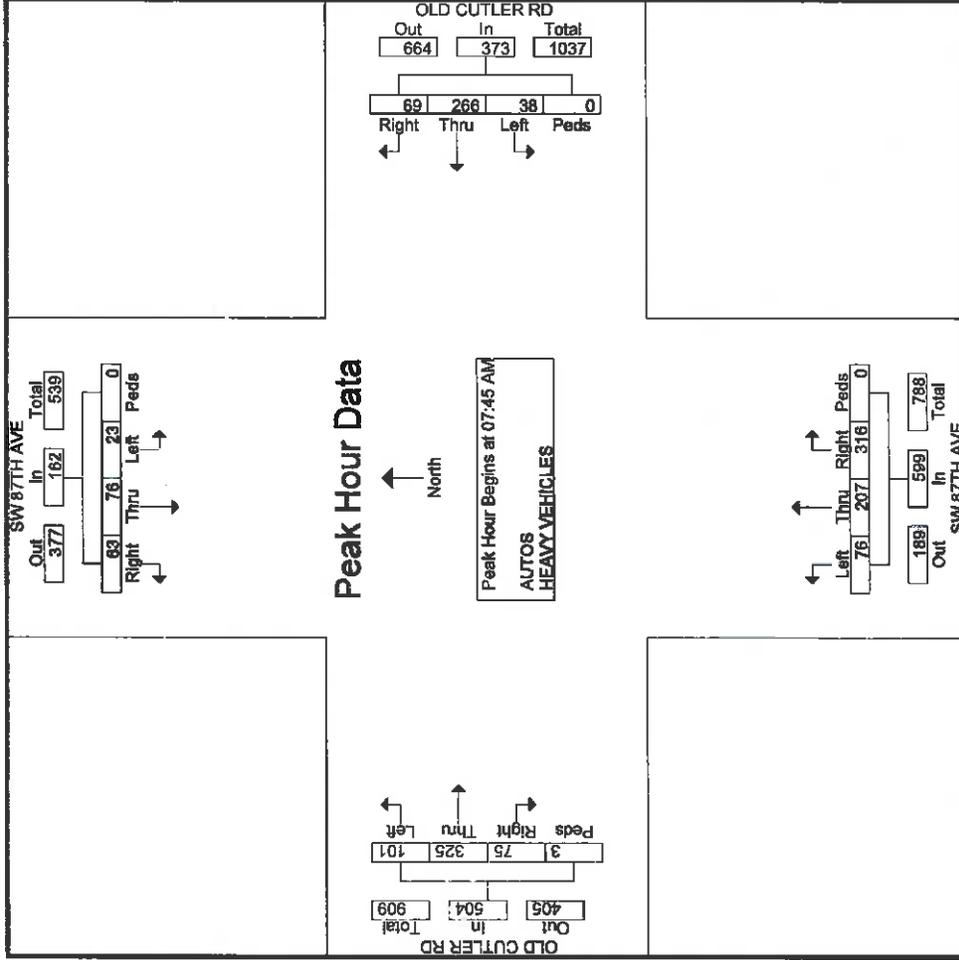
Crossroads Engineering

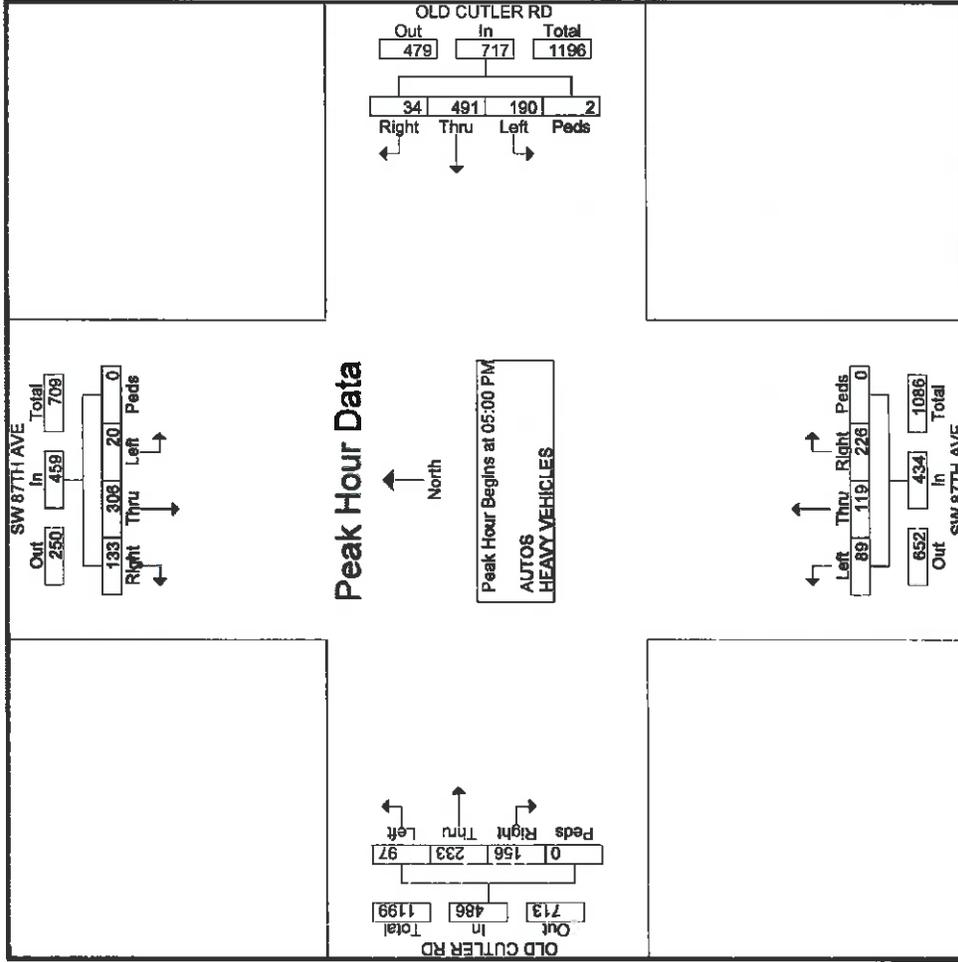
8320 SW 90th Street
Miami, FL 33186
786-236-2857

CLIENT: TRAFTECH
JOB NO.: 2015-007
PROJECT: OLD CUTLER RD
COUNTY: MIAMI-DADE

File Name : SW 87TH AVE @ OLD CUTLER RD
Site Code : 00000000
Start Date : 2/17/2015
Page No : 2

Start Time	SW 87TH AVE						OLD CUTLER RD						SW 87TH AVE						OLD CUTLER RD													
	From North			From South			From East			From West			From South			From West			From East			From West										
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																																
Peak Hour for Entire Intersection Begins at 07:45 AM																																
07:45 AM	14	15	2	0	31	21	58	8	0	87	66	56	25	0	147	17	59	28	0	104	369											
08:00 AM	16	23	9	0	48	23	77	12	0	112	79	67	13	0	149	19	52	21	0	92	401											
08:15 AM	17	16	5	0	38	10	59	10	0	79	96	49	21	0	166	19	115	29	2	165	448											
08:30 AM	16	22	7	0	45	15	72	8	0	95	75	45	17	0	137	20	99	23	1	143	420											
Total Volume	63	76	23	0	162	69	266	38	0	373	316	207	76	0	599	75	325	101	3	504	1638											
% App. Total	38.9	46.9	14.2	0	18.5	71.3	10.2	0	0	52.8	34.6	12.7	0	0	14.9	64.5	20	0.6	0.6	375	914											
PHF	.926	.826	.639	.000	.844	.750	.864	.792	.000	.833	.823	.908	.760	.000	.902	.938	.707	.871	.375	.764												





Crossroads Engineering

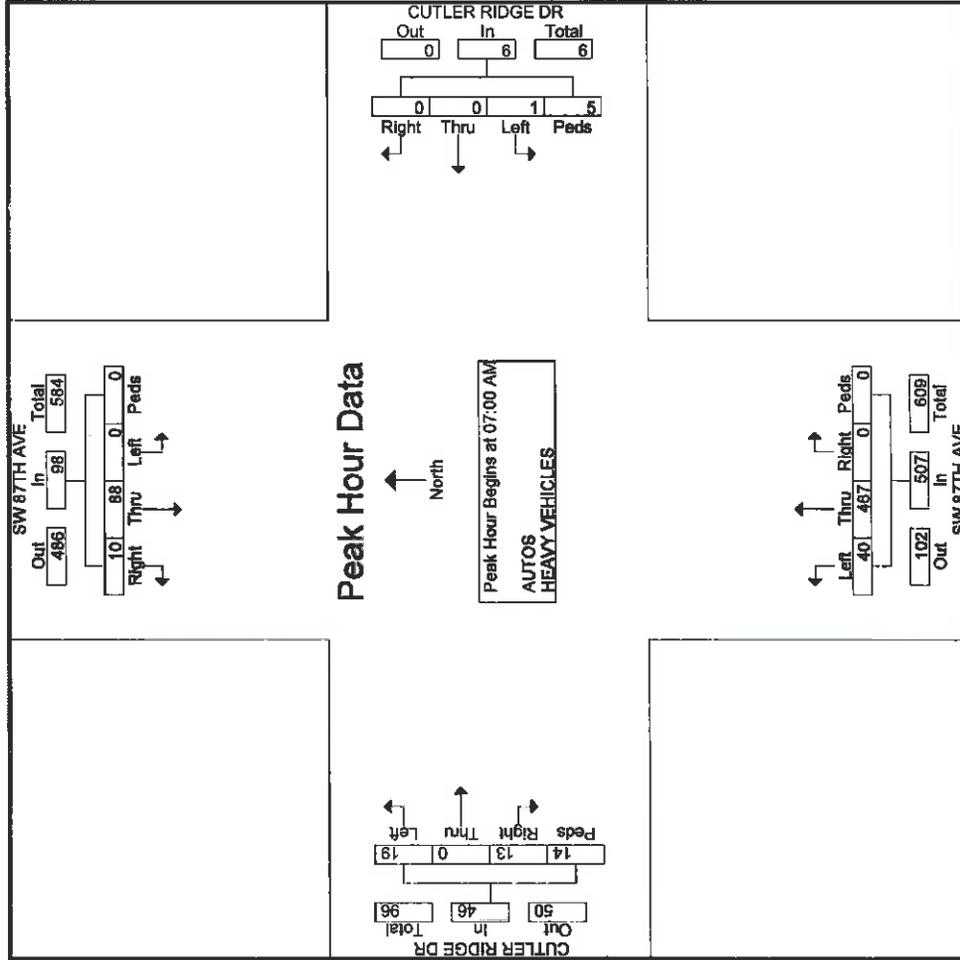
8320 SW 90th Street
Miami, FL 33186
786-236-2857

CLIENT: TRAFTECH
JOB NO.: 2015-007
PROJECT: OLD CUTLER RD
COUNTY: MIAMI-DADE

File Name : SW 87TH AVE @ CUTLER RDIGE DR
Site Code : 00000000
Start Date : 2/17/2015
Page No : 1

Groups Printed- AUTOS - HEAVY VEHICLES

Start Time	SW 87TH AVE From North						CUTLER RIDGE DR From East						SW 87TH AVE From South						CUTLER RIDGE DR From West						Int. Total
	Right	Thru	Left	Peds	Right	Thru	Right	Thru	Left	Peds	Right	Thru	Right	Thru	Left	Peds	Right	Thru	Left	Peds					
07:00 AM	1	21	0	0	0	0	0	0	1	1	1	0	137	12	0	0	2	0	4	1	180				
07:15 AM	0	24	0	0	0	0	0	0	0	2	0	0	129	11	0	0	2	0	4	0	172				
07:30 AM	5	18	0	0	0	0	0	0	0	2	0	0	108	9	0	0	5	0	4	12	163				
07:45 AM	4	25	0	0	0	0	0	0	0	0	0	93	8	0	0	4	0	7	1	142					
Total	10	88	0	0	0	0	0	0	1	5	0	467	40	0	0	13	0	19	14	657					
08:00 AM	5	46	0	0	0	0	1	0	0	2	0	94	13	0	0	4	0	5	0	170					
08:15 AM	4	32	0	0	0	0	0	0	0	0	1	83	3	0	0	4	0	4	1	134					
08:30 AM	1	34	0	0	0	0	1	0	0	1	0	60	9	0	0	9	0	5	3	123					
08:45 AM	0	29	0	0	0	0	0	0	0	3	1	73	11	3	0	6	1	8	0	135					
Total	10	141	0	0	0	0	2	0	0	6	2	310	36	3	0	23	1	22	4	562					
*** BREAK ***																									
04:00 PM	2	74	0	0	0	0	0	0	0	0	1	44	7	0	0	5	0	2	3	138					
04:15 PM	2	65	1	0	0	0	0	0	0	0	0	49	7	0	0	12	0	6	0	142					
04:30 PM	2	66	0	0	0	0	1	0	0	0	1	46	12	0	0	7	1	3	2	141					
04:45 PM	10	93	0	1	0	0	0	0	1	0	0	44	13	0	0	8	0	5	3	178					
Total	16	298	1	1	0	0	1	0	1	0	2	183	39	0	0	32	1	16	8	599					
05:00 PM	9	88	0	0	0	0	0	0	0	0	1	45	7	0	0	11	0	4	1	166					
05:15 PM	14	124	0	0	0	0	0	0	0	0	0	50	6	0	0	11	0	3	0	208					
05:30 PM	10	116	0	0	0	0	0	0	0	0	0	46	14	0	0	8	0	2	1	198					
05:45 PM	6	108	0	0	0	0	0	0	0	1	1	61	4	0	0	17	0	3	3	204					
Total	39	436	0	0	0	0	1	0	0	1	2	202	31	0	0	47	0	12	5	776					
Grand Total	75	963	1	1	0	0	4	2	2	12	6	1162	146	3	0	115	2	69	31	2594					
Approch %	7.2	92.6	0.1	0.1	0	0	20	10	10	60	0.5	88.2	11.1	0.2	53	0.9	31.8	14.3	0	0					
Total %	2.9	37.1	0	0	0	0.2	0.1	0.1	0.1	0.5	0.2	44.8	5.6	0.1	4.4	0.1	2.7	1.2	0	0					
AUTOS	74	935	1	1	0	0	4	2	2	12	6	1136	142	3	114	2	67	31	0	2532					
% AUTOS	98.7	97.1	100	100	100	100	100	100	100	100	100	97.8	97.3	100	99.1	100	97.1	100	100	97.6					
HEAVY VEHICLES	1	28	0	0	0	0	0	0	0	0	0	26	4	0	1	0	2	0	0	62					
% HEAVY VEHICLES	1.3	2.9	0	0	0	0	0	0	0	0	0	2.2	2.7	0	0.9	0	2.9	0	0	2.4					



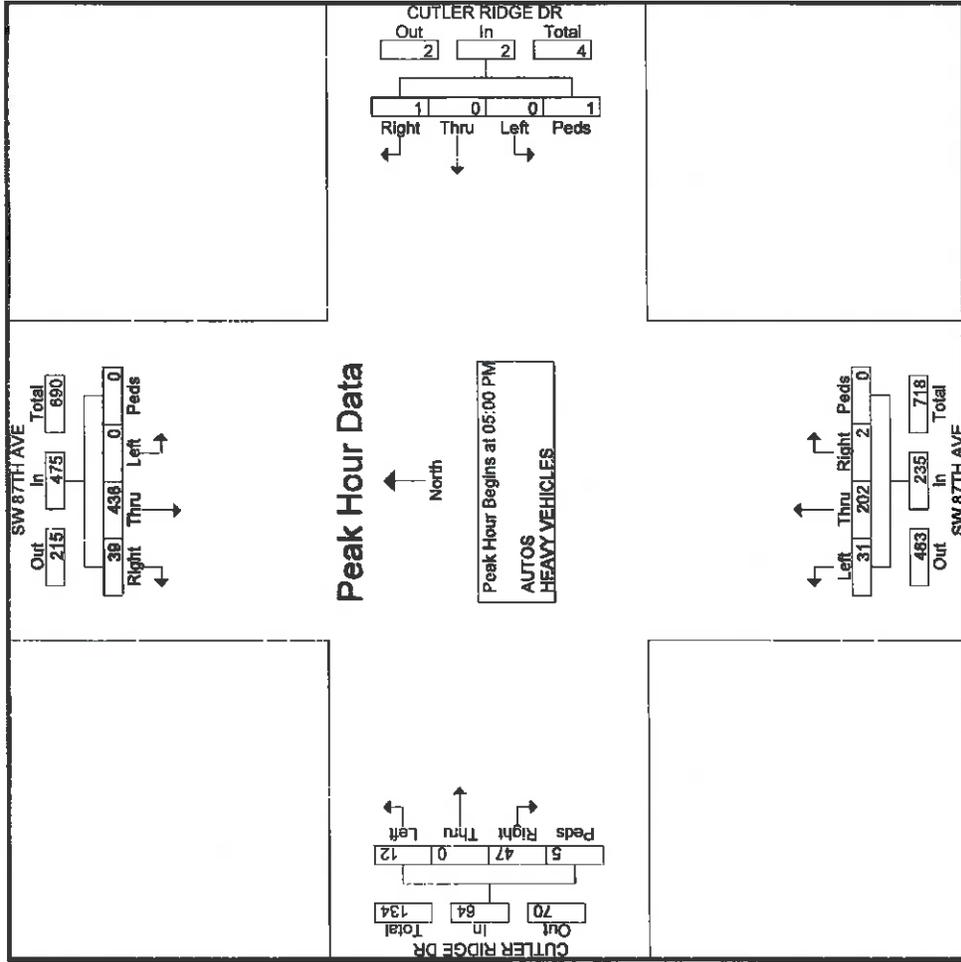
Crossroads Engineering

8320 SW 90th Street
Miami, FL 33186
786-236-2857

CLIENT: TRAFTECH
JOB NO.: 2015-007
PROJECT: OLD CUTLER RD
COUNTY: MIAMI-DADE

File Name : SW 87TH AVE @ CUTLER RDIGE DR
Site Code : 00000000
Start Date : 2/17/2015
Page No : 4

Start Time	SW 87TH AVE From North					CUTLER RIDGE DR From East					SW 87TH AVE From South					CUTLER RIDGE DR From West					
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	9	88	0	0	97	0	0	0	0	0	1	45	7	0	53	11	0	4	1	16	166
05:15 PM	14	124	0	0	138	0	0	0	0	0	0	50	6	0	56	11	0	3	0	14	208
05:30 PM	10	116	0	0	126	1	0	0	1	1	0	46	14	0	60	8	0	2	1	11	198
05:45 PM	6	108	0	0	114	0	0	0	1	1	1	61	4	0	66	17	0	3	3	23	204
Total Volume	39	436	0	0	475	1	0	0	1	2	2	202	31	0	235	47	0	12	5	64	776
% App. Total	8.2	91.8	0	0	0	50	0	0	50	0	0.9	86	13.2	0	73.4	73.4	0	18.8	7.8	696	933
PHF	.696	.879	.000	.000	.861	.250	.000	.000	.250	.500	.500	.828	.554	.000	.890	.691	.000	.750	.417	.696	.933



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File Name : SW 87TH AVE @ CUTLER RDIGE DR
Site Code : 00000000
Start Date : 2/17/2015
Page No : 1

Groups Printed- HEAVY VEHICLES

Start Time	SW 87TH AVE From North				CUTLER RIDGE DR From East				SW 87TH AVE From South				CUTLER RIDGE DR From West				Int. Total	
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds		
07:00 AM	0	2	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	7
07:15 AM	0	2	0	0	0	0	0	0	0	1	1	0	0	0	1	0	0	5
07:30 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2
07:45 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2
Total	0	6	0	0	0	0	0	0	0	8	1	0	0	0	1	0	0	16
08:00 AM	0	2	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	5
08:15 AM	1	1	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	5
08:30 AM	0	1	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	5
08:45 AM	0	3	0	0	0	0	0	0	0	2	1	0	0	1	0	0	0	8
Total	1	7	0	0	0	0	0	0	0	12	1	0	0	1	1	0	0	23
*** BREAK ***																		
04:00 PM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	3
04:15 PM	0	3	0	0	0	0	0	0	0	2	1	0	0	0	0	0	0	6
*** BREAK ***																		
04:45 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Total	0	7	0	0	0	0	0	0	0	3	1	0	0	0	0	0	0	11
05:00 PM	0	3	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	4
05:15 PM	0	2	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	3
05:30 PM	0	2	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	4
05:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	8	0	0	0	0	0	0	0	3	1	0	0	0	0	0	0	12
Grand Total	1	28	0	0	0	0	0	0	0	26	4	0	0	1	0	0	0	62
Approch %	3.4	96.6	0	0	0	0	0	0	0	86.7	13.3	0	0	33.3	0	0	0	66.7
Total %	1.6	45.2	0	0	0	0	0	0	0	41.9	6.5	0	0	1.6	0	0	0	3.2

Crossroads Engineering

8320 SW 90th Street
Miami, FL 33186
786-236-2857

CLIENT: TRAFTECH
JOB NO.: 2015-007
PROJECT: OLD CUTLER RD
COUNTY: MIAMI-DADE

File Name : SW 85TH AVE @ OLD CUTLER RD
Site Code : 00000000
Start Date : 2/17/2015
Page No : 1

Groups Printed- AUTOS - HEAVY VEHICLES

Start Time	SW 85TH AVE From North				OLD CUTLER RD From East				SW 85TH AVE From South				OLD CUTLER RD From West				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
07:00 AM	0	0	0	0	0	37	5	0	24	0	38	1	8	132	0	0	245
07:15 AM	0	0	0	0	0	36	4	0	24	0	32	2	8	146	0	0	252
07:30 AM	0	0	0	0	0	44	4	0	38	0	42	4	6	143	0	0	281
07:45 AM	0	0	0	0	0	48	5	0	34	0	41	1	9	125	0	0	263
Total	0	0	0	0	0	165	18	0	120	0	153	8	31	546	0	0	1041
08:00 AM	0	0	0	0	0	73	3	0	26	0	41	1	12	124	0	0	280
08:15 AM	0	0	0	0	0	58	5	0	25	0	26	2	9	206	0	0	331
08:30 AM	0	0	0	0	0	53	2	0	20	0	34	4	15	162	0	0	290
08:45 AM	0	0	0	0	0	50	5	1	25	0	40	2	18	133	0	0	274
Total	0	0	0	0	0	234	15	1	96	0	141	9	54	625	0	0	1175
*** BREAK ***																	
04:00 PM	0	0	0	0	0	151	16	0	11	0	26	5	26	88	0	0	323
04:15 PM	0	0	0	0	0	156	21	0	10	0	23	4	32	98	0	0	337
04:30 PM	0	0	0	0	0	178	26	0	8	0	15	1	34	63	0	0	325
04:45 PM	0	0	0	0	0	163	27	0	11	0	19	1	29	79	0	0	329
Total	0	0	0	0	0	648	90	0	40	0	83	11	114	328	0	0	1314
05:00 PM	0	0	0	0	0	157	32	0	20	0	22	5	35	61	0	0	332
05:15 PM	0	0	0	0	0	183	57	0	9	0	22	7	32	104	0	0	414
05:30 PM	0	0	0	0	0	169	42	0	12	0	22	8	25	82	0	0	360
05:45 PM	0	0	0	0	0	169	29	0	7	0	16	3	37	93	0	0	354
Total	0	0	0	0	0	678	160	0	48	0	82	23	129	340	0	0	1460
Grand Total	0	0	0	0	0	1725	283	1	304	0	459	51	328	1839	0	0	4990
Approach %	0	0	0	0	0	85.9	14.1	0	37.3	0	56.4	6.3	15.1	84.9	0	0	
Total %	0	0	0	0	0	34.6	5.7	0	6.1	0	9.2	1	6.6	36.9	0	0	
AUTOS	0	0	0	0	0	1702	282	1	303	0	452	51	325	1801	0	0	4917
% AUTOS	0	0	0	0	0	98.7	99.6	100	99.7	0	98.5	100	99.1	97.9	0	0	98.5
HEAVY VEHICLES	0	0	0	0	0	23	1	0	1	0	7	0	3	38	0	0	73
% HEAVY VEHICLES	0	0	0	0	0	1.3	0.4	0	0.3	0	1.5	0	0.9	2.1	0	0	1.5

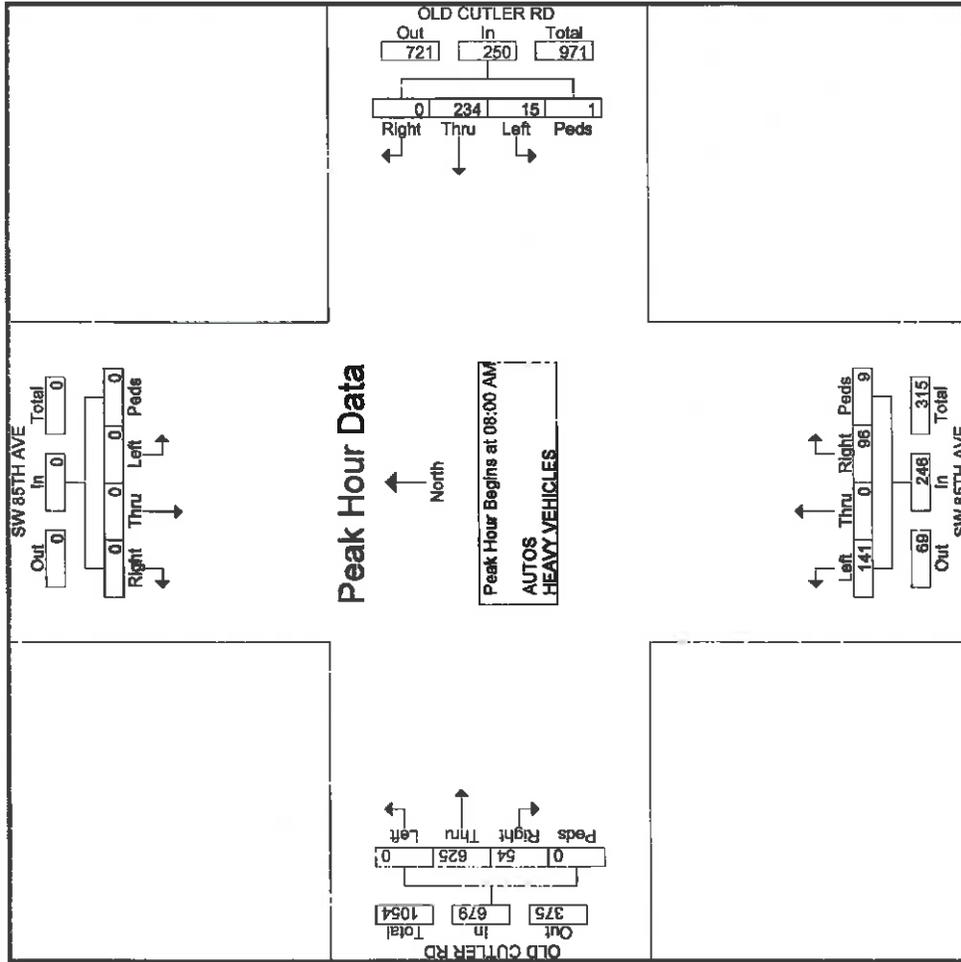
Crossroads Engineering

8320 SW 90th Street
Miami, FL 33186
786-236-2857

CLIENT: TRAFTECH
JOB NO.: 2015-007
PROJECT: OLD CUTLER RD
COUNTY: MIAMI-DADE

File Name : SW 85TH AVE @ OLD CUTLER RD
Site Code : 00000000
Start Date : 2/17/2015
Page No : 2

Start Time	SW 85TH AVE From North			OLD CUTLER RD From East			SW 85TH AVE From South			OLD CUTLER RD From West			Int. Total						
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left		Peds	App. Total				
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 08:00 AM																			
08:00 AM	0	0	0	0	73	3	0	76	26	0	41	1	68	12	124	0	0	136	280
08:15 AM	0	0	0	0	58	5	0	63	25	0	26	2	53	9	206	0	0	215	331
08:30 AM	0	0	0	0	53	2	0	55	20	0	34	4	58	15	162	0	0	177	290
08:45 AM	0	0	0	0	50	5	1	56	25	0	40	2	67	18	133	0	0	151	274
Total Volume	0	0	0	0	234	15	1	250	96	0	141	9	246	54	625	0	0	679	1175
% App. Total	0	0	0	0	93.6	6	0.4	99	39	0	57.3	3.7	904	8	92	0	0	790	887
PHF	.000	.000	.000	.000	.801	.750	.250	.822	.923	.000	.860	.563	.904	.750	.758	.000	.000	.790	.887



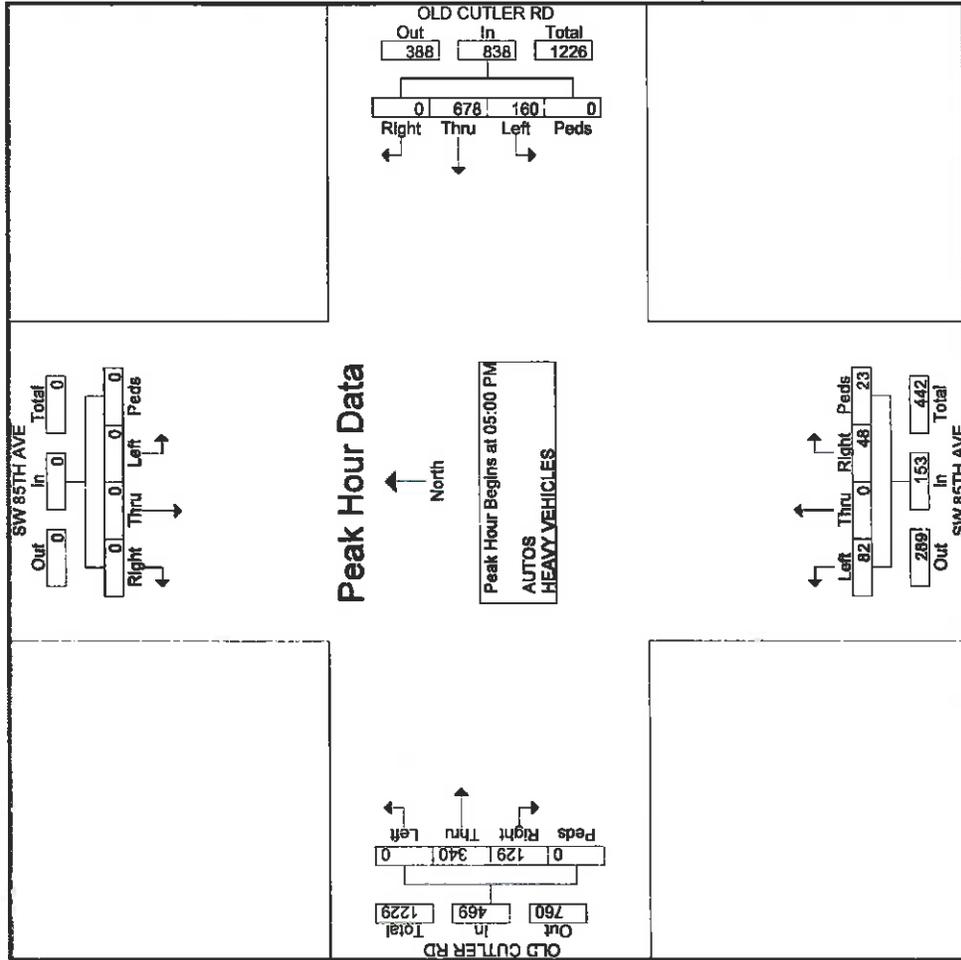
Crossroads Engineering

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CLIENT: TRAFTECH
JOB NO.: 2015-007
PROJECT: OLD CUTLER RD
COUNTY: MIAMI-DADE

File Name : SW 85TH AVE @ OLD CUTLER RD
Site Code : 00000000
Start Date : 2/17/2015
Page No : 4

Start Time	SW 85TH AVE From North				OLD CUTLER RD From East				SW 85TH AVE From South				OLD CUTLER RD From West								
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	0	0	0	0	0	0	157	32	0	189	20	0	22	5	47	35	61	0	0	96	332
05:15 PM	0	0	0	0	0	0	183	57	0	240	9	0	22	7	38	32	104	0	0	136	414
05:30 PM	0	0	0	0	0	0	169	42	0	211	12	0	22	8	42	25	82	0	0	107	360
05:45 PM	0	0	0	0	0	0	169	29	0	198	7	0	16	3	26	37	93	0	0	130	354
Total Volume	0	0	0	0	0	0	678	160	0	838	48	0	82	23	153	129	340	0	0	469	1460
% App. Total	0	0	0	0	0	0	80.9	19.1	0	31.4	0	0	53.6	15	27.5	27.5	72.5	0	0	0	882
PHF	.000	.000	.000	.000	.000	.000	.926	.702	.000	.873	.600	.000	.932	.719	.814	.872	.817	.000	.000	.862	.882



CLIENT: TRAFTECH
JOB NO.: 2015-007
PROJECT: OLD CUTLER RD
COUNTY: MIAMI-DADE

File Name : SW 200TH ST @ OLD CUTLER RD
Site Code : 00000000
Start Date : 2/17/2015
Page No : 1

Groups Printed- AUTOS - HEAVY VEHICLES

Start Time	SW 200TH ST From North			OLD CUTLER RD From East			SW 200TH ST From South			OLD CUTLER RD From West			Int. Total	
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left		Peds
07:00 AM	0	0	0	0	38	0	0	0	0	0	160	0	0	198
07:15 AM	0	0	0	0	46	0	0	0	0	0	171	0	0	217
07:30 AM	0	0	0	0	48	0	0	0	0	0	180	0	0	228
07:45 AM	0	0	0	0	54	0	0	0	0	0	148	0	0	202
Total	0	0	0	0	186	0	0	0	0	0	659	0	0	845
08:00 AM	0	0	0	0	79	0	0	0	0	0	146	0	0	225
08:15 AM	1	0	0	0	67	0	0	0	0	0	221	1	0	290
08:30 AM	0	0	0	0	59	0	0	0	0	0	179	0	0	238
08:45 AM	0	0	0	0	51	0	0	0	0	0	163	0	0	214
Total	1	0	0	0	256	0	0	0	0	0	709	1	0	967
*** BREAK ***														
04:00 PM	1	0	0	0	174	0	0	0	0	0	96	1	0	272
04:15 PM	3	0	0	0	185	0	0	0	0	0	99	3	0	290
04:30 PM	0	0	0	0	207	0	0	0	0	0	73	0	0	280
04:45 PM	0	0	0	1	181	0	0	0	0	0	81	1	0	264
Total	4	0	0	1	747	0	0	0	0	0	349	5	0	1106
05:00 PM	0	0	0	0	198	0	0	0	0	0	81	0	0	279
05:15 PM	0	0	0	0	251	0	0	0	0	0	105	1	0	357
05:30 PM	1	0	0	2	202	0	0	0	0	0	85	2	0	292
05:45 PM	0	0	0	0	206	0	0	0	0	0	93	1	0	300
Total	1	0	0	2	857	0	0	0	0	0	364	4	0	1228
Grand Total	6	0	0	3	2046	0	0	0	0	0	2081	10	0	4146
Approach %	100	0	0	0.1	99.9	0	0	0	0	0	99.5	0.5	0	
Total %	0.1	0	0	0.1	49.3	0	0	0	0	0	50.2	0.2	0	
AUTOS	6	0	0	3	2019	0	0	0	0	0	2048	10	0	4086
% AUTOS	100	0	0	100	98.7	0	0	0	0	0	98.6	100	0	98.6
HEAVY VEHICLES	0	0	0	0	27	0	0	0	0	0	33	0	0	60
% HEAVY VEHICLES	0	0	0	0	1.3	0	0	0	0	0	1.6	0	0	1.4

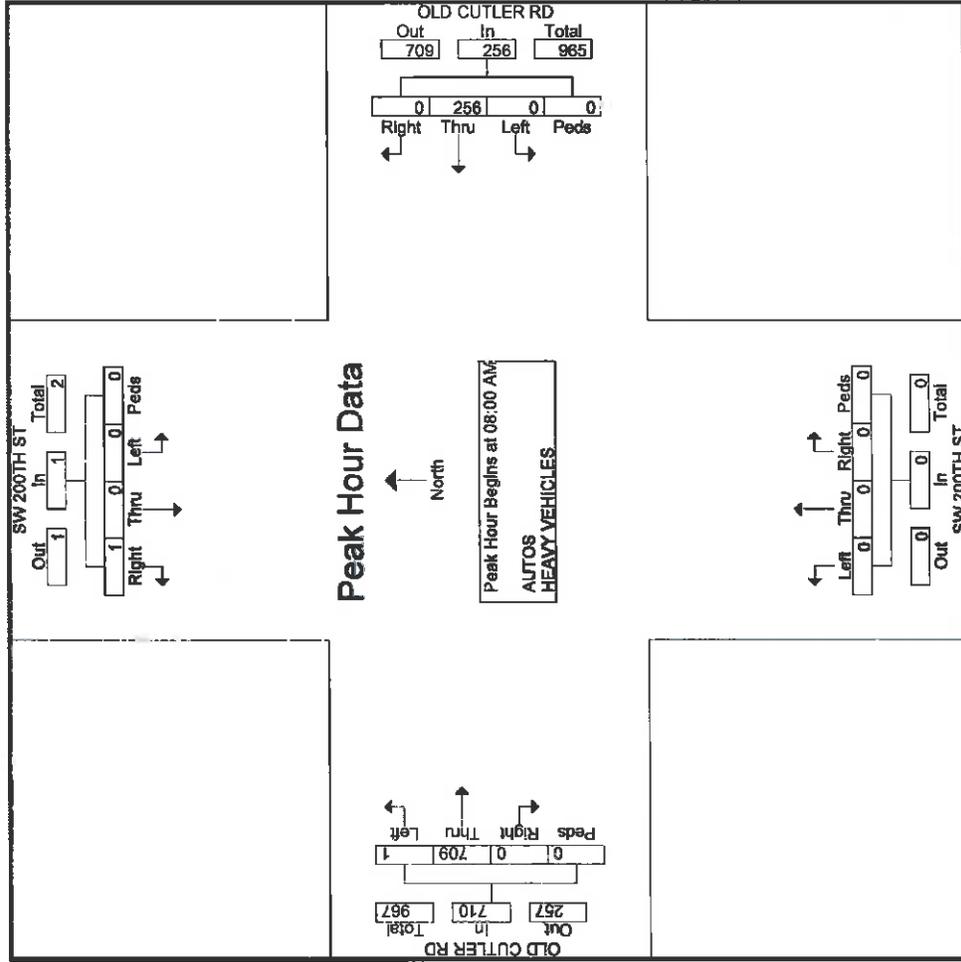
Crossroads Engineering

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786-236-2857

CLIENT: TRAFTECH
JOB NO.: 2015-007
PROJECT: OLD CUTLER RD
COUNTY: MIAMI-DADE

File Name : SW 200TH ST @ OLD CUTLER RD
Site Code : 00000000
Start Date : 2/17/2015
Page No : 2

Start Time	SW 200TH ST From North			OLD CUTLER RD From East			SW 200TH ST From South			OLD CUTLER RD From West			Int. Total					
	Right	Thru	Left	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total		Right	Thru	Left	Peds	App. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 08:00 AM																		
08:00 AM	0	0	0	0	0	0	79	0	0	0	0	0	0	0	0	0	0	146
08:15 AM	1	0	0	0	67	0	67	0	0	0	0	0	0	0	221	1	0	222
08:30 AM	0	0	0	0	59	0	59	0	0	0	0	0	0	0	179	0	0	179
08:45 AM	0	0	0	0	51	0	51	0	0	0	0	0	0	0	163	0	0	163
Total Volume	1	0	0	0	256	0	256	0	0	0	0	0	0	0	708	1	0	710
% App. Total	100	0	0	0	100	0	100	0	0	0	0	0	0	0	99.9	0.1	0	100
PHF	.250	.000	.000	.000	.250	.000	.810	.000	.810	.000	.000	.000	.000	.000	.802	.250	.000	.800



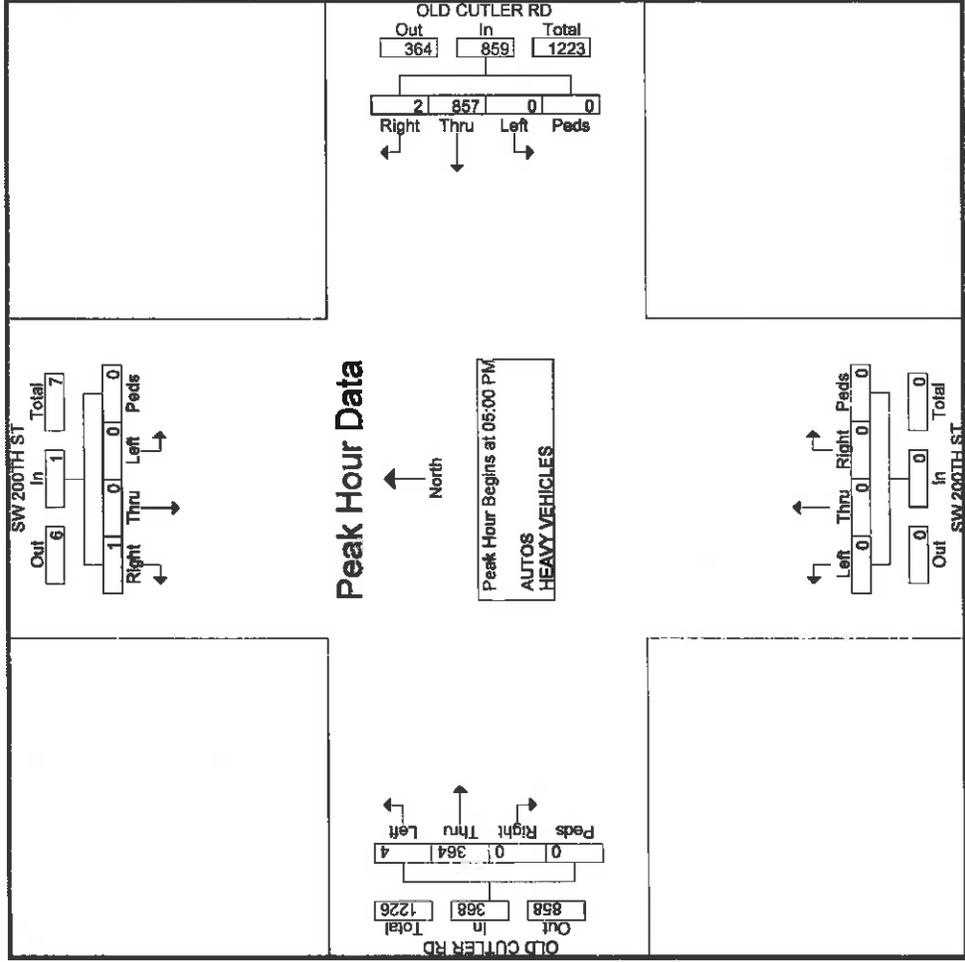
Crossroads Engineering

8320 SW 90th Street
Miami, FL 33186
786-236-2857

CLIENT: TRAFTECH
JOB NO.: 2015-007
PROJECT: OLD CUTLER RD
COUNTY: MIAMI-DADE

File Name : SW 200TH ST @ OLD CUTLER RD
Site Code : 00000000
Start Date : 2/17/2015
Page No : 4

Start Time	SW 200TH ST From North				OLD CUTLER RD From East				SW 200TH ST From South				OLD CUTLER RD From West				Int. Total					
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right		Thru	Left	Peds	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																						
Peak Hour for Entire Intersection Begins at 05:00 PM																						
05:00 PM	0	0	0	0	0	0	198	0	0	198	0	0	0	0	0	0	0	81	0	0	81	279
05:15 PM	0	0	0	0	0	0	251	0	0	251	0	0	0	0	0	0	0	105	1	0	106	357
05:30 PM	1	0	0	0	1	2	202	0	0	204	0	0	0	0	0	0	0	85	2	0	87	292
05:45 PM	0	0	0	0	0	0	206	0	0	206	0	0	0	0	0	0	0	93	1	0	94	300
Total Volume	1	0	0	0	1	2	857	0	0	859	0	0	0	0	0	0	0	364	4	0	368	1228
% App. Total	100	0	0	0	0.2	250	99.8	0	0	0	0	0	0	0	0	0	0	98.9	1.1	0	100	122.8
PHF	.250	.000	.000	.000	.250	.250	.854	.000	.000	.856	.000	.000	.000	.000	.000	.000	.000	.867	.500	.000	.868	.860



Crossroads Engineering

CLIENT: TRAFTECH
 JOB NO: 2015-007
 PROJECT: CUTLER BAY CVS
 COUNTY: MIAMI-DADE

8320 SW 90TH St Miami, FL 33156 786-236-2857

OLD CUTLER RD EAST OF SW 87TH AVE
 OLD CUTLER RD EAST OF SW 87TH AVE

Date Start: 17-Feb-15
 Date End: 19-Feb-15

Start Time	17-Feb-15 Tue	WB		Hour Totals		EB		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		17	97			13	86				
12:15		18	111			4	85				
12:30		18	72			4	95				
12:45		15	71	68	351	5	93	26	359	94	710
01:00		6	76			3	93				
01:15		9	88			10	99				
01:30		7	101			8	99				
01:45		8	120	30	385	5	67	26	358	56	743
02:00		8	97			2	86				
02:15		5	101			1	85				
02:30		7	118			4	96				
02:45		5	123	25	439	5	104	12	371	37	810
03:00		1	134			5	86				
03:15		4	147			3	90				
03:30		1	159			5	109				
03:45		3	158	9	598	7	90	20	375	29	973
04:00		3	153			3	94				
04:15		4	178			10	112				
04:30		4	196			10	84				
04:45		5	166	16	693	26	89	49	379	65	1072
05:00		6	193			37	92				
05:15		6	218			38	106				
05:30		12	188			79	95				
05:45		14	187	38	786	128	101	282	394	320	1180
06:00		14	208			187	91				
06:15		24	203			201	108				
06:30		30	186			166	90				
06:45		32	188	100	785	170	86	724	375	824	1160
07:00		36	185			159	79				
07:15		45	171			161	60				
07:30		54	142			196	60				
07:45		48	106	183	604	150	63	666	262	849	866
08:00		79	125			146	58				
08:15		51	93			206	48				
08:30		74	91	254	397	185	44	695	195	949	592
08:45		50	88			158	45				
09:00		69	76			159	39				
09:15		58	65			161	38				
09:30		48	49			119	40				
09:45		47	66	222	256	119	27	558	144	780	400
10:00		43	46			108	29				
10:15		69	51			92	30				
10:30		59	45			78	26				
10:45		68	45	239	187	92	30	370	115	609	302
11:00		74	25			74	22				
11:15		70	49			95	11				
11:30		78	26			88	16				
11:45		82	21	304	121	74	10	331	59	635	180
Total		1488	5602			3759	3386			5247	8988
Percent		21.0%	79.0%			52.6%	47.4%			36.9%	63.1%
AM Peak		11:00				06:00					
Vol.		304				724					
P.H.F.		0.927				0.900					
PM Peak			05:15				03:30				
Vol.			801				405				
P.H.F.			0.919				0.904				

Crossroads Engineering

8320 SW 90TH St Miami, FL 33156 786-236-2857

CLIENT: TRAFTECH
 JOB NO: 2015-007
 PROJECT: CUTLER BAY CVS
 COUNTY: MIAMI-DADE

OLD CUTLER RD EAST OF SW 87TH AVE
 OLD CUTLER RD EAST OF SW 87TH AVE

Date Start: 17-Feb-15
 Date End: 19-Feb-15

Start Time	18-Feb-15 Wed	WB		Hour Totals		EB		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		12	84			18	68				
12:15		13	93			20	85				
12:30		11	88			21	72				
12:45		5	84	41	349	15	68	74	293	115	642
01:00		8	87			13	66				
01:15		3	107			4	79				
01:30		6	106			7	78				
01:45		3	115	20	415	8	94	32	317	52	732
02:00		1	129			5	101				
02:15		2	106			8	76				
02:30		1	106			2	105				
02:45		3	107	7	448	5	105	20	387	27	835
03:00		4	119			5	105				
03:15		2	122			3	103				
03:30		1	112			5	98				
03:45		5	129	12	482	3	113	16	419	28	901
04:00		5	98			3	131				
04:15		11	108			7	118				
04:30		9	122			8	126				
04:45		13	108	38	436	10	132	28	507	66	943
05:00		16	127			20	133				
05:15		18	111			27	125				
05:30		49	88			22	139				
05:45		81	100	164	426	79	117	148	514	312	940
06:00		75	123			99	144				
06:15		125	136			121	138				
06:30		96	93			102	138				
06:45		108	101	404	453	117	123	439	543	843	996
07:00		99	90			99	136				
07:15		98	78			121	117				
07:30		122	84			122	122				
07:45		132	60	451	312	120	98	462	473	913	785
08:00		122	85			123	85				
08:15		152	60			129	99				
08:30		160	65			131	90				
08:45		129	68	563	278	139	81	522	355	1085	633
09:00		104	51			115	57				
09:15		126	47			72	60				
09:30		95	53			64	61				
09:45		92	51	417	202	57	63	308	241	725	443
10:00		105	50			55	49				
10:15		91	57			55	57				
10:30		73	34			61	46				
10:45		80	23	349	164	53	28	224	180	573	344
11:00		84	24			59	34				
11:15		83	15			66	28				
11:30		66	25			70	36				
11:45		81	19	314	83	59	22	254	120	568	203
Total		2780	4048			2527	4349			5307	8397
Percent		40.7%	59.3%			36.8%	63.2%			38.7%	61.3%
AM Peak		07:45				08:00					
Vol.		566				522					
P.H.F.		0.884				0.939					
PM Peak			03:00				06:00				
Vol.			482				543				
P.H.F.			0.934				0.943				

Crossroads Engineering

CLIENT: TRAFTECH
 JOB NO: 2015-007
 PROJECT: CUTLER BAY CVS
 COUNTY: MIAMI-DADE

8320 SW 90TH St Miami, FL 33156 786-236-2857

OLD CUTLER RD EAST OF SW 87TH AVE
 OLD CUTLER RD EAST OF SW 87TH AVE

Date Start: 17-Feb-15
 Date End: 19-Feb-15

Start Time	19-Feb-15 Thu	WB		Hour Totals		EB		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		10	91			20	87				
12:15		11	72			32	85				
12:30		6	82			11	83				
12:45		7	101	34	346	8	80	71	335	105	681
01:00		8	76			14	89				
01:15		6	92			9	90				
01:30		4	101			6	92				
01:45		4	103	22	372	5	83	34	354	56	726
02:00		1	111			5	105				
02:15		2	98			1	74				
02:30		3	114			5	103				
02:45		3	125	9	448	1	116	12	398	21	846
03:00		3	123			4	107				
03:15		2	111			2	114				
03:30		3	120			2	114				
03:45		2	113	10	467	4	121	12	456	22	923
04:00		5	120			8	142				
04:15		7	97			5	139				
04:30		17	136			9	146				
04:45		18	106	47	459	12	135	34	562	81	1021
05:00		24	101			13	155				
05:15		31	103			22	126				
05:30		50	116			44	125				
05:45		78	105	183	425	69	134	148	540	331	965
06:00		132	99			88	143				
06:15		96	104			123	153				
06:30		120	105			101	167				
06:45		123	111	471	419	111	141	423	604	894	1023
07:00		113	116			109	118				
07:15		112	84			102	108				
07:30		122	89			119	126				
07:45		116	92	463	381	118	116	448	468	911	849
08:00		153	101			126	99				
08:15		193	93			120	94				
08:30		175	62			119	77				
08:45		130	55	651	311	111	66	476	336	1127	647
09:00		120	58			99	74				
09:15		95	62			97	78				
09:30		105	48			67	68				
09:45		97	48	417	216	79	64	342	284	759	500
10:00		107	48			87	55				
10:15		103	30			76	54				
10:30		78	44			71	46				
10:45		94	39	382	161	81	33	315	188	697	349
11:00		81	26			79	36				
11:15		103	17			88	32				
11:30		91	18			64	32				
11:45		84	17	359	78	81	19	312	119	671	197
Total		3048	4083			2627	4644			5675	8727
Percent		42.7%	57.3%			36.1%	63.9%			39.4%	60.6%
AM Peak		08:00				07:30					
Vol.		651				483					
P.H.F.		0.843				0.958					
PM Peak			02:45				06:00				
Vol.			479				604				
P.H.F.			0.958				0.904				
Total		7316	13733			8913	12379			16229	26112
Percent		34.8%	65.2%			41.9%	58.1%			38.3%	61.7%
ADT		ADT 6,008				ADT 6,008					

Crossroads Engineering

8320 SW 90TH St Miami, FL 33156 786-236-2857

CLIENT: TRAFTECH
 JOB NO: 2015-007
 PROJECT: CVS CUTLER BAY
 COUNTY: MIAMI-DADE

OLD CUTLER RD WEST OF SW 87TH AVE
 OLD CUTLER RD WEST OF SW 87TH AVE

Date Start: 17-Feb-15
 Date End: 19-Feb-15

Start Time	17-Feb-15 Tue	EB		Hour Totals		WB		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		20	98			18	120				
12:15		16	110			16	144				
12:30		7	125			17	122				
12:45		11	118	54	451	6	94	57	480	111	931
01:00		8	130			8	103				
01:15		17	129			9	132				
01:30		5	137			3	130				
01:45		7	114	37	510	10	120	30	485	67	995
02:00		4	102			11	132				
02:15		6	133			7	127				
02:30		8	124			9	144				
02:45		5	129	23	488	3	139	30	542	53	1030
03:00		3	115			3	155				
03:15		2	124			4	161				
03:30		7	131			2	169				
03:45		1	121	13	491	7	156	16	641	29	1132
04:00		3	107			3	159				
04:15		8	123			4	175				
04:30		7	103			13	180				
04:45		10	135	28	468	6	169	26	683	54	1151
05:00		20	107			14	179				
05:15		26	140			13	184				
05:30		52	113			19	186				
05:45		67	142	165	502	25	168	71	717	236	1219
06:00		102	133			30	185				
06:15		110	122			36	194				
06:30		127	125			58	196				
06:45		123	156	462	536	46	191	170	766	632	1302
07:00		126	140			63	167				
07:15		141	153			82	180				
07:30		134	131			97	137				
07:45		133	147	534	571	102	116	344	600	878	1171
08:00		131	101			111	130				
08:15		181	106			101	103				
08:30		152	97			109	103				
08:45		129	87	593	391	92	96	413	432	1006	823
09:00		123	82			105	74				
09:15		125	90			108	67				
09:30		114	80			84	61				
09:45		105	68	467	320	90	70	387	272	854	592
10:00		117	62			83	62				
10:15		92	67			105	59				
10:30		92	56			97	52				
10:45		111	39	412	224	95	40	380	213	792	437
11:00		99	38			102	37				
11:15		129	38			126	31				
11:30		93	32			117	28				
11:45		117	24	438	132	139	22	484	118	922	250
Total		3226	5084			2408	5949			5634	11033
Percent		38.8%	61.2%			28.8%	71.2%			33.8%	66.2%
AM Peak		07:45				11:00					
Vol.		597				484					
P.H.F.		0.825				0.871					
PM Peak			06:45				06:00				
Vol.			580				766				
P.H.F.			0.929				0.977				

Crossroads Engineering

CLIENT: TRAFTECH
 JOB NO: 2015-007
 PROJECT: CVS CUTLER BAY
 COUNTY: MIAMI-DADE

8320 SW 90TH St Miami, FL 33156 786-236-2857

OLD CUTLER RD WEST OF SW 87TH AVE
 OLD CUTLER RD WEST OF SW 87TH AVE

Date Start: 17-Feb-15
 Date End: 19-Feb-15

Start Time	18-Feb-15 Wed	EB		Hour Totals		WB		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		20	118			23	122				
12:15		18	109			21	128				
12:30		16	105			14	136				
12:45		12	117	66	449	16	108	74	494	140	943
01:00		6	103			11	111				
01:15		10	114			9	116				
01:30		6	150			7	128				
01:45		3	122	25	489	7	131	34	486	59	975
02:00		5	124			6	181				
02:15		11	124			8	139				
02:30		4	111			2	151				
02:45		3	142	23	501	1	159	17	630	40	1131
03:00		3	132			4	167				
03:15		6	144			4	153				
03:30		6	132			1	174				
03:45		5	118	20	526	3	168	12	662	32	1188
04:00		2	130			3	171				
04:15		9	166			5	185				
04:30		7	144			11	170				
04:45		10	135	28	575	8	188	27	714	55	1289
05:00		10	147			10	180				
05:15		22	184			9	186				
05:30		57	145			19	187				
05:45		86	155	175	631	25	161	63	714	238	1345
06:00		114	137			40	173				
06:15		172	152			44	197				
06:30		137	157			61	201				
06:45		150	147	573	593	82	179	227	750	800	1343
07:00		127	166			98	191				
07:15		165	132			85	164				
07:30		148	140			123	150				
07:45		181	119	621	557	131	134	437	639	1058	1196
08:00		169	117			142	117				
08:15		190	123			152	128				
08:30		192	120			173	119				
08:45		160	106	711	466	133	111	600	475	1311	941
09:00		141	80			112	84				
09:15		115	95			110	79				
09:30		125	89			87	93				
09:45		111	69	492	333	97	72	406	328	898	661
10:00		100	58			83	61				
10:15		96	54			93	62				
10:30		115	65			84	57				
10:45		91	43	402	220	99	44	359	224	761	444
11:00		86	45			83	41				
11:15		93	23			112	30				
11:30		108	31			98	43				
11:45		100	16	387	115	98	28	391	142	778	257
Total		3523	5455			2647	6258			6170	11713
Percent		39.2%	60.8%			29.7%	70.3%			34.5%	65.5%
AM Peak		07:45				08:00					
Vol.		732				600					
P.H.F.		0.953				0.867					
PM Peak			05:00				06:15				
Vol.			631				768				
P.H.F.			0.857				0.955				

Crossroads Engineering

8320 SW 90TH St Miami, FL 33156 786-236-2857

CLIENT: TRAFTECH
 JOB NO: 2015-007
 PROJECT: CVS CUTLER BAY
 COUNTY: MIAMI-DADE

OLD CUTLER RD WEST OF SW 87TH AVE
 OLD CUTLER RD WEST OF SW 87TH AVE

Date Start: 17-Feb-15
 Date End: 19-Feb-15

Start Time	19-Feb-15 Thu	EB		Hour Totals		WB		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		28	96			24	130				
12:15		22	101			22	119				
12:30		11	102			12	110				
12:45		11	126		72	9	106	67	465	139	890
01:00		17	112			12	125				
01:15		11	108			7	136				
01:30		9	125			14	125				
01:45		10	121		47	5	115	38	501	85	967
02:00		6	133			6	163				
02:15		2	126			4	124				
02:30		4	118			5	128				
02:45		5	147		17	4	156	19	571	36	1095
03:00		2	139			7	160				
03:15		7	148			4	172				
03:30		5	156			4	176				
03:45		6	154		20	2	164	17	672	37	1269
04:00		2	130			4	171				
04:15		7	157			5	190				
04:30		6	149			15	176				
04:45		10	157		25	9	168	33	705	58	1298
05:00		11	125			11	184				
05:15		27	131			12	183				
05:30		46	144			22	193				
05:45		82	147		166	29	195	74	755	240	1302
06:00		128	137			45	183				
06:15		150	171			52	186				
06:30		144	170			59	184				
06:45		144	158		566	80	190	236	743	802	1379
07:00		138	163			80	186				
07:15		155	152			97	160				
07:30		154	129			134	160				
07:45		172	118		619	121	162	432	668	1051	1230
08:00		165	101			146	148				
08:15		212	117			159	134				
08:30		180	99			142	105				
08:45		157	54		714	152	82	599	469	1313	840
09:00		124	0			114	97				
09:15		109	0			104	93				
09:30		111	1			94	69				
09:45		122	0		466	1	74	408	333	874	334
10:00		98	0			107	88				
10:15		102	0			111	52				
10:30		77	0			96	53				
10:45		102	0		379	0	34	409	227	788	227
11:00		97	0			87	41				
11:15		93	0			111	34				
11:30		111	0			91	35				
11:45		105	0		406	0	30	391	140	797	140
Total		3497	4722			2723	6249			6220	10971
Percent		42.5%	57.5%			30.3%	69.7%			36.2%	63.8%
AM Peak		07:45				08:00					
Vol.		729				599					
P.H.F.		0.860				0.942					
PM Peak			06:15				05:30				
Vol.			662				757				
P.H.F.			0.968				0.971				
Total		10246	15261			7778	18456			18024	33717
Percent		40.2%	59.8%			29.6%	70.4%			34.8%	65.2%

ADT ADT 10,570 AADT 10,570

Crossroads Engineering

CLIENT: TRAFTECH
 JOB NO: 2015-007
 PROJECT: CUTLER BAY CVS
 COUNTY: MIAMI-DADE

8320 SW 90TH St Miami, FL 33156 786-236-2857

SW 87TH AVE NORTH OF OLD CUTLER RD
 SW 87TH AVE NORTH OF OLD CUTLER RD

Date Start: 17-Feb-15
 Date End: 19-Feb-15

Start Time	17-Feb-15 Tue	SB		Hour Totals		NB		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		8	50			9	43				
12:15		13	53			1	48				
12:30		9	54			2	58				
12:45		8	57	38	214	4	47	16	196	54	410
01:00		4	50			5	58				
01:15		6	46			4	57				
01:30		5	49			4	58				
01:45		6	55	21	200	4	46	17	219	38	419
02:00		5	59			0	52				
02:15		3	58			1	52				
02:30		1	68			2	48				
02:45		0	60	9	245	0	54	3	206	12	451
03:00		1	77			3	49				
03:15		0	65			1	57				
03:30		2	86			2	69				
03:45		0	71	3	299	6	52	12	227	15	526
04:00		2	76			3	52				
04:15		1	71			7	54				
04:30		5	69			4	52				
04:45		3	99	11	315	12	61	26	219	37	534
05:00		2	97			6	56				
05:15		3	113			15	62				
05:30		12	124			14	56				
05:45		12	117	29	451	28	61	63	235	92	686
06:00		27	125			35	53				
06:15		20	123			79	52				
06:30		19	93			105	62				
06:45		24	101	90	442	111	53	330	220	420	662
07:00		24	93			146	53				
07:15		28	73			141	58				
07:30		35	78			113	39				
07:45		28	54	115	298	101	28	501	178	616	476
08:00		53	70			100	40				
08:15		40	56			83	43				
08:30		47	62			69	34				
08:45		36	48	176	236	91	40	343	157	519	393
09:00		40	34			75	27				
09:15		33	54			58	20				
09:30		35	38			62	27				
09:45		49	39	157	165	41	24	236	98	393	263
10:00		39	46			36	18				
10:15		46	31			48	13				
10:30		40	21			53	8				
10:45		26	24	151	122	49	26	186	65	337	187
11:00		44	17			53	10				
11:15		44	13			49	22				
11:30		39	12			37	11				
11:45		59	8	186	50	57	10	196	53	382	103
Total		986	3037			1929	2073			2915	5110
Percent		24.5%	75.5%			48.2%	51.8%			36.3%	63.7%
AM Peak		11:00				06:45					
Vol.		186				511					
P.H.F.		0.788				0.875					
PM Peak			05:30				04:45				
Vol.			489				235				
P.H.F.			0.978				0.948				

Crossroads Engineering

8320 SW 90TH St Miami, FL 33156 786-236-2857

CLIENT: TRAFTECH
 JOB NO: 2015-007
 PROJECT: CUTLER BAY CVS
 COUNTY: MIAMI-DADE

SW 87TH AVE NORTH OF OLD CUTLER RD
 SW 87TH AVE NORTH OF OLD CUTLER RD

Date Start: 17-Feb-15
 Date End: 19-Feb-15

Start Time	18-Feb-15		SB		Hour Totals		NB		Hour Totals		Combined Totals	
	Wed		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00			15	67			6	41				
12:15			6	48			3	52				
12:30			4	47			5	56				
12:45			12	61	37	223	7	61	21	210	58	433
01:00			3	47			4	56				
01:15			5	54			3	65				
01:30			4	51			1	81				
01:45			6	78	18	230	0	70	8	272	26	502
02:00			2	82			1	64				
02:15			1	62			1	59				
02:30			4	62			3	40				
02:45			2	83	9	289	2	53	7	216	16	505
03:00			3	77			5	65				
03:15			2	84			1	67				
03:30			2	90			2	72				
03:45			2	83	9	334	1	53	9	257	18	591
04:00			1	95			4	72				
04:15			3	112			4	60				
04:30			3	91			5	71				
04:45			3	118	10	416	6	58	19	261	29	677
05:00			6	93			8	77				
05:15			5	126			12	57				
05:30			12	94			22	59				
05:45			14	140	37	453	32	66	74	259	111	712
06:00			27	126			71	65				
06:15			24	94			129	74				
06:30			21	91			164	71				
06:45			27	81	99	392	179	68	543	278	642	670
07:00			43	80			167	69				
07:15			49	78			186	47				
07:30			51	80			171	54				
07:45			56	71	199	309	218	39	742	209	941	518
08:00			62	58			206	57				
08:15			95	54			132	30				
08:30			85	73			119	25				
08:45			77	63	319	248	74	37	531	149	850	397
09:00			45	47			63	18				
09:15			53	57			64	30				
09:30			35	46			62	25				
09:45			40	40	173	190	57	15	246	88	419	278
10:00			37	32			52	22				
10:15			35	23			37	18				
10:30			32	21			51	12				
10:45			38	20	142	96	51	13	191	65	333	161
11:00			42	15			40	12				
11:15			43	16			37	10				
11:30			35	8			35	5				
11:45			31	13	151	52	44	7	156	34	307	86
Total			1203	3232			2547	2298			3750	5530
Percent			27.1%	72.9%			52.6%	47.4%			40.4%	59.6%
AM Peak			08:00				07:15					
Vol.			319				781					
P.H.F.			0.839				0.896					
PM Peak				05:15				06:15				
Vol.				486				282				
P.H.F.				0.868				0.870				

Crossroads Engineering

CLIENT: TRAFTECH
 JOB NO: 2015-007
 PROJECT: CUTLER BAY CVS
 COUNTY: MIAMI-DADE

8320 SW 90TH St Miami, FL 33156 786-236-2857

SW 87TH AVE NORTH OF OLD CUTLER RD

SW 87TH AVE NORTH OF OLD CUTLER RD

Date Start: 17-Feb-15
 Date End: 19-Feb-15

Start Time	19-Feb-15 Thu		SB		Hour Totals		NB		Hour Totals		Combined Totals		
	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	
12:00	8	58					2	53					
12:15	8	48					3	47					
12:30	5	48					5	47					
12:45	3	44			24	198	1	51	11	198	35	396	
01:00	4	39					3	44					
01:15	9	51					5	34					
01:30	3	58					0	58					
01:45	2	58			18	206	3	57	11	193	29	399	
02:00	0	62					1	73					
02:15	0	54					1	63					
02:30	2	57					1	69					
02:45	1	67			3	240	0	84	3	289	6	529	
03:00	0	95					1	89					
03:15	1	107					1	86					
03:30	2	79					2	68					
03:45	2	89			5	370	3	64	7	307	12	677	
04:00	2	108					2	54					
04:15	1	96					4	77					
04:30	7	87					5	51					
04:45	2	100			12	391	4	75	15	257	27	648	
05:00	2	125					7	66					
05:15	6	103					14	44					
05:30	3	123					22	63					
05:45	15	112			26	463	30	69	73	242	99	705	
06:00	18	124					62	73					
06:15	32	126					110	65					
06:30	48	116					173	65					
06:45	26	104			124	470	173	59	518	262	642	732	
07:00	46	83					182	58					
07:15	50	99					161	65					
07:30	57	86					190	53					
07:45	69	73			222	341	198	29	731	205	953	546	
08:00	77	58					162	48					
08:15	71	57					156	35					
08:30	61	62					106	33					
08:45	65	35			274	212	102	17	526	133	800	345	
09:00	52	41					54	13					
09:15	57	43					45	18					
09:30	41	52					62	26					
09:45	41	49			191	185	49	24	210	81	401	266	
10:00	39	23					47	31					
10:15	29	35					51	13					
10:30	36	26					50	21					
10:45	35	20			139	104	37	9	185	74	324	178	
11:00	38	22					52	10					
11:15	43	16					46	11					
11:30	39	12					41	10					
11:45	46	20			166	70	50	4	189	35	355	105	
Total	1204	3250					2479	2276				3683	5526
Percent	27.0%	73.0%					52.1%	47.9%				40.0%	60.0%
AM Peak	07:45						07:00						
Vol.	278						731						
P.H.F.	0.903						0.923						
PM Peak		05:30						02:30					
Vol.		485						328					
P.H.F.		0.962						0.921					
Total	3393	9519					6955	6647				10348	16166
Percent	26.3%	73.7%					51.1%	48.9%				39.0%	61.0%

ADT

ADT 7,137

AADT 7,137

Crossroads Engineering

8320 SW 90TH St Miami, FL 33156 786-236-2857

CLIENT: TRAFTECH
 JOB NO: 2015-007
 PROJECT: CUTLER BAY CVS
 COUNTY: MIAMI-DADE

SW 87TH AVE SOUTH OF OLD CUTLER RD
 SW 87TH AVE SOUTH OF OLD CUTLER RD

Date Start: 17-Feb-15
 Date End: 19-Feb-15

Start Time	17-Feb-15 Tue	NB		Hour Totals		SB		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		29	81			4	44				
12:15		20	83			1	62				
12:30		15	98			0	38				
12:45		29	104	93	366	0	41	5	185	98	551
01:00		19	102			0	49				
01:15		13	78			0	56				
01:30		11	89			0	54				
01:45		12	79	55	348	0	49	0	208	55	556
02:00		11	88			0	40				
02:15		4	102			0	47				
02:30		7	109			1	51				
02:45		7	71	29	370	0	86	1	224	30	594
03:00		6	76			0	88				
03:15		8	60			1	91				
03:30		7	83			0	120				
03:45		9	81	30	300	0	108	1	407	31	707
04:00		9	86			0	95				
04:15		12	73			0	105				
04:30		19	68			0	137				
04:45		18	69	58	296	0	151	0	488	58	784
05:00		24	82			0	146				
05:15		35	62			0	157				
05:30		42	85			2	186				
05:45		67	101	168	330	4	175	6	664	174	994
06:00		108	81			8	201				
06:15		133	105			6	167				
06:30		153	103			10	151				
06:45		152	87	546	376	14	158	38	677	584	1053
07:00		154	82			16	161				
07:15		165	76			18	157				
07:30		132	60			39	126				
07:45		129	54	580	272	19	114	92	558	672	830
08:00		122	51			33	119				
08:15		135	56			36	110				
08:30		103	59			49	91				
08:45		115	58	475	224	44	68	162	388	637	612
09:00		108	50			53	78				
09:15		115	33			28	72				
09:30		80	39			42	65				
09:45		97	38	400	160	26	51	149	266	549	426
10:00		86	26			35	65				
10:15		82	32			37	50				
10:30		71	24			44	56				
10:45		82	35	321	117	33	39	149	210	470	327
11:00		79	20			30	24				
11:15		87	14			57	38				
11:30		97	22			38	33				
11:45		85	14	348	70	83	18	208	113	556	183
Total		3103	3229			811	4388			3914	7617
Percent		49.0%	51.0%			15.6%	84.4%			33.9%	66.1%
AM Peak		06:30				11:00					
Vol.		624				208					
P.H.F.		0.945				0.627					
PM Peak			05:45				05:30				
Vol.			390				729				
P.H.F.			0.894				0.907				

Crossroads Engineering

CLIENT: TRAFTECH
 JOB NO: 2015-007
 PROJECT: CUTLER BAY CVS
 COUNTY: MIAMI-DADE

8320 SW 90TH St Miami, FL 33156 786-236-2857

SW 87TH AVE SOUTH OF OLD CUTLER RD
 SW 87TH AVE SOUTH OF OLD CUTLER RD

Date Start: 17-Feb-15
 Date End: 19-Feb-15

Start Time	18-Feb-15 Wed	NB		Hour Totals		SB		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		10	79			17	61				
12:15		6	76			21	80				
12:30		5	55			18	68				
12:45		2	53	23	263	15	55	71	264	94	527
01:00		2	46			10	71				
01:15		1	67			6	69				
01:30		3	109			7	66				
01:45		3	93	9	315	4	73	27	279	36	594
02:00		2	110			8	82				
02:15		3	74			4	72				
02:30		0	64			3	96				
02:45		4	62	9	310	2	110	17	360	26	670
03:00		4	128			2	92				
03:15		3	77			1	106				
03:30		0	104			6	93				
03:45		3	92	10	401	1	88	10	379	20	780
04:00		7	98			3	133				
04:15		5	77			4	129				
04:30		12	86			5	125				
04:45		16	93	40	354	3	145	15	532	55	886
05:00		35	88			5	156				
05:15		27	91			9	185				
05:30		38	82			6	174				
05:45		83	102	183	363	11	169	31	684	214	1047
06:00		136	64			19	211				
06:15		218	100			25	177				
06:30		239	102			26	167				
06:45		199	96	792	362	37	157	107	712	899	1074
07:00		213	105			36	141				
07:15		304	66			24	137				
07:30		282	73			35	131				
07:45		398	67	1197	311	27	113	122	522	1319	833
08:00		352	47			31	128				
08:15		247	39			76	113				
08:30		212	70			62	104				
08:45		183	39	994	195	59	109	228	454	1222	649
09:00		91	55			62	96				
09:15		99	36			57	81				
09:30		68	58			49	78				
09:45		89	32	347	181	42	73	210	328	557	509
10:00		55	34			51	58				
10:15		68	25			58	59				
10:30		77	24			55	42				
10:45		79	17	279	100	53	26	217	185	496	285
11:00		67	21			59	34				
11:15		44	13			66	20				
11:30		62	17			48	37				
11:45		59	10	232	61	52	23	225	114	457	175
Total		4115	3216			1280	4813			5395	8029
Percent		56.1%	43.9%			21.0%	79.0%			40.2%	59.8%
AM Peak		07:15				08:15					
Vol.		1336				259					
P.H.F.		0.839				0.852					
PM Peak			06:15				05:15				
Vol.			403				739				
P.H.F.			0.960				0.876				

Crossroads Engineering

8320 SW 90TH St Miami, FL 33156 786-236-2857

CLIENT: TRAFTECH
 JOB NO: 2015-007
 PROJECT: CUTLER BAY CVS
 COUNTY: MIAMI-DADE

SW 87TH AVE SOUTH OF OLD CUTLER RD
 SW 87TH AVE SOUTH OF OLD CUTLER RD

Date Start: 17-Feb-15
 Date End: 19-Feb-15

Start Time	19-Feb-15 Thu	NB		Hour Totals		SB		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		6	80			21	71				
12:15		12	76			20	69				
12:30		1	62			14	56				
12:45		7	81	26	299	15	61	70	257	96	556
01:00		2	55			13	75				
01:15		2	57			14	63				
01:30		5	72			6	70				
01:45		3	86	12	270	2	58	35	266	47	536
02:00		2	104			6	65				
02:15		2	83			5	62				
02:30		4	73			5	66				
02:45		5	73	13	333	2	114	18	307	31	640
03:00		6	129			3	86				
03:15		4	86			3	130				
03:30		2	96			0	116				
03:45		2	83	14	394	0	117	6	449	20	843
04:00		5	71			5	144				
04:15		9	91			2	132				
04:30		14	100			0	143				
04:45		18	123	46	385	8	117	15	536	61	921
05:00		29	80			6	160				
05:15		34	81			9	167				
05:30		57	139			10	153				
05:45		79	109	199	409	11	174	36	654	235	1063
06:00		163	101			14	188				
06:15		195	134			28	147				
06:30		227	92			27	208				
06:45		235	93	820	420	35	166	104	709	924	1129
07:00		203	95			26	155				
07:15		226	120			34	127				
07:30		259	68			31	137				
07:45		358	48	1046	331	26	150	117	569	1163	900
08:00		339	70			36	131				
08:15		256	68			43	101				
08:30		198	47			60	96				
08:45		173	46	966	231	58	92	197	420	1163	651
09:00		116	47			50	100				
09:15		91	46			49	83				
09:30		80	41			58	87				
09:45		86	43	373	177	37	66	194	336	567	513
10:00		83	30			52	68				
10:15		83	22			54	43				
10:30		76	33			49	47				
10:45		65	22	307	107	68	37	223	195	530	302
11:00		59	12			63	48				
11:15		51	17			48	46				
11:30		60	15			56	34				
11:45		70	15	240	59	60	18	227	146	467	205
Total		4062	3415			1242	4844			5304	8259
Percent		54.3%	45.7%			20.4%	79.6%			39.1%	60.9%
AM Peak		07:30				10:45					
Vol.		1212				235					
P.H.F.		0.846				0.864					
PM Peak			05:30				05:45				
Vol.			483				717				
P.H.F.			0.869				0.862				
Total		11280	9860			3333	14045			14613	23905
Percent		53.4%	46.6%			19.2%	80.8%			37.9%	62.1%
ADT		ADT 9,926				ADT 9,926					

APPENDIX C

Peak Season Conversion Factor

2014 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL
 CATEGORY: 8701 MIAMI-DADE SOUTH

WEEK	DATES	SF	MOCF: 0.99 PSCF
1	01/01/2014 - 01/04/2014	0.98	0.99
2	01/05/2014 - 01/11/2014	1.01	1.02
3	01/12/2014 - 01/18/2014	1.03	1.04
4	01/19/2014 - 01/25/2014	1.02	1.03
5	01/26/2014 - 02/01/2014	1.01	1.02
6	02/02/2014 - 02/08/2014	1.00	1.01
7	02/09/2014 - 02/15/2014	1.00	1.01
8	02/16/2014 - 02/22/2014	0.99	1.00
* 9	02/23/2014 - 03/01/2014	0.99	1.00
*10	03/02/2014 - 03/08/2014	0.99	1.00
*11	03/09/2014 - 03/15/2014	0.99	1.00
*12	03/16/2014 - 03/22/2014	0.99	1.00
*13	03/23/2014 - 03/29/2014	0.99	1.00
*14	03/30/2014 - 04/05/2014	0.99	1.00
*15	04/06/2014 - 04/12/2014	0.99	1.00
*16	04/13/2014 - 04/19/2014	0.99	1.00
*17	04/20/2014 - 04/26/2014	0.99	1.00
*18	04/27/2014 - 05/03/2014	0.99	1.00
*19	05/04/2014 - 05/10/2014	0.99	1.00
*20	05/11/2014 - 05/17/2014	0.99	1.00
*21	05/18/2014 - 05/24/2014	0.99	1.00
22	05/25/2014 - 05/31/2014	1.00	1.01
23	06/01/2014 - 06/07/2014	1.01	1.02
24	06/08/2014 - 06/14/2014	1.01	1.02
25	06/15/2014 - 06/21/2014	1.02	1.03
26	06/22/2014 - 06/28/2014	1.02	1.03
27	06/29/2014 - 07/05/2014	1.03	1.04
28	07/06/2014 - 07/12/2014	1.03	1.04
29	07/13/2014 - 07/19/2014	1.04	1.05
30	07/20/2014 - 07/26/2014	1.03	1.04
31	07/27/2014 - 08/02/2014	1.02	1.03
32	08/03/2014 - 08/09/2014	1.02	1.03
33	08/10/2014 - 08/16/2014	1.01	1.02
34	08/17/2014 - 08/23/2014	1.00	1.01
35	08/24/2014 - 08/30/2014	1.01	1.02
36	08/31/2014 - 09/06/2014	1.01	1.02
37	09/07/2014 - 09/13/2014	1.01	1.02
38	09/14/2014 - 09/20/2014	1.01	1.02
39	09/21/2014 - 09/27/2014	1.01	1.02
40	09/28/2014 - 10/04/2014	1.00	1.01
41	10/05/2014 - 10/11/2014	1.00	1.01
42	10/12/2014 - 10/18/2014	0.99	1.00
43	10/19/2014 - 10/25/2014	0.99	1.00
44	10/26/2014 - 11/01/2014	1.00	1.01
45	11/02/2014 - 11/08/2014	1.00	1.01
46	11/09/2014 - 11/15/2014	1.00	1.01
47	11/16/2014 - 11/22/2014	1.00	1.01
48	11/23/2014 - 11/29/2014	1.00	1.01
49	11/30/2014 - 12/06/2014	0.99	1.00
50	12/07/2014 - 12/13/2014	0.99	1.00
51	12/14/2014 - 12/20/2014	0.98	0.99
52	12/21/2014 - 12/27/2014	1.01	1.02
53	12/28/2014 - 12/31/2014	1.03	1.04

* PEAK SEASON

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APPENDIX D
Historic Traffic Counts

FLORIDA DEPARTMENT OF TRANSPORTATION
 TRANSPORTATION STATISTICS OFFICE
 2014 HISTORICAL AADT REPORT

COUNTY: 87 - MIAMI-DADE

SITE: 8205 - OLD CUTLER RD, 200' SOUTH OF SW 184TH STREET

YEAR	AADT	DIRECTION 1	DIRECTION 2	* K FACTOR	D FACTOR	T FACTOR
2014	14400	S	7400	9.00	59.30	17.40
2013	14400	F	S 7400	9.00	58.90	16.20
2012	14400	C	N 7400	9.00	59.70	16.00

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
 S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; F = FOURTH YEAR ESTIMATE
 V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
 *K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

FLORIDA DEPARTMENT OF TRANSPORTATION
 TRANSPORTATION STATISTICS OFFICE
 2014 HISTORICAL AADT REPORT

COUNTY: 87 - MIAMI-DADE

SITE: 8225 - SW 87TH AVE, 200' SOUTH OF SW 184TH STREET

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2014	8400 S	N 4200	S 4200	9.00	59.30	17.40
2013	8400 F	N 4200	S 4200	9.00	58.90	16.20
2012	8400 C	N 4200	S 4200	9.00	59.70	16.00

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
 S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; F = FOURTH YEAR ESTIMATE
 V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
 *K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

FLORIDA DEPARTMENT OF TRANSPORTATION
 TRANSPORTATION STATISTICS OFFICE
 2014 HISTORICAL AADT REPORT

COUNTY: 87 - MIAMI-DADE

SITE: 8310 - OLD CUTLER RD, 200' SOUTH OF FRANJO RD

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2014	16000 S	N 8200	S 7800	9.00	59.30	17.40
2013	16200 F	N 8300	S 7900	9.00	58.90	16.20
2012	16200 C	N 8300	S 7900	9.00	59.70	16.00

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
 S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; F = FOURTH YEAR ESTIMATE
 V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
 *K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

FLORIDA DEPARTMENT OF TRANSPORTATION
 TRANSPORTATION STATISTICS OFFICE
 2014 HISTORICAL AADT REPORT

COUNTY: 87 - MIAMI-DADE

SITE: 8374 - SW 87 AVE, 500 FT N OF SW 216TH ST, CUTLER RIDGE (2011 OFFSYS)

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2014	8600 F	N 3500	S 5100	9.00	59.30	15.30
2013	8600 C	N 3500	S 5100	9.00	58.90	16.20
2012	4800 C	N 0	S 0	9.00	59.70	16.00

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
 S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; F = FOURTH YEAR ESTIMATE
 V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
 *K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

APPENDIX E

Future Traffic Volumes Spreadsheets

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

**Old Cutler Road & SW 87th Avenue
AM Peak Hour**

Description	SW 87th Ave Northbound			SW 87th Ave Southbound			Old Cutler Rd Eastbound			Old Cutler Rd Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (2/17/2015) Season Adjustment Factor	76 1.00	207 1.00	316 1.00	23 1.00	76 1.00	63 1.00	101 1.00	325 1.00	75 1.00	38 1.00	266 1.00	69 1.00
2015 Peak Season Traffic	76	207	316	23	76	63	101	325	75	38	266	69
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
2016 Background Traffic	77	209	319	23	77	64	102	328	76	38	269	70
New Project Trips		1				3	4	2		1	5	
2016 Total Traffic	77	210	319	23	77	67	106	330	76	39	274	70

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Old Cutler Road & SW 87th Avenue
PM Peak Hour

Description	SW 87th Ave Northbound			SW 87th Ave Southbound			Old Cutler Rd Eastbound			Old Cutler Rd Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (2/17/2015) Season Adjustment Factor	89 1.00	119 1.00	226 1.00	20 1.00	306 1.00	133 1.00	97 1.00	233 1.00	156 1.00	190 1.00	491 1.00	34 1.00
2015 Peak Season Traffic	89	119	226	20	306	133	97	233	156	190	491	34
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
2016 Background Traffic	90	120	228	20	309	134	98	235	158	192	496	34
New Project Trips		2	1		1	4		6		6	9	
2016 Total Traffic	90	122	229	20	310	138	111	241	158	198	505	34

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Old Cutler Road & SW 85th Avenue
AM Peak Hour

Description	SW 85th Ave Northbound			Project Driveway Southbound			Old Cutler Rd Eastbound			Old Cutler Rd Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (2/17/2015) Season Adjustment Factor	141	0	96	0	0	0	0	625	54	15	234	0
	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
2015 Peak Season Traffic	141	0	96	0	0	0	0	625	54	15	234	0
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
2016 Background Traffic	142	0	97	0	0	0	0	631	55	15	236	0
New Project Trips		2		4	2	7	3	-1			-2	6
2016 Total Traffic	142	2	97	4	2	7	3	630	55	15	234	6

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Old Cutler Road & SW 85th Avenue
PM Peak Hour

Description	SW 85th Ave Northbound			Project Driveway Southbound			Old Cutler Rd Eastbound			Old Cutler Rd Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (2/17/2015) Season Adjustment Factor	82	0	48	0	0	0	0	340	129	160	678	0
	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
2015 Peak Season Traffic	82	0	48	0	0	0	0	340	129	160	678	0
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
2016 Background Traffic	83	0	48	0	0	0	0	343	130	162	685	0
New Project Trips		7		11	7	26	11	-4			-6	19
2016 Total Traffic	83	7	48	11	7	26	11	339	130	162	679	19

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Old Cutler Road & SW 200th Street
AM Peak Hour

Description	Northbound			SW 200th St Southbound			Old Cutler Rd Eastbound			Old Cutler Rd Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (2/17/2015) Season Adjustment Factor	0 1.00	0 1.00	0 1.00	0 1.00	0 1.00	1 1.00	1 1.00	709 1.00	0 1.00	0 1.00	256 1.00	0 1.00
2015 Peak Season Traffic	0	0	0	0	0	1	1	709	0	0	256	0
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
2016 Background Traffic	0	0	0	0	0	1	1	716	0	0	259	0
New Project Trips				3				4			3	1
2016 Total Traffic	0	0	0	3	0	1	1	720	0	0	262	1

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

**Old Cutler Road & SW 200th Street
PM Peak Hour**

Description	Northbound			SW 200th St Southbound			Old Cutler Rd Eastbound			Old Cutler Rd Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (2/17/2015) Season Adjustment Factor	0	0	0	0	0	1	4	364	0	0	857	2
	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
2015 Peak Season Traffic	0	0	0	0	0	1	4	364	0	0	857	2
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
2016 Background Traffic	0	0	0	0	0	1	4	368	0	0	866	2
New Project Trips				9				7			10	3
2016 Total Traffic	0	0	0	9	0	1	4	375	0	0	876	5

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

**SW 87th Avenue & SW 200th Street
AM Peak Hour**

Description	SW 87th Ave Northbound			SW 87th Ave Southbound			SW 200th St Eastbound			SW 200th St Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (2/17/2015) Season Adjustment Factor	40	467	0	0	88	10	19	0	13	1	0	0
	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
2015 Peak Season Traffic	40	467	0	0	88	10	19	0	13	1	0	0
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
2016 Background Traffic	40	472	0	0	89	10	19	0	13	1	0	0
New Project Trips		5		10	-3							9
2016 Total Traffic	40	477	0	10	86	10	19	0	13	1	0	9

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

**SW 87th Avenue & SW 200th Street
PM Peak Hour**

Description	SW 87th Ave Northbound			SW 87th Ave Southbound			SW 200th St Eastbound			SW 200th St Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (2/17/2015) Season Adjustment Factor	31 1.00	202 1.00	2 1.00	0 1.00	436 1.00	39 1.00	12 1.00	0 1.00	47 1.00	0 1.00	0 1.00	1 1.00
2015 Peak Season Traffic	31	202	2	0	436	39	12	0	47	0	0	1
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
2016 Background Traffic	31	204	2	0	440	39	12	0	47	0	0	1
New Project Trips		12		28	-2							22
2016 Total Traffic	31	216	2	28	438	39	12	0	47	0	0	23

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Old Cutler Road & East Driveway
AM Peak Hour

Description	Northbound			East Driveway Southbound			Old Cutler Rd Eastbound			Old Cutler Rd Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (2/17/2015) Season Adjustment Factor	0 1.00	0 1.00	0 1.00	0 1.00	0 1.00	0 1.00	0 1.00	721 1.00	0 1.00	0 1.00	257 1.00	0 1.00
2015 Peak Season Traffic	0	0	0	0	0	0	0	721	0	0	257	0
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
2016 Background Traffic	0	0	0	0	0	0	0	728	0	0	260	0
New Project Trips				3		3		2	1			3
2016 Total Traffic	0	0	0	3	0	3	2	729	0	0	260	3

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

**Old Cutler Road & East Driveway
PM Peak Hour**

Description	Northbound		East Driveway Southbound		Old Cutler Rd Eastbound		Old Cutler Rd Westbound		
	Left	Right	Left	Right	Left	Right	Left	Right	
Existing Traffic (2/17/2015) Season Adjustment Factor	0 1.00	0 1.00	0 1.00	0 1.00	0 1.00	388 1.00	0 1.00	858 1.00	0 1.00
2015 Peak Season Traffic	0	0	0	0	0	388	0	858	0
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
2016 Background Traffic	0	0	0	0	0	392	0	867	0
New Project Trips			7	12	4	2		4	6
2016 Total Traffic	0	0	7	12	4	394	0	871	6

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

SW 87th Avenue & Project Driveway
AM Peak Hour

Description	SW 87th Ave Northbound			SW 87th Ave Southbound			Eastbound			Driveway Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (2/17/2015) Season Adjustment Factor	0 1.00	507 1.00	0 1.00	0 1.00	162 1.00	0 1.00	0 1.00	0 1.00	0 1.00	0 1.00	0 1.00	0 1.00
2015 Peak Season Traffic	0	507	0	0	162	0	0	0	0	0	0	0
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
2016 Background Traffic	0	512	0	0	164	0	0	0	0	0	0	0
New Project Trips	-7	-7	12	10	-7	10	6	6	10	6	10	10
2016 Total Traffic	0	505	12	10	157	0	0	0	0	6	0	10

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

**SW 87th Avenue & Project Driveway
PM Peak Hour**

Description	SW 87th Ave Northbound			SW 87th Ave Southbound			Eastbound			Driveway Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (2/17/2015) Season Adjustment Factor	0 1.00	250 1.00	0 1.00	0 1.00	483 1.00	0 1.00	0 1.00	0 1.00	0 1.00	0 1.00	0 1.00	0 1.00
2015 Peak Season Traffic	0	250	0	0	483	0	0	0	0	0	0	0
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
2016 Background Traffic	0	253	0	0	488	0	0	0	0	0	0	0
New Project Trips		-20	35		-16					10		33
2016 Total Traffic	0	233	35	29	472	0	0	0	0	10	0	33

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

**SW 200th Street & Project Driveway
AM Peak Hour**

Description	Driveway Northbound			Southbound			SW 200th St Eastbound			SW 200th St Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (2/17/2015) Season Adjustment Factor	0	0	0	0	0	0	0	0	0	0	1	0
	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
2015 Peak Season Traffic	0	0	0	0	0	0	0	0	0	0	1	0
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
2016 Background Traffic	0	0	0	0	0	0	0	0	0	0	1	0
New Project Trips	9		3							10	1	
2016 Total Traffic	9	0	3	0	0	0	0	0	0	10	1	0

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

**SW 200th Street & Project Driveway
PM Peak Hour**

Description	Driveway Northbound		Southbound		SW 200th St Eastbound		SW 200th St Westbound		
	Left	Right	Left	Right	Left	Right	Left	Right	
Existing Traffic (2/17/2015) Season Adjustment Factor	0 1.00	0 1.00	0 1.00	0 1.00	0 1.00	2 1.00	0 1.00	1 1.00	0 1.00
2015 Peak Season Traffic	0	0	0	0	0	2	0	1	0
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
2016 Background Traffic	0	0	0	0	0	2	0	1	0
New Project Trips	22	9				28		3	
2016 Total Traffic	22	9	0	0	0	28	0	3	0

FUTURE ROADWAY LINK VOLUME ANALYSIS

**Old Cutler Road & SW 87th Avenue
AM Peak Hour**

Description	Old Cutler Rd East of SW 87th Ave Through	Old Cutler Rd West of SW 87th Ave Through	SW 87th Ave North of Old Cutler Rd Through	SW 87th Ave South of Old Cutler Rd Through
Existing Traffic (2/17-19/2015) Season Adjustment Factor	1,106 1.00	1,210 1.00	837 1.00	1,051 1.00
2015 Peak Season Traffic	1,106	1,210	837	1,051
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%
2016 Background Traffic	1,117	1,222	845	1,062
New Project Trips	10	14	17	2
2016 Total Traffic	1,127	1,236	862	1,064

FUTURE ROADWAY LINK VOLUME ANALYSIS

**Old Cutler Road & SW 87th Avenue
PM Peak Hour**

Description	Old Cutler Rd East of SW 87th Ave Through	Old Cutler Rd West of SW 87th Ave Through	SW 87th Ave North of Old Cutler Rd Through	SW 87th Ave South of Old Cutler Rd Through
Existing Traffic (2/17-19/2015) Season Adjustment Factor	982 1.00	1,289 1.00	701 1.00	1,035 1.00
2015 Peak Season Traffic	982	1,289	701	1,035
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%
2016 Background Traffic	992	1,302	708	1,045
New Project Trips	24	32	48	10
2016 Total Traffic	1,016	1,334	756	1,055

APPENDIX F
Miami-Dade County Concurrency

9154	W FLAGLER ST	W/O NW/SW 87 AVE TO NW 97 AVE	6	5916	3108	2808	328	2480	Γ	D	EE	E	8/12/20* 5:40:59
9156	W FLAGLER ST	W/O NW/SW 97 AVE TO NW 107 AVE	6	6300	2681	3619	289	3330	Γ	D	EE	D	8/12/20* 5:40:59
9158	FLAGLER ST	W/O 107 AVE FROM NW 107 AVE TO NW 114 AVE	6	6300	2141	4159	80	4079	Γ	C	EE	C	8/12/20* 5:40:59
9160	FLAGLER ST	W/O HEFT FROM NW 114 AVE TO NW 118 AVE	6	3156	1922	1234	67	1167	Γ	D	EE	D	8/12/20* 5:40:59
9162	NW 87 AVE/GALLOWAY RD	N/O NW 12 ST TO NW 25 ST	6	4100	3028	1072	74	998	Γ	D	D	D	8/12/20* 5:40:59
9164	NW 87 AVE/GALLOWAY RD	N/O NW 25 ST TO NW 36 ST EXT	6	3520	3596	-76	0	-76	Γ	F	E	F	8/12/20* 5:40:59
9166	NW 87 AVE/GALLOWAY RD	N/O NW 36 ST TO NW 58 ST	4	1230	2007	-777	0	-777	Γ	F	D	F	8/12/20* 5:40:59
9172	GALLOWAY RD/SW 87 AVE	S/O KENDALL DR/SW 88 ST TO SW 112 ST	2	1670	1342	328	4	324	Γ	D	SUMA	D	8/12/20* 5:40:59
9174	GALLOWAY RD/SW 87 AVE	S/O SW 184 ST FROM SW 184 ST TO SW 232 ST	2	1176	797	379	0	379	Γ	E	EE	E	8/12/20* 5:40:59
9178	HAMMOCKS BLVD	S/O SW 88 ST TO SW 104 ST	4	2250	513	1737	359	1378	Γ	D	D	D	8/12/20* 5:40:59
9194	INGRAHAM HWY (SR 936)	E/O LE JEUNE RD BET MCFARLAND-SW 42 AVE	2	1220	932	288	200	88	Γ	D	E	E	8/12/20* 5:40:59
9196	IVES DAIRY RD/NE 203 ST	W/O NE 22 AVE FROM I-95 TO BISCAYNE BLVD	6	7170	3869	3301	143	3158	Γ	C	E+50	C	8/12/20* 5:40:59
9200	IVES DAIRY RD/NE 203 ST	E/O N MIAMI AVE/NW 2 AVE TO SAN SIMEON WAY	6	5530	2896	2634	118	2516	Γ	B	D	C	8/12/20* 5:40:59
9202	KENDALL DR/SW 88 ST	W/O OLD CUTLER RD TO SW 57 AVE	2	3310	585	2725	4	2721	Γ	D	E	D	8/12/20* 5:40:59

APPENDIX G
SYNCHRO Intersection Analyses

Existing (2015) Conditions

HCM 2010 Roundabout
3: SW 87th Ave & Old Cutler Road

9/3/2015

Intersection							
Intersection Delay, s/veh	9.6						
Intersection LOS	A						
Approach	EB		WB		NB		SB
Entry Lanes	2		1		1		1
Conflicting Circle Lanes	1		1		1		1
Adj Approach Flow, veh/h	550		410		658		178
Demand Flow Rate, veh/h	550		410		658		178
Vehicles Circulating, veh/h	151		422		493		418
Vehicles Exiting, veh/h	445		382		208		338
Follow-Up Headway, s	3.186		3.186		3.186		3.186
Ped Vol Crossing Leg, #/h	0		0		0		0
Ped Cap Adj	1.000		1.000		1.000		1.000
Approach Delay, s/veh	8.1		10.0		11.2		7.6
Approach LOS	A		A		B		A
Lane	Left	Right	Left	Bypass	Left	Bypass	Left
Designated Moves	L	TR	LT	R	LT	R	LTR
Assumed Moves	L	TR	LT	R	LT	R	LTR
RT Channelized				Yield		Yield	
Lane Util	0.202	0.798	1.000		1.000		1.000
Critical Headway, s	5.193	5.193	5.193		5.193		5.193
Entry Flow, veh/h	111	439	334	76	311	347	178
Cap Entry Lane, veh/h	972	972	741	806	690	771	744
Entry HV Adj Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Flow Entry, veh/h	111	439	334	76	311	347	178
Cap Entry, veh/h	972	972	741	806	690	771	744
V/C Ratio	0.114	0.452	0.451	0.094	0.451	0.450	0.239
Control Delay, s/veh	4.8	9.0	11.0	5.4	11.7	10.7	7.6
LOS	A	A	B	A	B	B	A
95th %tile Queue, veh	0	2	2	0	2	2	1

HCM Unsignalized Intersection Capacity Analysis

8: SW 85th Ave & Old Cutler Road

9/3/2015

												
Movement	EBL	EST	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	625	54	15	234	0	141	0	96	0	0	0
Future Volume (Veh/h)	0	625	54	15	234	0	141	0	96	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	0	702	61	17	263	0	158	0	108	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	263			763			1030	1030	732	1138	1060	263
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	263			763			1030	1030	732	1138	1060	263
tC, single (s)	4.1			4.1			*5.5	6.5	*5.0	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			98			52	100	80	100	100	100
cM capacity (veh/h)	1313			859			333	231	542	142	221	781
Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2							
Volume Total	763	17	263	158	108							
Volume Left	0	17	0	158	0							
Volume Right	61	0	0	0	108							
cSH	1700	859	1700	333	542							
Volume to Capacity	0.45	0.02	0.15	0.48	0.20							
Queue Length 95th (ft)	0	2	0	61	18							
Control Delay (s)	0.0	9.3	0.0	25.2	13.3							
Lane LOS		A		D	B							
Approach Delay (s)	0.0	0.6		20.4								
Approach LOS				C								
Intersection Summary												
Average Delay			4.3									
Intersection Capacity Utilization			50.6%		ICU Level of Service				A			
Analysis Period (min)			15									

* User Entered Value

HCM Unsignalized Intersection Capacity Analysis
 17: Old Cutler Rd & SW 200th St

9/3/2015

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	1	1	709	256	0
Future Volume (Veh/h)	0	1	1	709	256	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83
Hourly flow rate (vph)	0	1	1	854	308	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1164	308	308			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1164	308	308			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	217	737	1264			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	1	855	308			
Volume Left	0	1	0			
Volume Right	1	0	0			
cSH	737	1264	1700			
Volume to Capacity	0.00	0.00	0.18			
Queue Length 95th (ft)	0	0	0			
Control Delay (s)	9.9	0.0	0.0			
Lane LOS	A	A				
Approach Delay (s)	9.9	0.0	0.0			
Approach LOS	A					
Intersection Summary						
Average Delay			0.0			
Intersection Capacity Utilization		48.1%		ICU Level of Service		A
Analysis Period (min)		15				

HCM Unsignalized Intersection Capacity Analysis

25: SW 87th Ave & SW 200th St

9/3/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+			+			+			+	
Traffic Volume (veh/h)	19	0	13	1	0	0	40	467	0	0	88	10
Future Volume (Veh/h)	19	0	13	1	0	0	40	467	0	0	88	10
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	21	0	14	1	0	0	44	513	0	0	97	11
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	704	704	102	718	709	513	108			513		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	704	704	102	718	709	513	108			513		
tC, single (s)	*6.0	6.5	*5.0	*6.0	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	95	100	99	100	100	100	97			100		
cM capacity (veh/h)	430	353	991	416	351	565	1495			1063		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	35	1	557	108								
Volume Left	21	1	44	0								
Volume Right	14	0	0	11								
cSH	556	416	1495	1063								
Volume to Capacity	0.06	0.00	0.03	0.00								
Queue Length 95th (ft)	5	0	2	0								
Control Delay (s)	11.9	13.7	0.9	0.0								
Lane LOS	B	B	A									
Approach Delay (s)	11.9	13.7	0.9	0.0								
Approach LOS	B	B										
Intersection Summary												
Average Delay			1.3									
Intersection Capacity Utilization			43.5%		ICU Level of Service					A		
Analysis Period (min)			15									

* User Entered Value

Intersection									
Intersection Delay, s/veh	30.3								
Intersection LOS	D								
Approach	EB			WB			NB		SB
Entry Lanes	2			1			1		1
Conflicting Circle Lanes	1			1			1		1
Adj Approach Flow, veh/h	523			769			467		494
Demand Flow Rate, veh/h	523			769			467		494
Vehicles Circulating, veh/h	555			328			377		828
Vehicles Exiting, veh/h	767			273			533		232
Follow-Up Headway, s	3.186			3.186			3.186		3.186
Ped Vol Crossing Leg, #/h	0			0			0		0
Ped Cap Adj	1.000			1.000			1.000		1.000
Approach Delay, s/veh	9.5			32.8			7.6		69.7
Approach LOS	A			D			A		F
Lane	Left	Right	Bypass	Left	Bypass	Left	Bypass	Left	
Designated Moves	L	TR	R	LT	R	LT	R	LTR	
Assumed Moves	L	TR	R	LT	R	LT	R	LTR	
RT Channelized			Yield		Yield		Yield		
Lane Util	0.293	0.707		1.000		1.000		1.000	
Critical Headway, s	5.193	5.193		5.193		5.193		5.193	
Entry Flow, veh/h	104	251	168	732	37	224	243	494	
Cap Entry Lane, veh/h	649	649	663	814	896	775	860	494	
Entry HV Adj Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
Flow Entry, veh/h	104	251	168	732	37	224	243	494	
Cap Entry, veh/h	649	649	663	814	896	775	860	494	
V/C Ratio	0.160	0.387	0.253	0.899	0.041	0.289	0.283	1.001	
Control Delay, s/veh	7.4	10.9	8.5	34.3	4.4	8.0	7.2	69.7	
LOS	A	B	A	D	A	A	A	F	
95th %tile Queue, veh	1	2	1	12	0	1	1	14	

HCM Unsignalized Intersection Capacity Analysis

8: SW 85th Ave & Old Cutler Road

9/3/2015

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	340	129	160	678	0	82	0	48	0	0	0
Future Volume (Veh/h)	0	340	129	160	678	0	82	0	48	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	0	386	147	182	770	0	93	0	55	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	770			533			1594	1594	460	1648	1667	770
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	770			533			1594	1594	460	1648	1667	770
tC, single (s)	4.1			4.1			*5.0	6.5	*5.0	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			83			51	100	92	100	100	100
cM capacity (veh/h)	854			1045			192	89	706	64	80	404
Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2							
Volume Total	533	182	770	93	55							
Volume Left	0	182	0	93	0							
Volume Right	147	0	0	0	55							
cSH	1700	1045	1700	192	706							
Volume to Capacity	0.31	0.17	0.45	0.49	0.08							
Queue Length 95th (ft)	0	16	0	59	6							
Control Delay (s)	0.0	9.2	0.0	40.3	10.5							
Lane LOS		A		E	B							
Approach Delay (s)	0.0	1.8		29.2								
Approach LOS				D								
Intersection Summary												
Average Delay			3.7									
Intersection Capacity Utilization		49.2%		ICU Level of Service					A			
Analysis Period (min)		15										

* User Entered Value

HCM Unsignalized Intersection Capacity Analysis
 17: Old Cutler Rd & SW 200th St

9/3/2015



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y			4	4	
Traffic Volume (veh/h)	0	1	4	364	857	2
Future Volume (Veh/h)	0	1	4	364	857	2
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Hourly flow rate (vph)	0	1	5	423	997	2
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1431	998	999			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1431	998	999			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	99			
cM capacity (veh/h)	149	299	701			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	1	428	999			
Volume Left	0	5	0			
Volume Right	1	0	2			
cSH	299	701	1700			
Volume to Capacity	0.00	0.01	0.59			
Queue Length 95th (ft)	0	1	0			
Control Delay (s)	17.1	0.2	0.0			
Lane LOS	C	A				
Approach Delay (s)	17.1	0.2	0.0			
Approach LOS	C					
Intersection Summary						
Average Delay			0.1			
Intersection Capacity Utilization	55.2%			ICU Level of Service	B	
Analysis Period (min)	15					

HCM Unsignalized Intersection Capacity Analysis

25: SW 87th Ave & SW 200th St

9/3/2015

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (veh/h)	12	0	47	0	0	1	31	202	2	0	436	39
Future Volume (Veh/h)	12	0	47	0	0	1	31	202	2	0	436	39
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	13	0	51	0	0	1	33	217	2	0	469	42
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	775	775	490	825	795	218	511			219		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	775	775	490	825	795	218	511			219		
tC, single (s)	*6.0	6.5	*5.0	*6.0	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	97	100	93	100	100	100	97			100		
cM capacity (veh/h)	392	321	686	342	313	827	1065			1362		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	64	1	252	511								
Volume Left	13	0	33	0								
Volume Right	51	1	2	42								
cSH	595	827	1065	1362								
Volume to Capacity	0.11	0.00	0.03	0.00								
Queue Length 95th (ft)	9	0	2	0								
Control Delay (s)	11.8	9.4	1.4	0.0								
Lane LOS	B	A	A									
Approach Delay (s)	11.8	9.4	1.4	0.0								
Approach LOS	B	A										
Intersection Summary												
Average Delay			1.3									
Intersection Capacity Utilization			53.9%		ICU Level of Service				A			
Analysis Period (min)			15									

* User Entered Value

Future (2016) Total Conditions

Intersection								
Intersection Delay, s/veh	9.9							
Intersection LOS	A							
Approach	EB		WB		NB		SB	
Entry Lanes	2		1		1		1	
Conflicting Circle Lanes	1		1		1		1	
Adj Approach Flow, veh/h	563		421		667		184	
Demand Flow Rate, veh/h	563		421		667		184	
Vehicles Circulating, veh/h	153		432		504		429	
Vehicles Exiting, veh/h	460		388		212		347	
Follow-Up Headway, s	3.186		3.186		3.186		3.186	
Ped Vol Crossing Leg, #/h	0		0		0		0	
Ped Cap Adj	1.000		1.000		1.000		1.000	
Approach Delay, s/veh	8.3		10.4		11.4		7.8	
Approach LOS	A		B		B		A	
Lane	Left	Right	Left	Bypass	Left	Bypass	Left	
Designated Moves	L	TR	LT	R	LT	R	LTR	
Assumed Moves	L	TR	LT	R	LT	R	LTR	
RT Channelized				Yield		Yield		
Lane Util	0.206	0.794	1.000		1.000		1.000	
Critical Headway, s	5.193	5.193	5.193		5.193		5.193	
Entry Flow, veh/h	116	447	344	77	316	351	184	
Cap Entry Lane, veh/h	970	970	734	799	683	767	736	
Entry HV Adj Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
Flow Entry, veh/h	116	447	344	77	316	351	184	
Cap Entry, veh/h	970	970	734	799	683	767	736	
V/C Ratio	0.120	0.461	0.469	0.096	0.463	0.458	0.250	
Control Delay, s/veh	4.8	9.2	11.5	5.5	12.1	10.9	7.8	
LOS	A	A	B	A	B	B	A	
95th %tile Queue, veh	0	2	3	0	2	2	1	

HCM Unsignalized Intersection Capacity Analysis

8: SW 85th Ave & Old Cutler Road

9/4/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	630	55	15	234	6	142	2	97	4	2	7
Future Volume (Veh/h)	3	630	55	15	234	6	142	2	97	4	2	7
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	3	708	62	17	263	7	160	2	109	4	2	8
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type												
		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	270			770			1051	1049	739	1156	1076	266
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	270			770			1051	1049	739	1156	1076	266
tC, single (s)	4.1			4.1			*4.5	*4.5	*4.5	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			98			62	100	82	97	99	99
cM capacity (veh/h)	1305			854			426	402	596	140	216	777
Direction, Lane #												
	EB 1	WB 1	WB 2	NB 1	NB 2	SB 1						
Volume Total	773	17	270	162	109	14						
Volume Left	3	17	0	160	0	4						
Volume Right	62	0	7	0	109	8						
cSH	1305	854	1700	426	596	291						
Volume to Capacity	0.00	0.02	0.16	0.38	0.18	0.05						
Queue Length 95th (ft)	0	2	0	44	17	4						
Control Delay (s)	0.1	9.3	0.0	18.5	12.4	18.0						
Lane LOS	A	A		C	B	C						
Approach Delay (s)	0.1	0.6		16.1		18.0						
Approach LOS				C		C						
Intersection Summary												
Average Delay				3.6								
Intersection Capacity Utilization			60.2%		ICU Level of Service				B			
Analysis Period (min)			15									

* User Entered Value

HCM Unsignalized Intersection Capacity Analysis
 17: Old Cutler Rd & SW 200th St

9/4/2015

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	3	1	1	1	1	1
Traffic Volume (veh/h)	3	1	1	720	262	1
Future Volume (Veh/h)	3	1	1	720	262	1
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83
Hourly flow rate (vph)	4	1	1	867	316	1
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1186	316	317			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1186	316	317			
tC, single (s)	*5.5	*5.0	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	99	100	100			
cM capacity (veh/h)	283	810	1255			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	5	868	317			
Volume Left	4	1	0			
Volume Right	1	0	1			
cSH	325	1255	1700			
Volume to Capacity	0.02	0.00	0.19			
Queue Length 95th (ft)	1	0	0			
Control Delay (s)	16.2	0.0	0.0			
Lane LOS	C	A				
Approach Delay (s)	16.2	0.0	0.0			
Approach LOS	C					
Intersection Summary						
Average Delay			0.1			
Intersection Capacity Utilization			48.7%	ICU Level of Service		A
Analysis Period (min)			15			

* User Entered Value

HCM Unsignalized Intersection Capacity Analysis

25: SW 87th Ave & SW 200th St

9/4/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		
Lane Configurations														
Traffic Volume (veh/h)	19	0	13	1	0	9	40	477	0	10	86	10		
Future Volume (Veh/h)	19	0	13	1	0	9	40	477	0	10	86	10		
Sign Control		Stop			Stop			Free			Free			
Grade		0%			0%			0%			0%			
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91		
Hourly flow rate (vph)	21	0	14	1	0	10	44	524	0	11	95	11		
Pedestrians														
Lane Width (ft)														
Walking Speed (ft/s)														
Percent Blockage														
Right turn flare (veh)														
Median type							None							None
Median storage (veh)														
Upstream signal (ft)														
pX, platoon unblocked														
vC, conflicting volume	744	734	100	748	740	524	106					524		
vC1, stage 1 conf vol														
vC2, stage 2 conf vol														
vCu, unblocked vol	744	734	100	748	740	524	106					524		
tC, single (s)	*6.0	6.5	*5.0	*6.0	6.5	6.2	4.1					4.1		
tC, 2 stage (s)														
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2					2.2		
p0 queue free %	95	100	99	100	100	98	97					99		
cM capacity (veh/h)	398	336	993	398	333	557	1498					1053		
Direction, Lane #														
	EB 1	WB 1	NB 1	SB 1										
Volume Total	35	11	568	117										
Volume Left	21	1	44	11										
Volume Right	14	10	0	11										
cSH	524	538	1498	1053										
Volume to Capacity	0.07	0.02	0.03	0.01										
Queue Length 95th (ft)	5	2	2	1										
Control Delay (s)	12.4	11.8	0.9	0.9										
Lane LOS	B	B	A	A										
Approach Delay (s)	12.4	11.8	0.9	0.9										
Approach LOS	B	B												
Intersection Summary														
Average Delay			1.6											
Intersection Capacity Utilization			47.6%	ICU Level of Service	A									
Analysis Period (min)			15											

* User Entered Value

HCM Unsignalized Intersection Capacity Analysis
 13: Old Cutler Rd & East Driveway

9/4/2015



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		4	1		4	
Traffic Volume (veh/h)	2	729	260	3	3	3
Future Volume (Veh/h)	2	729	260	3	3	3
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	2	792	283	3	3	3
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	286				1080	284
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	286				1080	284
tC, single (s)	4.1				*5.5	*5.0
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				99	100
cM capacity (veh/h)	1288				318	835

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	794	286	6
Volume Left	2	0	3
Volume Right	0	3	3
cSH	1288	1700	461
Volume to Capacity	0.00	0.17	0.01
Queue Length 95th (ft)	0	0	1
Control Delay (s)	0.0	0.0	12.9
Lane LOS	A		B
Approach Delay (s)	0.0	0.0	12.9
Approach LOS			B

Intersection Summary			
Average Delay		0.1	
Intersection Capacity Utilization		50.0%	ICU Level of Service A
Analysis Period (min)		15	

* User Entered Value

HCM Unsignalized Intersection Capacity Analysis
 30: SW 87th Ave & Project Drive

9/4/2015

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations			 			
Traffic Volume (veh/h)	6	10	505	12	10	157
Future Volume (Veh/h)	6	10	505	12	10	157
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	7	11	549	13	11	171
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	748	281			562	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	748	281			562	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	98	98			99	
cM capacity (veh/h)	348	722			1019	
Direction, Lane #	WB 1	NB 1	NB 2	SB 1		
Volume Total	18	366	196	182		
Volume Left	7	0	0	11		
Volume Right	11	0	13	0		
cSH	509	1700	1700	1019		
Volume to Capacity	0.04	0.22	0.12	0.01		
Queue Length 95th (ft)	3	0	0	1		
Control Delay (s)	12.3	0.0	0.0	0.6		
Lane LOS	B			A		
Approach Delay (s)	12.3	0.0		0.6		
Approach LOS	B					
Intersection Summary						
Average Delay			0.4			
Intersection Capacity Utilization			26.5%		ICU Level of Service	A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis
 19: Driveway & SW 200th St

9/4/2015

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↑	
Traffic Volume (veh/h)	0	10	1	1	9	3
Future Volume (Veh/h)	0	10	1	1	9	3
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	11	1	1	10	3
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			11		8	6
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			11		8	6
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		99	100
cM capacity (veh/h)			1621		1017	1083
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	11	2	13			
Volume Left	0	1	10			
Volume Right	11	0	3			
cSH	1700	1621	1031			
Volume to Capacity	0.01	0.00	0.01			
Queue Length 95th (ft)	0	0	1			
Control Delay (s)	0.0	3.6	8.5			
Lane LOS		A	A			
Approach Delay (s)	0.0	3.6	8.5			
Approach LOS			A			
Intersection Summary						
Average Delay			4.5			
Intersection Capacity Utilization			13.3%	ICU Level of Service	A	
Analysis Period (min)			15			

HCM 2010 Roundabout
3: SW 87th Ave & Old Cutler Road

9/4/2015

Intersection									
Intersection Delay, s/veh 35.8									
Intersection LOS E									
Approach	EB			WB			NB		SB
Entry Lanes	2			1			1		1
Conflicting Circle Lanes	1			1			1		1
Adj Approach Flow, veh/h	548			793			474		503
Demand Flow Rate, veh/h	548			793			474		503
Vehicles Circulating, veh/h	568			347			400		853
Vehicles Exiting, veh/h	788			281			546		250
Follow-Up Headway, s	3.186			3.186			3.186		3.186
Ped Vol Crossing Leg, #/h	0			0			0		0
Ped Cap Adj	1.000			1.000			1.000		1.000
Approach Delay, s/veh	9.8			40.9			7.8		82.6
Approach LOS	A			E			A		F
Lane	Left	Right	Bypass	Left	Bypass	Left	Bypass	Left	
Designated Moves	L	TR	R	LT	R	LT	R	LTR	
Assumed Moves	L	TR	R	LT	R	LT	R	LTR	
RT Channelized			Yield		Yield		Yield		
Lane Util	0.315	0.685		1.000		1.000		1.000	
Critical Headway, s	5.193	5.193		5.193		5.193		5.193	
Entry Flow, veh/h	119	259	170	756	37	228	246	503	
Cap Entry Lane, veh/h	640	640	655	799	880	757	853	482	
Entry HV Adj Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
Flow Entry, veh/h	119	259	170	756	37	228	246	503	
Cap Entry, veh/h	640	640	655	799	880	757	853	482	
V/C Ratio	0.186	0.405	0.260	0.947	0.042	0.301	0.288	1.045	
Control Delay, s/veh	7.8	11.4	8.7	42.7	4.5	8.3	7.4	82.6	
LOS	A	B	A	E	A	A	A	F	
95th %tile Queue, veh	1	2	1	14	0	1	1	15	

HCM Unsignalized Intersection Capacity Analysis

8: SW 85th Ave & Old Cutler Road

9/4/2015



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔		↔	↔			↔	↔		↔	
Traffic Volume (veh/h)	11	339	130	162	679	19	83	7	48	11	7	26
Future Volume (Veh/h)	11	339	130	162	679	19	83	7	48	11	7	26
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	13	385	148	184	772	22	94	8	55	13	8	30
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	794			533			1659	1647	459	1695	1710	783
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	794			533			1659	1647	459	1695	1710	783
tC, single (s)	4.1			4.1			*4.5	*4.5	*4.5	*5.0	*5.0	*5.0
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	98			82			53	96	93	92	95	94
cM capacity (veh/h)	836			1045			202	203	753	153	152	515

Direction, Lane #	ES 1	WB 1	WB 2	NB 1	NB 2	SB 1
Volume Total	546	184	794	102	55	51
Volume Left	13	184	0	94	0	13
Volume Right	148	0	22	0	55	30
cSH	836	1045	1700	202	753	261
Volume to Capacity	0.02	0.18	0.47	0.51	0.07	0.20
Queue Length 95th (ft)	1	16	0	64	6	18
Control Delay (s)	0.4	9.2	0.0	39.8	10.2	22.1
Lane LOS	A	A		E	B	C
Approach Delay (s)	0.4	1.7		29.4		22.1
Approach LOS				D		C

Intersection Summary		
Average Delay		4.4
Intersection Capacity Utilization	84.9%	ICU Level of Service E
Analysis Period (min)		15

* User Entered Value

HCM Unsignalized Intersection Capacity Analysis
 17: Old Cutler Rd & SW 200th St

9/4/2015

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	9	1	4	375	876	5
Future Volume (Veh/h)	9	1	4	375	876	5
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Hourly flow rate (vph)	10	1	5	436	1019	6
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1468	1022	1025			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1468	1022	1025			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	93	100	99			
cM capacity (veh/h)	141	289	685			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	11	441	1025			
Volume Left	10	5	0			
Volume Right	1	0	6			
cSH	148	685	1700			
Volume to Capacity	0.07	0.01	0.60			
Queue Length 95th (ft)	6	1	0			
Control Delay (s)	31.3	0.2	0.0			
Lane LOS	D	A				
Approach Delay (s)	31.3	0.2	0.0			
Approach LOS	D					
Intersection Summary						
Average Delay			0.3			
Intersection Capacity Utilization		56.4%		ICU Level of Service		B
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis
 25: SW 87th Ave & SW 200th St

9/4/2015



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (veh/h)	12	0	47	0	0	23	31	216	2	28	438	39
Future Volume (Veh/h)	12	0	47	0	0	23	31	216	2	28	438	39
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	13	0	51	0	0	25	33	232	2	30	471	42
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	876	852	492	902	872	233	513			234		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	876	852	492	902	872	233	513			234		
tC, single (s)	*6.0	6.5	*5.0	*6.0	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	96	100	93	100	100	97	97			98		
cM capacity (veh/h)	330	283	684	305	276	811	1063			1345		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	64	25	267	543
Volume Left	13	0	33	30
Volume Right	51	25	2	42
cSH	562	811	1063	1345
Volume to Capacity	0.11	0.03	0.03	0.02
Queue Length 95th (ft)	10	2	2	2
Control Delay (s)	12.2	9.6	1.3	0.7
Lane LOS	B	A	A	A
Approach Delay (s)	12.2	9.6	1.3	0.7
Approach LOS	B	A		

Intersection Summary			
Average Delay		1.9	
Intersection Capacity Utilization	47.5%	ICU Level of Service	A
Analysis Period (min)	15		

* User Entered Value

HCM Unsignalized Intersection Capacity Analysis
 13: Old Cutler Rd & East Driveway

9/4/2015



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		4	4		3	
Traffic Volume (veh/h)	4	394	871	6	7	12
Future Volume (Veh/h)	4	394	871	6	7	12
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	4	428	947	7	8	13
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	954			1386	950	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	954			1386	950	
tC, single (s)	4.1			6.4	6.2	
tC, 2 stage (s)						
tF (s)	2.2			3.5	3.3	
p0 queue free %	99			95	96	
cM capacity (veh/h)	729			158	318	

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	432	954	21
Volume Left	4	0	8
Volume Right	0	7	13
cSH	729	1700	230
Volume to Capacity	0.01	0.56	0.09
Queue Length 95th (ft)	0	0	7
Control Delay (s)	0.2	0.0	22.2
Lane LOS	A		C
Approach Delay (s)	0.2	0.0	22.2
Approach LOS			C

Intersection Summary			
Average Delay		0.4	
Intersection Capacity Utilization		56.2%	ICU Level of Service B
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
 30: SW 87th Ave & Project Driveway

9/4/2015

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	10	33	233	35	29	472
Future Volume (Veh/h)	10	33	233	35	29	472
Sign Control	Stop		Free		Free	
Grade	0%		0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	11	36	253	38	32	513
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None		None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	849	146			291	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	849	146			291	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	96	96			98	
cM capacity (veh/h)	296	882			1282	
Direction, Lane #	WB 1	NB 1	NB 2	SB 1		
Volume Total	47	169	122	545		
Volume Left	11	0	0	32		
Volume Right	36	0	38	0		
cSH	603	1700	1700	1282		
Volume to Capacity	0.08	0.10	0.07	0.02		
Queue Length 95th (ft)	6	0	0	2		
Control Delay (s)	11.5	0.0	0.0	0.7		
Lane LOS	B			A		
Approach Delay (s)	11.5	0.0		0.7		
Approach LOS	B					
Intersection Summary						
Average Delay			1.1			
Intersection Capacity Utilization			47.3%		ICU Level of Service	A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis
 19: Project Driveway & SW 200th St

9/4/2015

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↑	↑
Traffic Volume (veh/h)	2	28	3	1	22	9
Future Volume (Veh/h)	2	28	3	1	22	9
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	2	30	3	1	24	10
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None		None			
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			32		24	17
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			32		24	17
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		98	99
cM capacity (veh/h)			1593		995	1068
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	32	4	34			
Volume Left	0	3	24			
Volume Right	30	0	10			
cSH	1700	1593	1016			
Volume to Capacity	0.02	0.00	0.03			
Queue Length 95th (ft)	0	0	3			
Control Delay (s)	0.0	5.5	8.7			
Lane LOS			A			
Approach Delay (s)	0.0	5.5	8.7			
Approach LOS			A			
Intersection Summary						
Average Delay			4.5			
Intersection Capacity Utilization			13.3%	ICU Level of Service		A
Analysis Period (min)			15			