

**INDEPENDENT RESORT REZONING**  
**TRAFFIC IMPACT STATEMENT**

**Project #16537**

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## INDEPENDENT RESORT REZONING TRAFFIC IMPACT STATEMENT

### Introduction

Independent Resort (hereafter referred to as the Project) is a proposed redevelopment project located adjacent to Times Square within the downtown core of the Town of Fort Myers Beach, Florida. The Project includes the triangle-shaped property generally bounded by the Matanzas Pass Bridge and Estero Boulevard to the west and south, Crescent Street to the east and Fifth Avenue to the north. Independent Resort also includes beachfront property situated on the beachside of Estero Boulevard just north of Crescent Street, Exhibit 1.

The redevelopment of the Estero Boulevard - Time Square Area has been an on-going effort of the Town and Lee County. The Matanzas Pass Bridge (San Carlos Boulevard), Old San Carlos Boulevard, and the section of Estero Boulevard from the bridge to Crescent Street have been the subject of numerous traffic circulation studies, evaluations and recommendations over the past decades. As a result, the proposed Independent Resort redevelopment plan represents the implementation of the goals and objectives of the Fort Myers Beach Comprehensive Plan.

### Study Purpose

In the continuation of the redevelopment effort of downtown Fort Myers Beach, this traffic impact statement (TIS) was prepared in support of the rezoning (ZTIS) of the Independent Resort property. The subject property consists of a bayside resort hotel and a beachside restaurant and bar located within a publicly accessible commercial recreation facility with the anticipated buildout year in late 2019/ early 2020.

### Executive Summary

The findings and conclusions of the ZTIS are as follows.

1. The proposed Independent Resort reflects the implementation of the redevelopment vision of Times Square, Estero Boulevard and downtown Fort Myers Beach.
2. The proposed Independent Resort is anticipated to generate 17% and 11% fewer vehicle trips for the PM peak hour and weekday, respectively, than the Pre-Demolition Development (Pre-Hurricane Charley).
3. The proposed Independent Resort is anticipated to generate 71% and 69% fewer vehicle trips for the PM peak hour and weekday, respectively, than allowed under the Build Per Code Development.

4. Future traffic conditions with the Proposed Development will not cause Estero Boulevard to exceed the minimum LOS standard established by Policy 7-I-2 of the Comprehensive Plan for the Town of Fort Myers Beach.
5. All intersections under study will operate at an acceptable LOS with the Proposed Development.
6. The Proposed Development will not significantly or adversely impact the Times Square roadway circulation system.

**Study Area**

**Roadway Under Study**

Estero Boulevard is an arterial road that provides access to the Town of Fort Myers Beach from San Carlos Boulevard to Hickory Boulevard. It is a two-lane roadway throughout Estero Island.

**Intersections Under Study**

The intersections analyzed in the study are listed below and further depicted in Exhibit 2. A total of 3 intersections were analyzed and evaluated in the ZTIS.

<b>Independent Resort Rezoning</b>		
<b>Major Street</b>	<b>Minor Street</b>	<b>Type</b>
Estero Boulevard	Fifth Street	Directional Movement, 4-Way Intersection, Unsignalized
	Crescent Street	Full Movement, T-Intersection, Unsignalized
Fifth Street	Crescent Street	Full Movement, T-Intersection, Unsignalized

**Project Access**

The proposed rezoning includes two access points that connect the parking areas to the external road network, Exhibit 1b.

- Access 1 has full inbound access on the west side of Crescent Street and full outbound access on the south side of Fifth Street. Access 1 serves as the main entrance to the Project.
- Access 2 is a full access on the north side of Fifth Street where additional parking is provided.



The proposed rezoning includes additional access points on Fifth Street to accommodate a service vehicle drive lane.

Also included in the proposed rezoning is a parking lot on the beachside of Estero Boulevard. However, this parking lot is intended for public use and not for the Project.

### **Development Scenarios and Description**

For purposes of the rezoning request, the trip generation analysis compares three development scenarios of the subject property and discussed below.

- Pre-Demolition Development (Pre-Hurricane Charley) with Current Zoning
- Build Per Code Development (Maximum Allowable Development with Current Zoning)
- Proposed Development with Rezoning

#### **Pre-Demolition Development**

The Pre-Demolition Development scenario reflects the existing development on the subject property and also includes the previously existing beach-front hotels and the Seafarer's Mall, prior to Hurricane Charley.

#### **Build Per Code Development**

For comparative purposes, this development scenario reflects the maximum potential level of development of the subject property allowed under the current zoning.

#### **Proposed Development**

The proposed Independent Resort development is comprised of a hotel resort with supporting uses such as a spa and restaurant. The Proposed Development also includes a separate bayside commercial building as well as a beachside restaurant and bar located within a publicly accessible commercial recreation facility. The commercial recreation facility is considered to be a supporting use to the Independent Resort and the beachside restaurant and bar.

Independent Resort is being designed to be a pedestrian focal point of Times Square with direct linkages to the beach and adjacent social/recreational activities along Estero Boulevard. At-grade parking has been incorporated into the design to accommodate on-site parking demand. Additional public parking will be provided which will improve overall beach access for the general public.

The development parameters summary by land use and size associated with the three development scenarios are as follows.

<b>Development Parameters Summary</b>			
Land Use	Pre-Demolition Development	Build Per Code Development	Proposed Development
Resort Hotel (Occupied Rooms)	66	118	290
Retail (sq. ft.)	24,200	156,705	0
Specialty Retail (sq. ft.)	30,750	67,164	1,800
Restaurant (sq. ft.)	0	0	19,750
Bar (sq. ft.)	0	0	1,955

### **Trip Generation**

The trip generation associated with each of the three development scenarios discussed above was estimated based on trip rates from the Institute of Transportation Engineers (ITE), Trip Generation, 9<sup>th</sup> Edition (Appendix A). Internal trip capture for mixed-use developments were estimated based on the procedures described in the Institute of Transportation Engineers (ITE), Trip Generation Handbook, 3<sup>rd</sup> Edition (Appendix B), where applicable.

The original trip generation using Trafficware software is provided in Appendix C. Also, the ITE Land Use Code and complete trip generation assumptions and calculation worksheets are provided in the following.

- Pre-Demolition Development - Exhibit 3
- Build Per Code Development - Exhibit 4
- Proposed Development - Exhibit 5

### **Pre-Demolition Development**

The trip generation characteristics associated with the Pre-Demolition Development scenario reflects hotel units and a retail commercial center that served the Fort Myers Beach community for many years prior to Hurricane Charley.

Due to its beach location, the prior development did not generate the level of vehicle trips of the typical retail establishments reflective of the ITE trip rates. The retail commercial customers generally arrived by foot, bike or trolley by beachgoers, tourists and from near-by residents. In addition, low percentage of retail pass-by vehicular trips was assumed due to the somewhat circuitous access to the site.

The resultant trip generation analysis is presented in Exhibit 3 and summarized below.

Pre-Demolition Development <sup>(1)</sup>									
Trip Generation Summary									
Trip Type	AM Peak Hour			PM Peak Hour			Daily		
	In	Out	Total	In	Out	Total	In	Out	Total
Total <sup>(2)</sup>	74	45	119	176	204	380	2,252	2,251	4,503
Mixed-Use Internal <sup>(3)</sup>	1	1	2	5	5	10	68	68	136
Hotel	0	1	1	2	3	5	35	33	68
Retail	1	0	1	3	2	5	33	35	68
External Non-Auto <sup>(4)</sup>	35	21	56	81	94	175	1,034	1,033	2,067
External Auto <sup>(5)</sup>	38	23	61	90	105	195	1,150	1,150	2,300
Pass-By Auto <sup>(6)</sup>	5	4	9	16	19	35	205	205	410
Net New Auto <sup>(7)</sup>	33	19	52	74	86	160	945	945	1,890

**Footnotes:**

(1) Pre-Hurricane Charley.

(2) ITE, *Trip Generation*, 9<sup>th</sup> Edition.

(3) ITE, *Trip Generation Handbook*, 3<sup>rd</sup> Edition:

AM ICR = 2%; PM ICR = 3%.

(4) External Non-Auto/Multimodal (PCE) trips including walk, bike and trolley:

AM Non-Auto = 47%; PM Non-Auto = 46%.

(5) External Auto = Total (2) – Mixed-Use Internal (3) – External Non-Auto (4).

(6) Low retail pass-by trips reflective of inconvenient parking and access.

(7) Net New trips on the road network = External Auto (5) - Pass-by (6).

The Pre-Demolition Development scenario is estimated to generate 52 net new auto trips during the AM peak hour, 160 net new auto trips during the PM peak hour and 1,890 net new auto trips on a typical weekday. These net new vehicle trips are circulated on the public road network.

### Build Per Code Development

The trip generation characteristics associated with the Build Per Code Development scenario reflects the maximum intensity of retail commercial use that is allowed under the current zoning.

Due to its beach location, the maximum intensity development is not expected to generate the level of vehicle trips of the typical retail establishments reflective of the ITE trip rates. The retail commercial customers generally arrived by foot, bike or trolley by beachgoers, tourists and from near-by residents. In addition, low percentage of retail pass-by trips was assumed due to the circuitous access and limited parking on site.

The resultant trip generation analysis is presented in Exhibit 4 and summarized below.

Build Per Code Development <sup>(1)</sup>									
Trip Generation Summary									
Trip Type	AM Peak Hour			PM Peak Hour			Daily		
	In	Out	Total	In	Out	Total	In	Out	Total
Total <sup>(2)</sup>	190	118	308	495	556	1,051	6,372	6,370	12,742
Mixed-Use Internal <sup>(3)</sup>	2	2	4	9	9	18	122	122	244
Hotel	0	2	2	4	5	9	63	59	122
Retail	2	0	2	5	4	9	59	63	122
External Non-Auto <sup>(4)</sup>	90	55	145	226	253	479	2,904	2,903	5,807
External Auto <sup>(5)</sup>	98	61	159	260	294	554	3,346	3,345	6,691
Pass-By Auto <sup>(6)</sup>	15	10	25	47	52	99	600	600	1,200
Net New Auto <sup>(7)</sup>	83	51	134	213	242	455	2,746	2,745	5,491

Footnotes:

- (1) Build Per Code Development under current zoning.
- (2) ITE, Trip Generation, 9<sup>th</sup> Edition.
- (3) ITE, Trip Generation Handbook, 3<sup>rd</sup> Edition:  
AM ICR = 1%; PM ICR = 2%.
- (4) External Non-Auto/Multimodal (PCE) trips including walk, bike and trolley:  
AM Non-Auto = 47%; PM Non-Auto = 46%.
- (5) External Auto = Total (2) – Mixed-Use Internal (3) – External Non-Auto (4).
- (6) Low retail pass-by trips reflective of inconvenient parking and access.
- (7) Net New trips on the road network = External Auto (5) - Pass-by (6).

The Build Per Code Development scenario is estimated to generate 134 net new auto trips during the AM peak hour, 455 net new auto trips during the PM peak hour and 5,491 net new auto trips on a typical weekday. These net new vehicle trips are circulated on the public road network.

Proposed Development

The trip generation characteristics associated with the Proposed Development scenario is characterized by the reliance on multimodal travel and with minimum pedestrian and automobile conflict. Independent Resort includes its own amenities such as a restaurant and spa but these are not anticipated to generate traffic as stand-alone uses. The hotel guests are provided with on-site resort amenities along with direct access to Times Square, the beach, and the commercial recreation facility without the need to drive. In addition, no retail pass-by trip deduction was assumed as the resort discourages the reliance on automobile traffic. Other patrons to Independent Resort are expected to arrive by foot, bike or trolley by beachgoers, tourists and from near-by residents.

The resultant trip generation analysis is presented in Exhibit 5 and summarized below.

Proposed Development <sup>(1)</sup>									
Trip Generation Summary									
Trip Type	AM Peak Hour			PM Peak Hour			Daily		
	In	Out	Total	In	Out	Total	In	Out	Total
Total <sup>(2)</sup>	195	128	323	195	169	364	2,312	2,311	4,623
Mixed-Use Internal <sup>(3)</sup>	6	6	12	15	15	30	199	199	398
Hotel	3	3	6	6	7	13	98	69	167
Restaurant	3	3	6	8	7	15	80	116	196
Retail	0	0	0	1	1	2	21	14	35
External Non-Auto <sup>(4)</sup>	107	70	177	108	93	201	1,268	1,267	2,535
External Auto <sup>(5)</sup>	82	52	134	72	61	133	845	845	1,690
Pass-By Auto <sup>(6)</sup>	0	0	0	0	0	0	0	0	0
Net New Auto <sup>(7)</sup>	82	52	134	72	61	133	845	845	1,690

**Footnotes:**

- (1) Proposed Development with rezoning.
- (2) ITE, *Trip Generation*, 9<sup>th</sup> Edition.
- (3) ITE, *Trip Generation Handbook*, 3<sup>rd</sup> Edition:  
AM ICR = 4%; PM ICR = 8%.
- (4) External Non-Auto/Multimodal (PCE) trips including walk, bike and trolley:  
AM Non-Auto = 55%; PM Non-Auto = 55%.
- (5) External Auto = Total (2) – Mixed-Use Internal (3) – External Non-Auto (4).
- (6) Low retail pass-by trips reflective of inconvenient parking and access.
- (7) Net New trips on the road network = External Auto (5) - Pass-by (6).

The Proposed Development scenario is estimated to generate 134 net new auto trips during the AM peak hour, 133 net new auto trips during the PM peak hour and 1,690 net new auto trips on a typical weekday. These net new vehicle trips are circulated on the public road network.

Trip Generation Comparison

The Proposed Development is expected to generate 82 (158%) greater net new external trips during AM peak hour. However, there is expected to be 27 (17%) and 200 (11%) fewer net new external trips during the PM peak hour and weekday, respectively, as compared to the Pre-Demolition Development (Pre-Hurricane Charley).

Proposed Development versus Pre-Demolition Development (Net New Auto Trips)			
Scenario	AM Peak	PM Peak	Daily
Proposed Development	134	133	1,690
Pre-Demolition	52	160	1,890
Trip Reduction With Proposed Development			
Trip Reduction	+82	-27	-200
Percent Reduction	+158%	-17%	-11%



Furthermore, the Proposed Development is expected to generate the same number of net new external trips during AM peak hour, 322 (71%) fewer net new external trips during the PM peak hour, and 3,801 (69%) fewer net new external trips on a daily basis as compared to the Build Per Code Development under the current zoning.

<b>Proposed Development versus Build Per Code Development (Net New Auto Trips)</b>			
<b>Scenario</b>	<b>AM Peak</b>	<b>PM Peak</b>	<b>Daily</b>
Proposed Development	134	133	1,690
Build Per Code Development	134	455	5,491
Trip Reduction With Proposed Development			
Trip Reduction	0	-322	-3,801
Percent Reduction	0	-71%	-69%

### **Project Trip Distribution/ Assignment**

Project trips were distributed to the external road network as depicted in Exhibit 6 and summarized as follows.

- 65% of net new external vehicular trips distributed to and off Fort Myers Beach.
- 30% of net new external vehicular trips distributed south of Times Square.
- 5% of net new external vehicular trips distributed to the north point of the island.

### **Estero Boulevard Segment Analysis**

In accordance with the Lee County Concurrency Report 2016, the Town of Fort Myers Beach has adopted a different methodology for measuring the LOS on Estero Boulevard. Policy 7-I-2 of the Comprehensive Plan for the Town of Fort Myers Beach states:

*“The peak capacity of Estero Boulevard’s congested segments is 1,300 vehicles per hour. The minimum acceptable level-of-service standard for Estero Boulevard shall be that average monthly traffic flows from 10:00 A.M. to 5:00 P.M. during each month do not exceed that level for more than four calendar months in any continuous twelve month period. Measurements from the Permanent Count Station at Donora Boulevard shall be used for this standard.”*

The segment analysis performed for this ZTIS is compliance with Policy 7-I-2 of the Comprehensive Plan for the Town of Fort Myers Beach. The complete segment analysis is depicted in Exhibit 7 and includes the following scenarios.

- Existing Traffic Conditions (2015 Traffic Count Data).
- Future Traffic Conditions without Development.

- Future Traffic Conditions with Pre-Demolition Development.
- Future Traffic Conditions with Build Per Code Development.
- Future Traffic Conditions with Proposed Development.

The Lee County ZTIS guidelines identify roadway significant impact as Project Traffic that consumes 10% or more of the roadway service volume at LOS C. The link specific 2-way service volume at LOS C for the segment under study is 1,162 vehicles per hour, Appendix D.

The LOS conditions and roadway impacts for Estero Boulevard are summarized below.

<b>Roadway Segment Level of Service <sup>1</sup> and Significant Impacts <sup>2</sup></b>			
<b>Scenario</b>	<b>Consecutive Months Exceeding 1,300 vph</b>	<b>Project Traffic as % of SV @ LOS C</b>	<b>Significant Impact (Yes or No)</b>
Existing Conditions	0	N/A	N/A
Future Conditions without Development	0	N/A	N/A
Future Conditions with Pre-Demolition Development	0	9.0%	No
Future Conditions with Build Per Code Development	4 LOS Standard Not Exceeded	25%	Yes
Future Conditions with Proposed Development	0	7.4%	No

**Footnotes:**

(1) Per the Town of Fort Myers Beach Comprehensive Plan Policy 7-1-2. The peak capacity of Estero Boulevard's congested segments is 1,300 vehicles per hour. The minimum acceptable level-of-service standard for Estero Boulevard shall be that average monthly traffic flows from 10:00 A.M. to 5:00 P.M. during each month do not exceed that level for more than four calendar months in any continuous twelve-month period. Measurements from the permanent count station at Donora Boulevard shall be used for this standard.

(2) Lee County ZTIS significant impact with service volume consumptions of 10% or more.

**Existing Traffic Conditions**

The latest AADT count reported for PCS 44 in the 2015 Lee County Traffic Count Report was used to establish current traffic volumes for Estero Boulevard (Appendix D). Existing AADT was converted to average monthly traffic flows from 10 A.M. to 5:00 P.M. using the adjustment factors provided for PCS 44.

The average monthly traffic flows from 10:00 AM to 5:00 PM under existing traffic conditions is under the minimum LOS standard of 1,300 vehicles per hour for all months in 2015. The peak month has a volume to capacity ratio of 0.77.



### Future Traffic Conditions without Development

Background traffic projections to 2020 (Project buildout of 2019 plus 1 year) were developed based on long-term growth trends derived from the historic traffic counts between 2006 and 2015 reported in the 2015 Lee County Traffic Count Report for PCS 44 (Appendix E). The resultant growth rate from the historic growth trend analysis was -1.55%. Rather than using a negative value, a growth rate of 1% per year was applied to the existing AADT to project 2020 AADT. The 2020 AADT was converted to average monthly traffic flows from 10 A.M. to 5:00 P.M. using the adjustment factors provided for PCS 44.

The average monthly traffic flows from 10:00 AM to 5:00 PM under future traffic conditions without development is under the minimum LOS standard for all months in 2020. The peak month has a volume to capacity ratio of 0.81.

### Future Traffic Conditions with Pre-Demolition Development

The PM peak hour net new external vehicular trips generated by the Pre-Demolition Development were added to the future background traffic with the assumption that 65% (Exhibit 6) of the total trip generation would be the peak project trip assignment applied to Estero Boulevard. The total combined future traffic for each month was compared to the minimum LOS standard to determine the traffic impacts.

The average monthly traffic flows from 10:00 AM to 5:00 PM under future traffic conditions with the Pre-Demolition Development is under the minimum LOS standard for all months in 2020. The peak month has a volume to capacity ratio of 0.89.

The Pre-Demolition Development trips consume 9.0% of the 2-way service volume at LOS C so there are no significant impacts affecting Estero Boulevard.

### Future Traffic Conditions with Build Per Code Development

The PM peak hour net new external vehicular trips generated by the Build Per Code Development were added to the future background traffic with the assumption that 65% (Exhibit 6) of the total trip generation would be the peak project trip assignment applied to Estero Boulevard. The total combined future traffic for each month was compared to the minimum LOS standard to determine the traffic impacts.

The average monthly traffic flows from 10:00 AM to 5:00 PM under future traffic conditions with the Build Per Code Development is anticipated to exceed the minimum LOS standard for four consecutive months. The peak month has a volume to capacity ratio of 1.04.

The Build Per Code Development trips consume 25% of the 2-way service volume at LOS C so there are significant and adverse impacts affecting Estero Boulevard.

Future Traffic Conditions with Proposed Development

The PM peak hour net new external vehicular trips generated by the Proposed Development were added to the future background traffic with the assumption that 65% (Exhibit 6) of the total trip generation would be the peak project trip assignment applied to Estero Boulevard. The total combined future traffic for each month was compared to the minimum LOS standard to determine the traffic impacts.

The average monthly traffic flows from 10:00 AM to 5:00 PM under future traffic conditions with the Proposed Development is under the minimum LOS standard for all months in 2020. The peak month has a volume to capacity ratio of 0.88.

The Proposed Development trips consume 7.4% of the 2-way service volume at LOS C so there are no significant impacts affecting Estero Boulevard.

Intersection Analysis

Synchro was used to perform the HCM 2010 analysis of the intersections under existing traffic conditions and future conditions with each development scenario. For unsignalized (TWSC) intersections, the Intersection Capacity Utilization (ICU) LOS was reported to better reflect the overall operations of the intersection. The complete HCM and ICU analysis output are in Appendix G and includes the following scenarios.

- Existing Traffic Conditions (2016 Turning Movement Data)
- Future Traffic Conditions with Pre-Demolition Development
- Future Traffic Conditions with Build Per Code Development
- Future Traffic Conditions with Proposed Development

The intersection LOS analysis is summarized as the following.

Intersection Level of Service					
Scenario	Estero Blvd/ Fifth St <sup>1</sup>	Estero Blvd/ Crescent St <sup>1</sup>	Fifth St/ Crescent St <sup>2</sup>	Fifth St/ Access 1 <sup>1</sup>	Fifth St/ Access 2 <sup>1</sup>
Existing Conditions	B	B	A	N/A	N/A
Pre-Demolition Development	B	C	A	N/A	N/A
Build Per Code Development	B	C	A	N/A	N/A
Proposed Development	B	C	A	A/A <sup>3</sup>	A

Footnotes:

- (1) Unsignalized (TWSC) Intersection – ICU LOS of overall intersection reported.
- (2) Unsignalized (AWSC) Intersection – HCM overall LOS reported.
- (3) Inbound / Outbound



As shown above, all intersections are expected to operate at an acceptable level of service under existing conditions and future conditions with each development program. However, the side streets under stop control are expected to experience delay.

#### Existing Traffic Conditions

Intersections turning movement counts for the AM and PM peak hours were conducted by DPA in September 2016. At the time of the counts, the roadway construction on Estero Boulevard near the intersections under was completed. The turning movement counts are provided in Appendix F and include the following intersections.

- Estero Boulevard/ Fifth Street
- Estero Boulevard/ Crescent Street
- Fifth Street/ Crescent Street

Although the turning movement counts were performed during off season, the counts were fixed to a common peak hour and then seasonally adjusted, using adjustment factors from the appropriate permanent count station, so that the counts represent 2016 peak season, peak hour volumes. During the time of this study, the resultant 2016 peak season, peak hour volumes (Exhibit 8) served as the most current data available.

Under existing traffic conditions, all intersections operate at an acceptable level of service.

#### Future Background Traffic

The 2016 peak season, peak hour volumes were projected to the year 2020 (Project buildout of 2019 plus 1 year) based on long-term growth trends derived from the historic traffic counts between 2006 and 2015 reported in the 2015 Lee County Traffic Count Report for PCS 44 (Appendix E). The resultant growth rate was -1.55% so a growth rate of 1% per year was used in this study to project 2020 background traffic. The resultant 2020 background traffic volumes at the intersections under study are shown in Exhibit 9.

No intersection analysis was performed for future background traffic.

#### Future Traffic Conditions with Pre-Demolition Development

The background traffic projections were combined with Project traffic to derive the total future volume for the Pre-Demolition Development scenario. Exhibit 10 depicts the total combined and Project trips for the Pre-Demolition Development

Under future traffic conditions with Pre-Demolition Development, all intersections (including Project accesses) operate at an acceptable level of service.

### Future Traffic Conditions with Build Per Code Development

The background traffic projections were combined with Project traffic to derive the total future volume for the Build Per Code Development scenario. Exhibit 11 depicts the total combined and Project trips for the Build Per Code Development.

Under future traffic conditions with Build Per Code Development, all intersections (including Project accesses) operate at an acceptable level of service.

### Future Traffic Conditions with Proposed Development

The background traffic projections were combined with Project traffic to derive the total future volume for the Proposed Development scenario. Exhibit 12 depicts the total combined and Project trips for the Proposed Development.

Under future traffic conditions with Proposed Development, all intersections (including Project accesses) operate at an acceptable level of service.

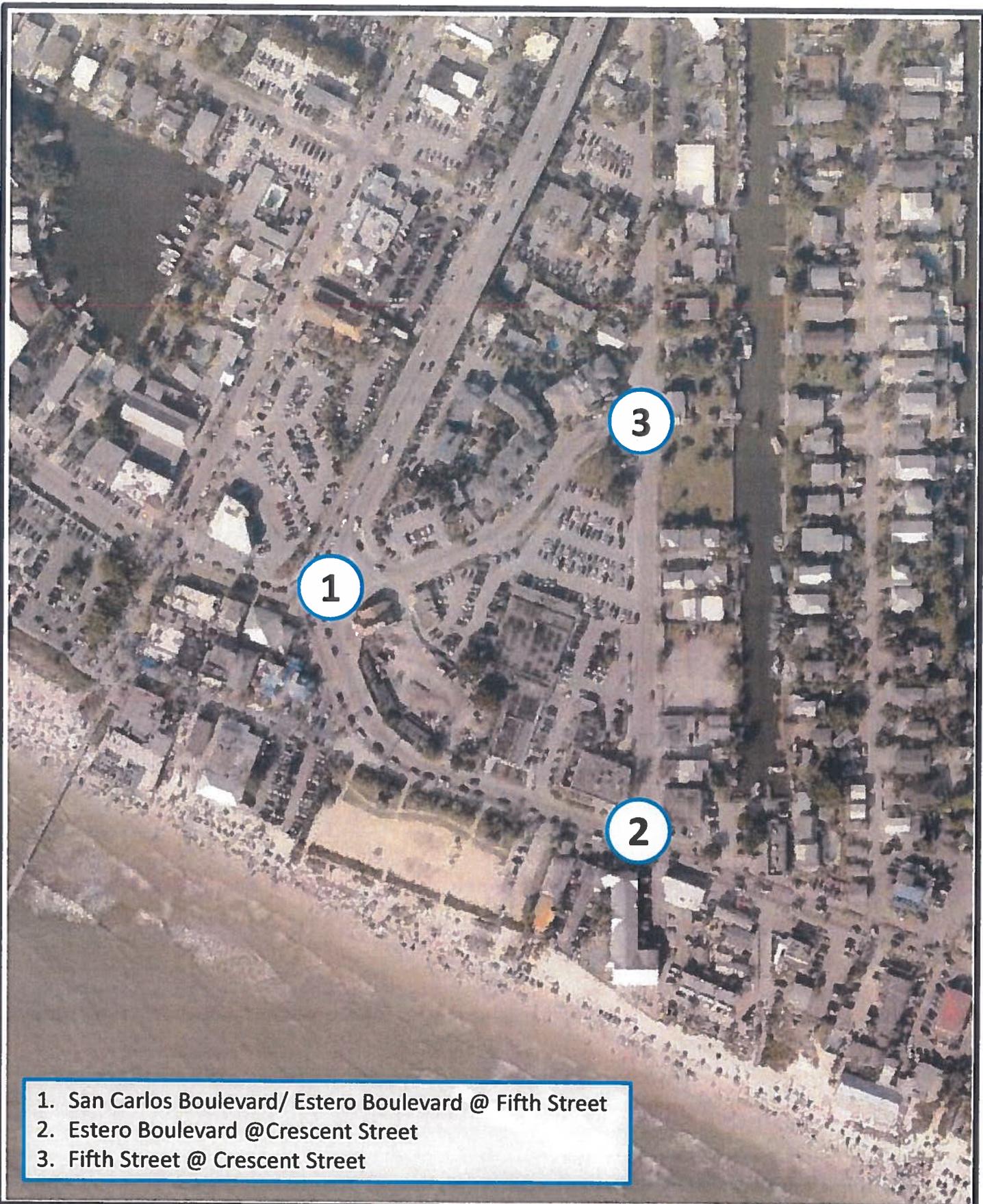
### Conclusions

The findings and conclusions of the ZTIS are as follows.

1. The proposed Independent Resort reflects the implementation of the redevelopment vision of Times Square, Estero Boulevard and downtown Fort Myers Beach.
2. The proposed Independent Resort is anticipated to generate 17% and 11% fewer vehicle trips for the PM peak hour and weekday, respectively, than the Pre-Demolition Development (Pre-Hurricane Charley).
3. The proposed Independent Resort is anticipated to generate 71% and 69% fewer vehicle trips for the PM peak hour and weekday, respectively, than allowed under the Build Per Code Development.
4. Future traffic conditions with the Proposed Development will not cause Estero Boulevard to exceed the minimum LOS standard established by Policy 7-I-2 of the Comprehensive Plan for the Town of Fort Myers Beach.
5. All intersections under study will operate at an acceptable LOS with the Proposed Development.
6. The proposed development will not significantly or adversely impact the Times Square roadway circulation system.







- 1. San Carlos Boulevard/ Estero Boulevard @ Fifth Street
- 2. Estero Boulevard @ Crescent Street
- 3. Fifth Street @ Crescent Street



INDEPENDENT RESORT

Intersections Under Study

16537/14A/1116

2

**EXHIBIT 3**

**INDEPENDENT RESORT  
PRE-DEMOLITION DEVELOPMENT PROGRAM - TOTAL PROJECT  
TRIP GENERATION <sup>(1)</sup>**

Hotel	LUC	SIZE	AM PEAK HOUR				PM PEAK HOUR				DAILY			
			In	Out	Total	%	In	Out	Total	%	In	Out	Total	%
Beachside Resort Hotel	330	66 Occupied Rooms	22	9	31 <sup>(5)</sup>		14	18	32 <sup>(6)</sup>		206	206	412 <sup>(7)</sup>	
<b>Trips</b>			22	9	31		14	18	32		206	206	412	
Internal Capture <sup>(2)</sup>			0	1	1	3.2%	2	3	5	16%	35	33	68	17%
Non-Auto Trip Reduction <sup>(3)</sup>			12	5	17	55%	8	10	18	55%	113	113	226	55%
Pass-by - Automobile trips <sup>(4)</sup>			0	0	0	0%	0	0	0	0%	0	0	0	0%
External			10	3	13		4	5	9		58	60	118	
<b>Retail</b>														
Bayside Retail	820	24.2 Gross Leasable Area 1000 SF	41	25	66 <sup>(8)</sup>		111	121	232 <sup>(8)</sup>		1,350	1,350	2,700 <sup>(8)</sup>	
Bayside Specialty Retail	826	22.45 Gross Leasable Area 1000 SF	8	8	16 <sup>(9)</sup>		33	42	75 <sup>(10)</sup>		499	499	998 <sup>(10)</sup>	
Beachside Specialty Retail	826	8.3 Gross Leasable Area 1000 SF	3	3	6 <sup>(9)</sup>		18	23	41 <sup>(10)</sup>		197	196	393 <sup>(10)</sup>	
<b>Trips</b>			52	36	88		162	186	348		2046	2045	4,091	
Internal Capture <sup>(2)</sup>			1	0	1	1.1%	3	2	5	1.4%	33	35	68	1.7%
Non-Auto Trip Reduction <sup>(3)</sup>			23	16	39	45%	73	84	157	45%	921	920	1,841	45%
Pass-by - Automobile trips <sup>(4)</sup>			5	4	9	10%	16	19	35	10%	205	205	410	10%
External			28	20	48		86	100	186		1,092	1,090	2,182	
<b>TOTAL</b>			<u>74</u>	<u>45</u>	<u>119</u>		<u>176</u>	<u>204</u>	<u>380</u>		<u>2,252</u>	<u>2,251</u>	<u>4,503</u>	
<b>INTERNAL CAPTURE <sup>(2)</sup></b>			<u>1</u>	<u>1</u>	<u>2</u>	<u>2%</u>	<u>5</u>	<u>5</u>	<u>10</u>	<u>3%</u>	<u>68</u>	<u>68</u>	<u>136</u>	<u>3%</u>
<b>NON-AUTO TRIP REDUCTION <sup>(3)</sup></b>			<u>35</u>	<u>21</u>	<u>56</u>	<u>47%</u>	<u>81</u>	<u>94</u>	<u>175</u>	<u>46%</u>	<u>1,034</u>	<u>1,033</u>	<u>2,067</u>	<u>46%</u>
<b>DRIVEWAY VOLUME</b>			<u>38</u>	<u>23</u>	<u>61</u>		<u>90</u>	<u>105</u>	<u>195</u>		<u>1,150</u>	<u>1,150</u>	<u>2,300</u>	
<b>PASS-BY - AUTOMOBILE TRIPS <sup>(4)</sup></b>			<u>5</u>	<u>4</u>	<u>9</u>	<u>8%</u>	<u>16</u>	<u>19</u>	<u>35</u>	<u>9%</u>	<u>205</u>	<u>205</u>	<u>410</u>	<u>9%</u>
<b>NET NEW EXTERNAL AUTOMOBILE TRIPS</b>			<u>33</u>	<u>19</u>	<u>52</u>		<u>74</u>	<u>86</u>	<u>160</u>		<u>945</u>	<u>945</u>	<u>1,890</u>	

**Footnotes:**

- (1) Trip generation estimate based on ITE Trip Generation (9th Edition) using Trafficware software.
- (2) ITE, Trip Generation Handbook - An ITE Proposed Recommended Practice (3rd Edition), Chapter 6 - Trip Generation for Mixed-Use Development.
- (3) Reduction reflects pedestrian and bicycle trips to / from immediate vicinity.
- (4) ITE average retail pass-by rate capped at 10% for retail and specialty retail uses.
- (5) ITE LUC 330 Resort Hotel fitted curve equation applied.
- (6) ITE LUC 330 Resort Hotel fitted curve not provided by ITE - Average rate applied.
- (7) ITE does not offer weekday trip generation rates for LUC 330 Resort Hotel. A custom rate has been developed based on the PM peak hour and weekday rates for LUC 310 Hotel.
  - a) The PM peak hour rate for LUC 310 Hotel is 0.70 trips per occupied room.
  - b) The PM peak hour rate for LUC 330 Resort Hotel is 0.49 per occupied room.
  - c) The PM peak hour rate for LUC 330 Resort Hotel is 70% of the PM peak hour rate for LUC 310 Hotel.
  - d) The weekday trip generation rate for LUC 330 Resort Hotel is derived by multiplying the weekday trip generation rate for LUC 310 Hotel (8.92) by 0.70.
  - e) The resultant weekday trip generation rate for LUC 330 Resort Hotel is 6.24.
- (8) ITE LUC 820 Shopping Center fitted curve equation applied.
- (9) ITE does not offer AM peak hour trip generation rates for LUC 826 Specialty Retail. A custom rate has been developed based on the AM and PM peak hour rates for LUC 820 Shopping Center.
  - a) The PM peak hour rate for LUC 820 Shopping Center is 3.71 trips per 1,000 GSF.
  - b) The PM peak hour rate for LUC 826 Specialty Retail is 2.71 trips per 1,000 GSF.
  - c) The PM peak hour rate for LUC 826 Specialty Retail is 73% of the PM peak hour rate for LUC 810 Shopping Center.
  - d) The AM peak hour trip generation rate for LUC 826 Specialty Retail is derived by multiplying the AM peak hour trip generation rate for LUC 820 Shopping Center (0.96) by 0.73.
  - e) The resultant AM peak hour trip generation rate for LUC 826 Specialty Retail is 0.70.
- (10) ITE LUC 826 Specialty Retail fitted curve equation applied.

**EXHIBIT 4**  
**INDEPENDENT RESORT**  
**BUILD PER CODE DEVELOPMENT PROGRAM - TOTAL PROJECT**  
**TRIP GENERATION <sup>(1)</sup>**

Hotel	LUC	SIZE	AM PEAK HOUR				PM PEAK HOUR				DAILY			
			In	Out	Total	%	In	Out	Total	%	In	Out	Total	%
Bayside Resort Hotel	330	48 Occupied Rooms	17	7	24 <sup>(5)</sup>		10	14	24 <sup>(6)</sup>		150	150	300 <sup>(7)</sup>	
Beachside Resort Hotel	330	70 Occupied Rooms	23	9	32 <sup>(5)</sup>		15	19	34 <sup>(6)</sup>		219	218	437 <sup>(7)</sup>	
<b>Trips</b>			40	16	56		25	33	58		369	368	737	
Internal Capture <sup>(2)</sup>			0	2	2	3.6%	4	5	9	16%	63	59	122	17%
Non-Auto Trip Reduction <sup>(3)</sup>			22	9	31	55%	14	18	32	55%	203	202	405	55%
Pass-by - Automobile trips <sup>(4)</sup>			0	0	0	0%	0	0	0	0%	0	0	0	0%
External			18	5	23		7	10	17		103	107	210	
<b>Retail</b>														
Bayside Retail	820	156.71 Gross Leasable Area 1000 SF	127	78	205 <sup>(8)</sup>		389	421	810 <sup>(8)</sup>		4,547	4,547	9,094 <sup>(8)</sup>	
Beachside Specialty Retail	826	67.16 Gross Leasable Area 1000 SF	23	24	47 <sup>(9)</sup>		81	102	183 <sup>(10)</sup>		1,456	1,455	2,911 <sup>(10)</sup>	
<b>Trips</b>			150	102	252		470	523	993		6003	6002	12,005	
Internal Capture <sup>(2)</sup>			2	0	2	0.8%	5	4	9	0.9%	59	63	122	1.0%
Non-Auto Trip Reduction <sup>(3)</sup>			68	46	114	45%	212	235	447	45%	2,701	2,701	5,402	45%
Pass-by - Automobile trips <sup>(4)</sup>			15	10	25	10%	47	52	99	10%	600	600	1,200	10%
External			80	56	136		253	284	537		3,243	3,238	6,481	
<b>TOTAL</b>			190	118	308		495	556	1,051		6,372	6,370	12,742	
INTERNAL CAPTURE <sup>(2)</sup>			2	2	4	1%	9	9	18	2%	122	122	244	2%
NON-AUTO TRIP REDUCTION <sup>(3)</sup>			90	55	145	47%	226	253	479	46%	2,904	2,903	5,807	46%
DRIVEWAY VOLUME			98	61	159		260	294	554		3,346	3,345	6,691	
PASS-BY - AUTOMOBILE TRIPS <sup>(4)</sup>			15	10	25	8%	47	52	99	9%	600	600	1,200	9%
NET NEW EXTERNAL AUTOMOBILE TRIPS			83	51	134		213	242	455		2,746	2,745	5,491	

**Footnotes:**

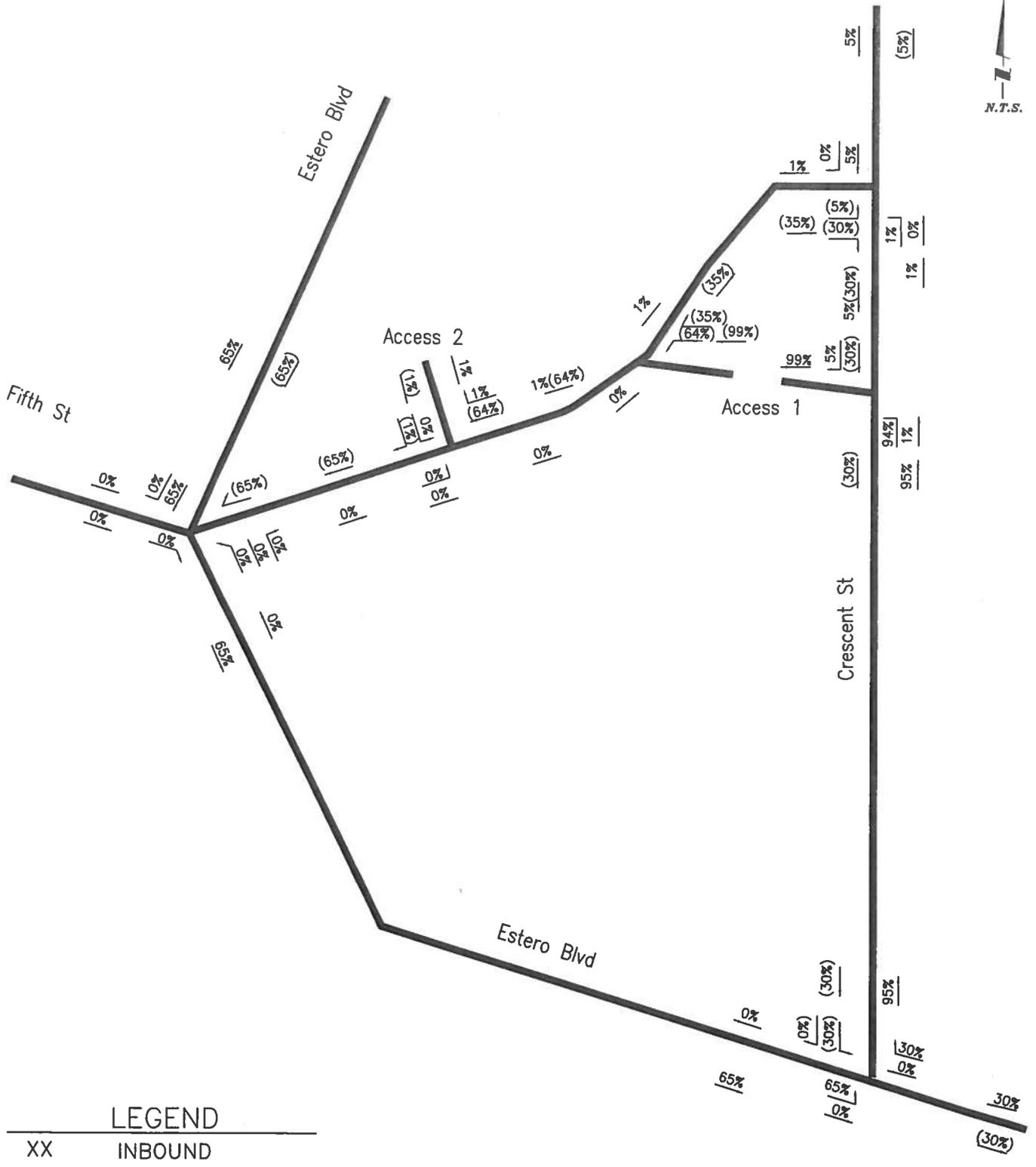
- (1) Trip generation estimate based on ITE *Trip Generation* (9th Edition) using Trafficware software.
- (2) ITE, *Trip Generation Handbook - An ITE Proposed Recommended Practice* (3rd Edition). Chapter 6 - Trip Generation for Mixed-Use Development.
- (3) Reduction reflects pedestrian and bicycle trips to / from immediate vicinity.
- (4) ITE average retail pass-by rate capped at 10% for retail and specialty retail uses.
- (5) ITE LUC 330 Resort Hotel fitted curve equation applied.
- (6) ITE LUC 330 Resort Hotel fitted curve not provided by ITE - Average rate applied.
- (7) ITE does not offer weekday trip generation rates for LUC 330 Resort Hotel. A custom rate has been developed based on the PM peak hour and weekday rates for LUC 310 Hotel.
  - a) The PM peak hour rate for LUC 310 Hotel is 0.70 trips per occupied room.
  - b) The PM peak hour rate for LUC 330 Resort Hotel is 0.49 per occupied room.
  - c) The PM peak hour rate for LUC 330 Resort Hotel is 70% of the PM peak hour rate for LUC 310 Hotel.
  - d) The weekday trip generation rate for LUC 330 Resort Hotel is derived by multiplying the weekday trip generation rate for LUC 310 Hotel (8.92) by 0.70.
  - e) The resultant weekday trip generation rate for LUC 330 Resort Hotel is 6.24.
- (8) ITE LUC 820 Shopping Center fitted curve equation applied.
- (9) ITE does not offer AM peak hour trip generation rates for LUC 826 Specialty Retail. A custom rate has been developed based on the AM and PM peak hour rates for LUC 820 Shopping Center.
  - a) The PM peak hour rate for LUC 820 Shopping Center is 3.71 trips per 1,000 GSF.
  - b) The PM peak hour rate for LUC 826 Specialty Retail is 2.71 trips per 1,000 GSF.
  - c) The PM peak hour rate for LUC 826 Specialty Retail is 73% of the PM peak hour rate for LUC 810 Shopping Center.
  - d) The AM peak hour trip generation rate for LUC 826 Specialty Retail is derived by multiplying the AM peak hour trip generation rate for LUC 820 Shopping Center (0.96) by 0.73.
  - e) The resultant AM peak hour trip generation rate for LUC 826 Specialty Retail is 0.70.
- (10) ITE LUC 826 Specialty Retail fitted curve equation applied.

**EXHIBIT 5**  
**INDEPENDENT RESORT**  
**PROPOSED DEVELOPMENT PROGRAM - TOTAL PROJECT**  
**TRIP GENERATION <sup>(1)</sup>**

Hotel	LUC	SIZE	AM PEAK HOUR				PM PEAK HOUR				DAILY			
			In	Out	Total	%	In	Out	Total	%	In	Out	Total	%
Bayside Resort Hotel	330	290 Occupied Rooms	78	31	109 <sup>(5)</sup>		61	81	142 <sup>(6)</sup>		905	905	1,810 <sup>(7)</sup>	
Trips			78	31	109		61	81	142		905	905	1,810	
Internal Capture <sup>(2)</sup>			3	3	6	5.5%	6	7	13	9.2%	98	69	167	9.2%
Non-Auto Trip Reduction <sup>(3)</sup>			43	17	60	55%	34	45	79	55%	498	498	996	55%
Pass-by - Automobile trips <sup>(4)</sup>			0	0	0	0%	0	0	0	0%	0	0	0	0%
External			32	11	43		21	29	50		311	339	650	
<b>Restaurant</b>														
Beachside Restaurant	932	19.75 Gross Floor Area 1000 SF	117	96	213 <sup>(8)</sup>		117	78	195 <sup>(8)</sup>		1,256	1,255	2,511 <sup>(8)</sup>	
Beachside Bar	925	1.96 Gross Floor Area 1000 SF	0	0	0 <sup>(9)</sup>		15	7	22 <sup>(10)</sup>		111	111	222 <sup>(11)</sup>	
Trips			117	96	213		132	85	217		1367	1366	2,733	
Internal Capture <sup>(2)</sup>			3	3	6	2.8%	8	7	15	6.9%	80	116	196	7.2%
Non-Auto Trip Reduction <sup>(3)</sup>			64	53	117	55%	73	47	120	55%	752	751	1,503	55%
Pass-by - Automobile trips <sup>(4)</sup>			0	0	0	0%	0	0	0	0%	0	0	0	0%
External			50	40	90		52	32	84		547	519	1,066	
<b>Retail</b>														
Bayside Specialty Retail	826	1.8 Gross Leasable Area 1000 SF	0	1	1 <sup>(12)</sup>		2	3	5 <sup>(13)</sup>		40	40	80 <sup>(13)</sup>	
Internal Capture <sup>(2)</sup>			0	1	1	0%	2	3	5		40	40	80	
Non-Auto Trip Reduction <sup>(3)</sup>			0	0	0	0%	1	1	2	40%	21	14	35	44%
Pass-by - Automobile trips <sup>(3)</sup>			0	0	0	45%	1	1	2	45%	18	18	36	45%
External			0	0	0	0%	0	0	0	0%	0	0	0	0%
			0	1	1		1	2	3		21	20	41	
<b>TOTAL</b>			<b>195</b>	<b>128</b>	<b>323</b>		<b>195</b>	<b>169</b>	<b>364</b>		<b>2,312</b>	<b>2,311</b>	<b>4,623</b>	
INTERNAL CAPTURE <sup>(2)</sup>			6	6	12	4%	15	15	30	8%	199	199	398	9%
NON-AUTO TRIP REDUCTION <sup>(3)</sup>			107	70	177	55%	108	93	201	55%	1,268	1,267	2,535	55%
DRIVEWAY VOLUME			<u>82</u>	<u>52</u>	<u>134</u>		<u>72</u>	<u>61</u>	<u>133</u>		<u>845</u>	<u>845</u>	<u>1,690</u>	
PASS-BY - AUTOMOBILE TRIPS <sup>(4)</sup>			0	0	0	0%	0	0	0	0%	0	0	0	0%
NET NEW EXTERNAL AUTOMOBILE TRIPS			<u>82</u>	<u>52</u>	<u>134</u>		<u>72</u>	<u>61</u>	<u>133</u>		<u>845</u>	<u>845</u>	<u>1,690</u>	

**Footnotes:**

- (1) Trip generation estimate based on ITE *Trip Generation* (9th Edition) using Trafficware software.
- (2) ITE, *Trip Generation Handbook - An ITE Proposed Recommended Practice* (3rd Edition), Chapter 6 - Trip Generation for Mixed-Use Development.
- (3) Reduction reflects pedestrian and bicycle trips to / from immediate vicinity.
- (4) ITE average retail pass-by rate capped at 10% for retail and specialty retail uses.
- (5) ITE LUC 330 Resort Hotel fitted curve equation applied.
- (6) ITE LUC 330 Resort Hotel fitted curve not provided by ITE - Average rate applied.
- (7) ITE does not offer weekday trip generation rates for LUC 330 Resort Hotel. A custom rate has been developed based on the PM peak hour and weekday rates for LUC 310 Hotel.
  - a) The PM peak hour rate for LUC 310 Hotel is 0.70 trips per occupied room.
  - b) The PM peak hour rate for LUC 330 Resort Hotel is 0.49 per occupied room.
  - c) The PM peak hour rate for LUC 330 Resort Hotel is 70% of the PM peak hour rate for LUC 310 Hotel.
  - d) The weekday trip generation rate for LUC 330 Resort Hotel is derived by multiplying the weekday trip generation rate for LUC 310 Hotel (8.92) by 0.70.
  - e) The resultant weekday trip generation rate for LUC 330 Resort Hotel is 6.24.
- (8) ITE LUC 932 High-Turnover (Sit-Down) Restaurant fitted curve not provided by ITE - Average rate applied.
- (9) ITE does not offer AM peak hour trip generation rates for LUC 925 Drinking Place. An AM peak hour trip generation rate of 0 is assumed for LUC 925 Drinking Place.
- (10) ITE LUC 926 Drinking Place fitted curve not provided by ITE - Average rate applied.
- (11) ITE does not offer weekday trip generation rates for LUC 925 Drinking Place. A weekday trip generation rate of 113.4 is used (assumes PM peak hour rate is 10% of the weekday).
- (12) ITE does not offer AM peak hour trip generation rates for LUC 826 Specialty Retail. A custom rate has been developed based on the AM and PM peak hour rates for LUC 820 Shopping Center.
  - a) The PM peak hour rate for LUC 820 Shopping Center is 3.71 trips per 1,000 GSF.
  - b) The PM peak hour rate for LUC 826 Specialty Retail is 2.71 trips per 1,000 GSF.
  - c) The PM peak hour rate for LUC 826 Specialty Retail is 73% of the PM peak hour rate for LUC 810 Shopping Center.
  - d) The AM peak hour trip generation rate for LUC 826 Specialty Retail is derived by multiplying the AM peak hour trip generation rate for LUC 820 Shopping Center (0.96) by 0.73.
  - e) The resultant AM peak hour trip generation rate for LUC 826 Specialty Retail is 0.70.
- (13) ITE LUC 826 Specialty Retail fitted curve equation applied.



LEGEND

- XX INBOUND
- (XX) OUTBOUND



INDEPENDENT RESORT

PROJECT TRIP DISTRIBUTION

16537/31A/0217

## Exhibit 7

### Times Square Redevelopment Estero Boulevard Segment Analysis <sup>1</sup>

PCS 44 - Estero Blvd north of Donora Blvd <sup>2</sup>  
2015 AADT = 12,700 VPD

→ Growth Rate <sup>3</sup> = 1.0% → 2020 AADT = 13335 VPD

Hour	NB	SB	Total	Month of Year	Fraction
0	0.83%	0.66%	0.74%	January	1.15
1	0.56%	0.40%	0.48%	February	1.14
2	0.41%	0.30%	0.35%	March	1.1
3	0.24%	0.28%	0.26%	April	1.15
4	0.30%	0.38%	0.34%	May	1.06
5	0.82%	0.80%	0.81%	June	1.06
6	2.11%	2.09%	2.10%	July	1.04
7	4.86%	4.42%	4.64%	August	0.8
8	6.19%	6.37%	6.28%	September	0.77
9	6.81%	7.54%	7.18%	October	0.85
10	6.84%	7.54%	7.19%	November	0.93
11	6.73%	7.43%	7.08%	December	1
12	6.48%	7.33%	6.91%		
13	6.44%	7.06%	6.75%		
14	6.60%	7.18%	6.89%		
15	6.69%	6.85%	6.77%		
16	6.81%	6.31%	6.56%		
17	6.39%	6.26%	6.32%		
18	5.82%	5.88%	5.75%		
19	5.17%	4.78%	4.98%		
20	4.70%	3.90%	4.30%		
21	3.95%	2.96%	3.45%		
22	2.76%	2.27%	2.52%		
23	1.48%	1.23%	1.35%		

Average Monthly Vehicles per Hour Calculated per Policy 7-I-2 of the Comp. Plan for the Town of FMB

→ Average Hourly % (10 AM - 5 PM) =  $\frac{7.19+7.08+6.91+6.75+6.89+6.77+6.56}{7} = 6.88\%$

→ Monthly Average Veh/Hour (10 AM - 5 PM) = 6.88% \* 2020 AADT \* Monthly Fraction

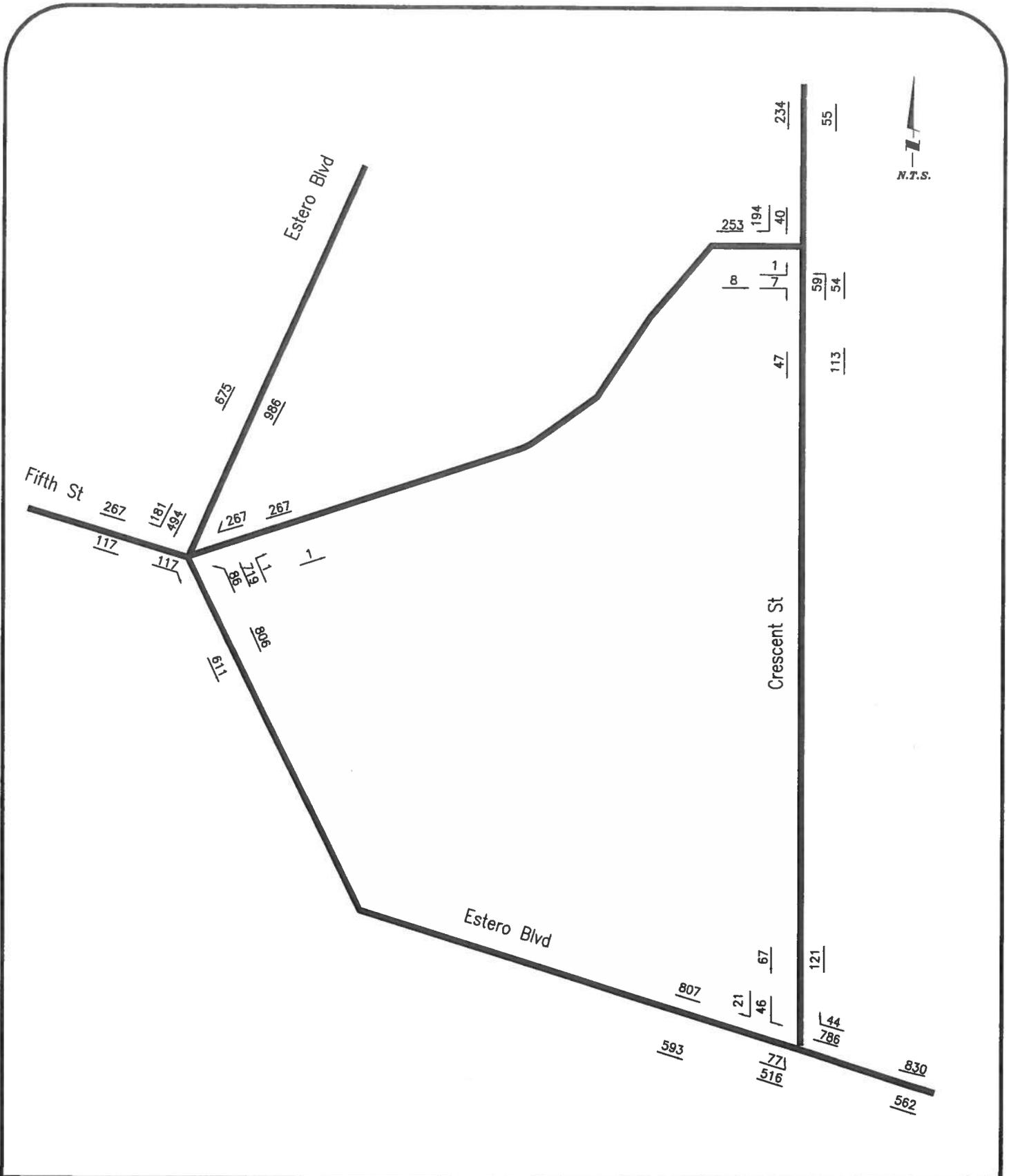
#### Average Monthly Vehicles per Hour

Month	No Development		With Development Trips (2020) <sup>5</sup>		
	2015	2020	Pre-Demolition Development	Build Per Code Development	Proposed Development
January	1005	1055	1159	1351	1141
February	996	1046	1150	1342	1132
March	961	1009	1113	1305	1095
April	1005	1055	1159	1351	1141
May	926	972	1076	1268	1058
June	926	972	1076	1268	1058
July	909	954	1058	1250	1040
August	699	734	838	1030	820
September	673	706	810	1002	792
October	743	780	884	1076	866
November	812	853	957	1149	939
December	874	917	1021	1213	1003

Development Scenario	Project Trips Peak 2-Way <sup>4</sup>	
	%	Trips
Pre-Demolition Development	65%	104
Build per Code Development	65%	296
Proposed Development	65%	86

**Footnotes:**

- (1) Per the Town of Fort Myers Beach Comprehensive Plan Policy 7-I-2. The peak capacity of Estero Boulevard's congested segments is 1,300 vehicles per hour. The minimum acceptable level-of-service standard for Estero Boulevard shall be that average monthly traffic flows from 10:00 A.M. to 5:00 P.M. during each month do not exceed that level for more than four calendar months in any continuous twelve-month period. Measurements from the permanent count station at Donora Boulevard shall be used for this standard.
- (2) Lee County Traffic Count Report 2015 - PCS 44 traffic data encircled in red.
- (3) Linear growth rate. Growth rate developed from Lee County Traffic Count Report 2015 Historical AADT.
- (4) Based on the Project PM peak hour trip generation and assignment.
- (5) 2020 projected average monthly volume plus peak hour, peak 2-way Project traffic.

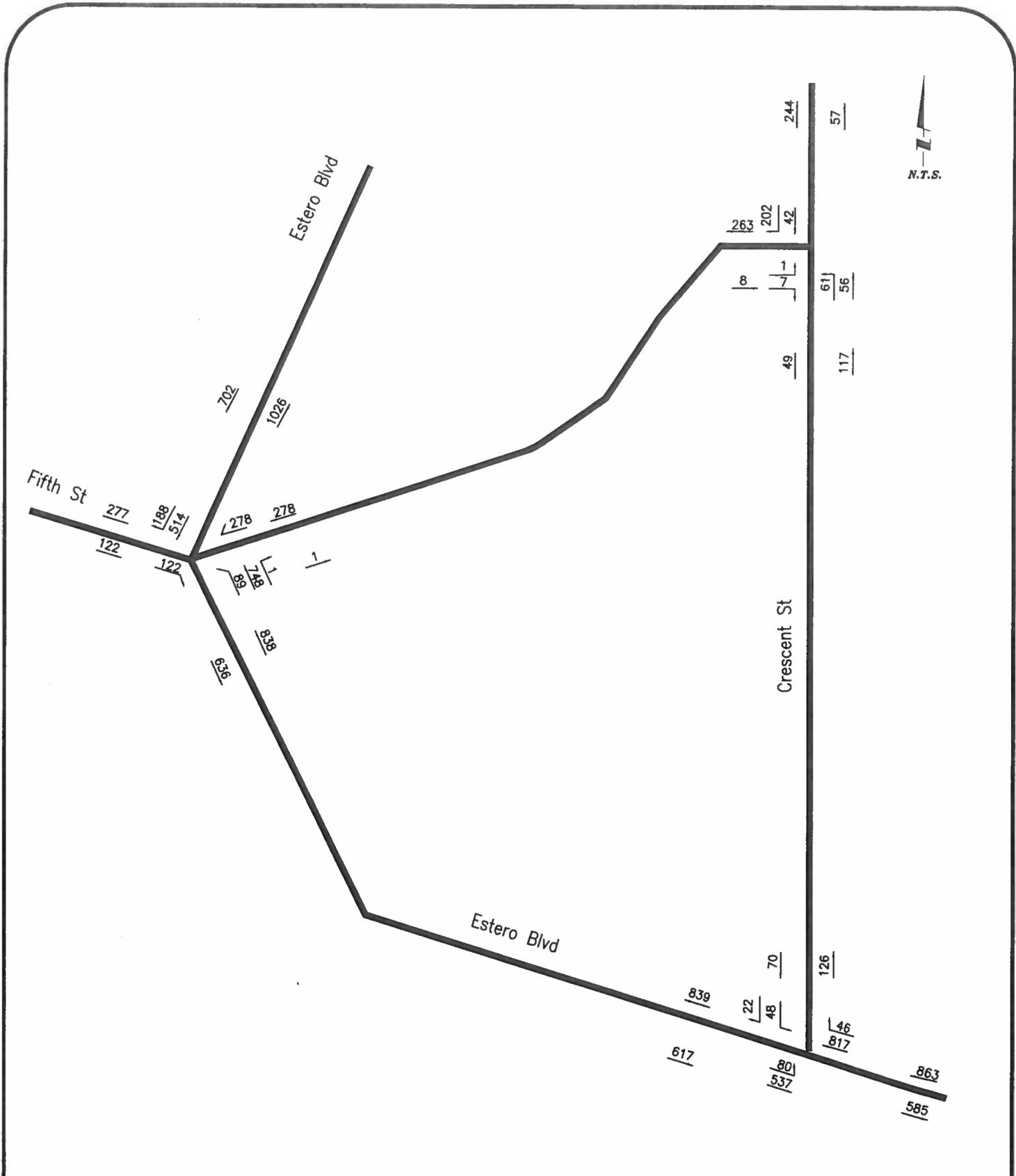


INDEPENDENT RESORT

EXISTING 2016  
TRAFFIC VOLUMES  
PM PEAK HOUR

16537/32A/0217

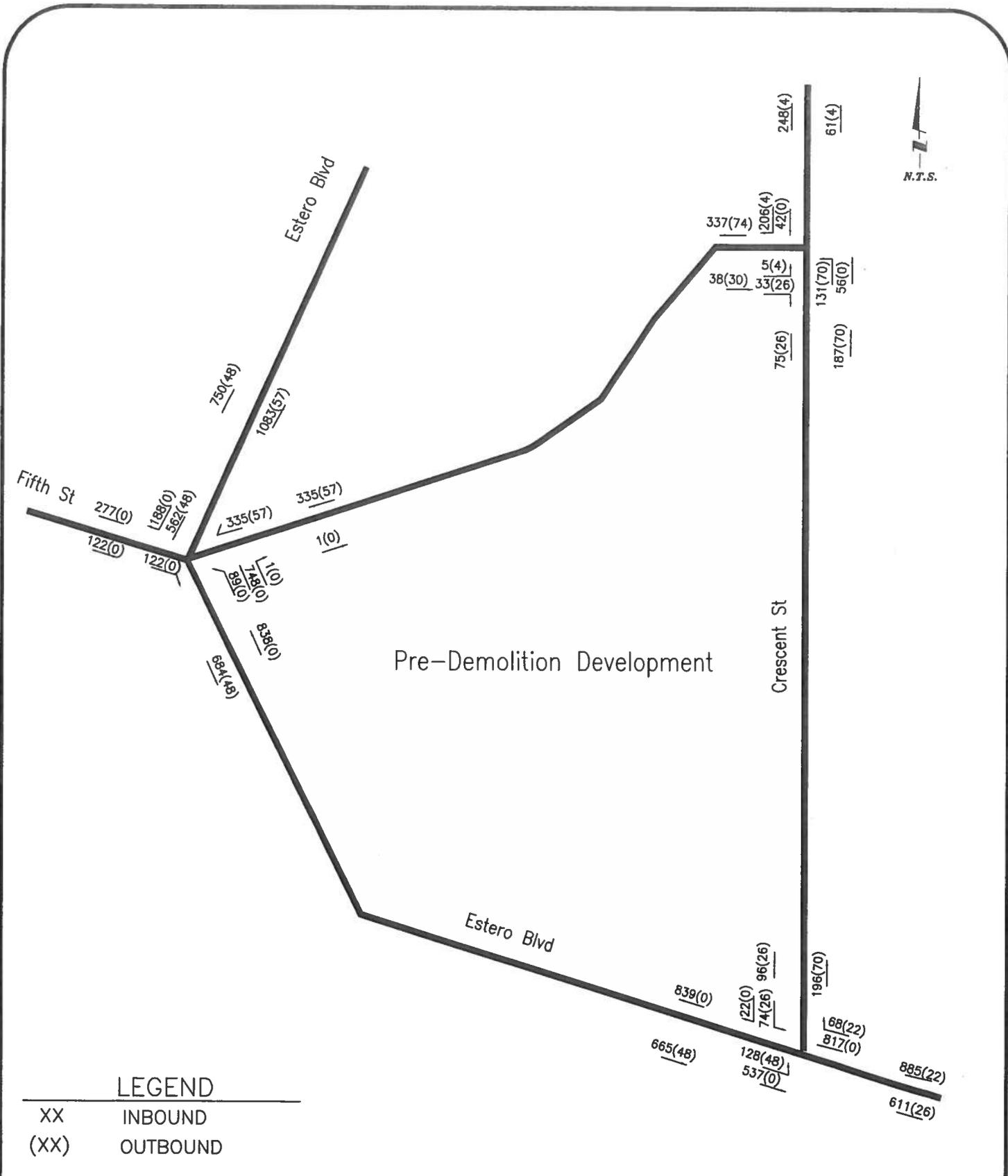
8



INDEPENDENT RESORT

PROJECTED 2020  
BACKGROUND TRAFFIC VOLUMES  
PM PEAK HOUR

16537/33A/0217

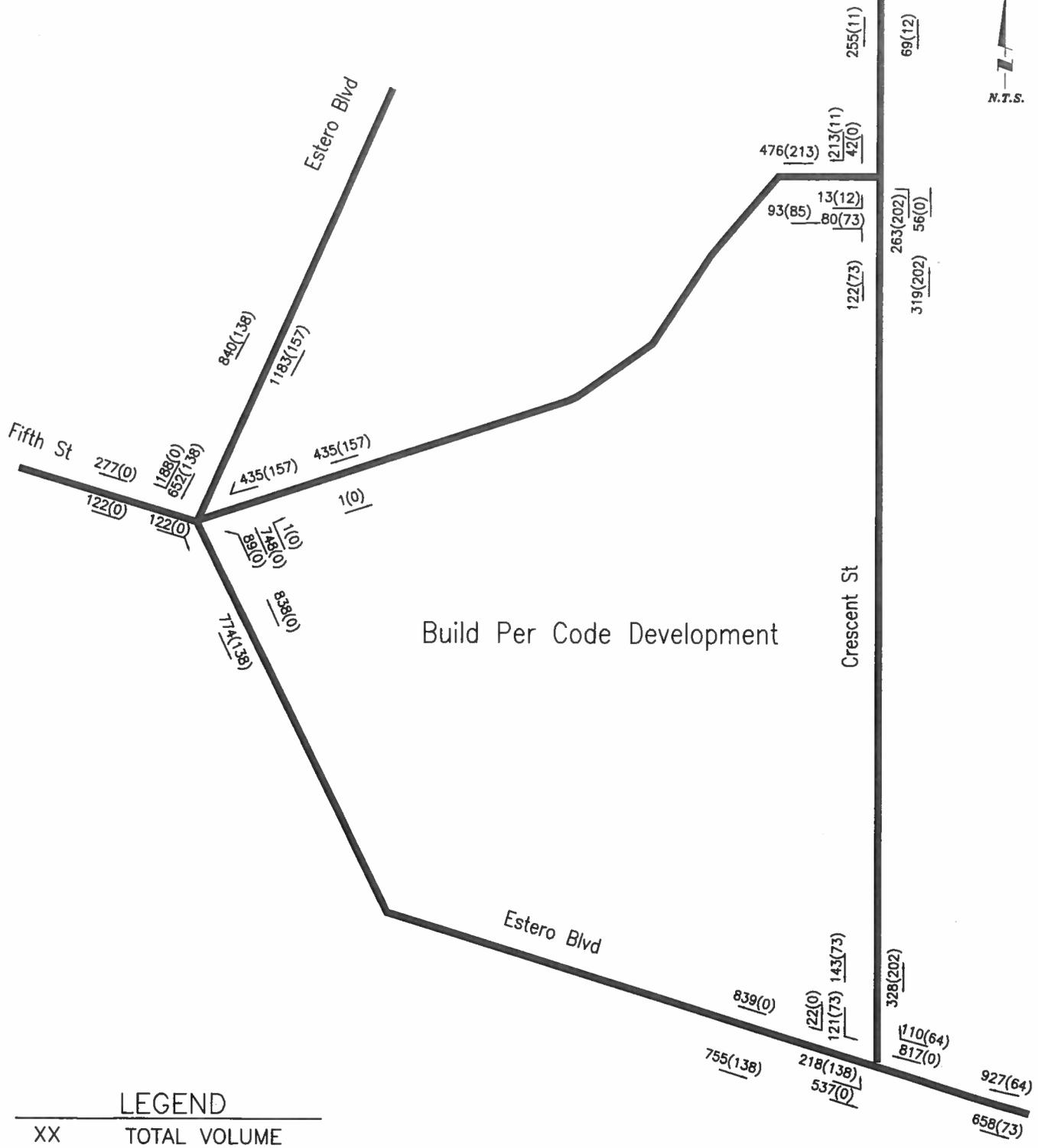


INDEPENDENT RESORT

FUTURE 2020  
 TRAFFIC VOLUMES  
 PM PEAK HOUR

16537/34A/0217

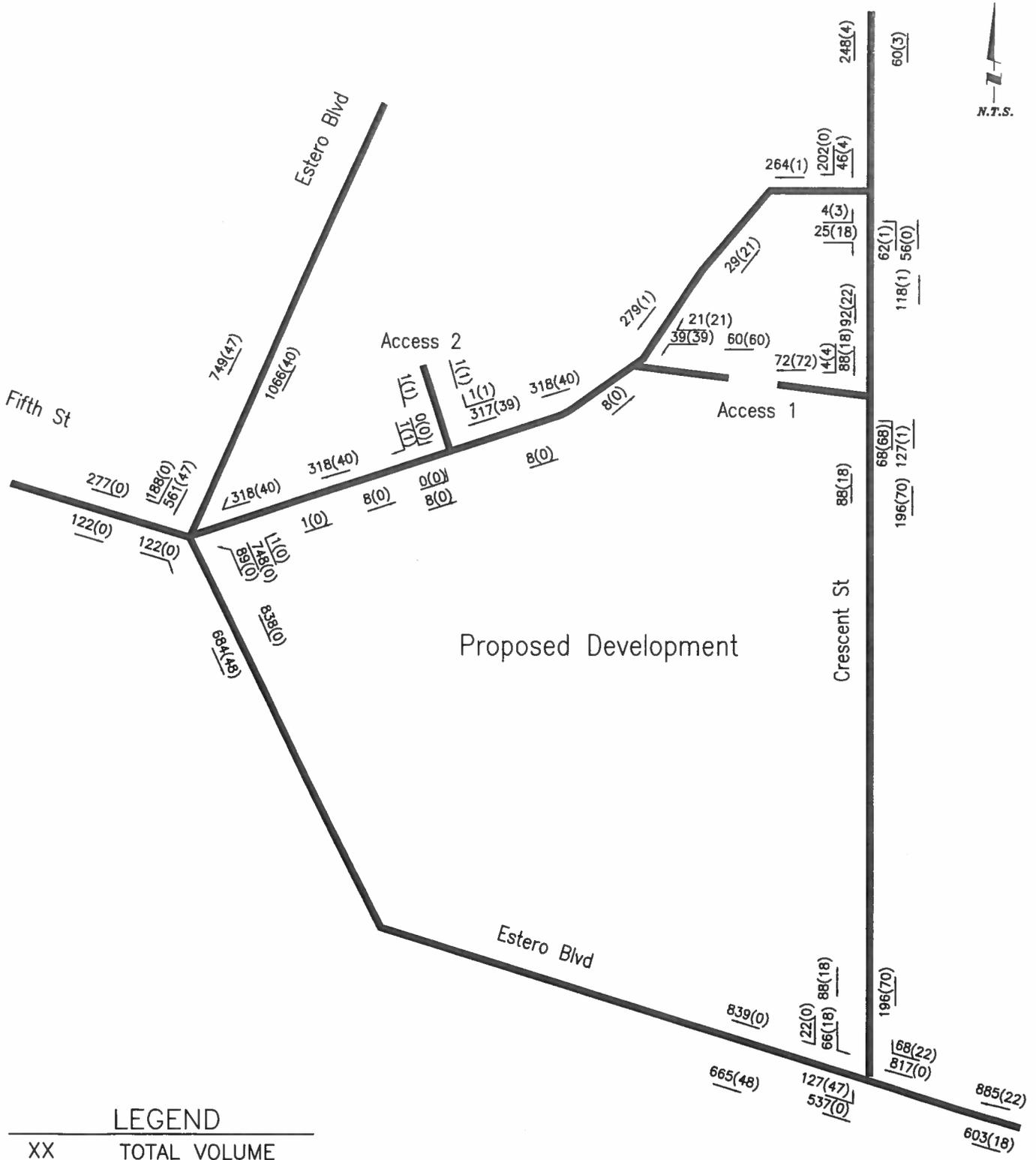
10



INDEPENDENT RESORT

FUTURE 2020  
 TRAFFIC VOLUMES  
 PM PEAK HOUR

16537/35A/0217



**LEGEND**

- XX TOTAL VOLUME
- (XX) NET NEW EXTERNAL



INDEPENDENT RESORT

FUTURE 2020  
TRAFFIC VOLUMES  
PM PEAK HOUR

16537/36A/0217

**APPENDIX A**  
**ITE TRIP GENERATION**  
**DATA AND RATES**

## Land Use: 330 Resort Hotel

### Description

Resort hotels are similar to hotels (Land Use 310) in that they provide sleeping accommodations, restaurants, cocktail lounges, retail shops and guest services. The primary difference is that resort hotels cater to the tourist and vacation industry, often providing a wide variety of recreational facilities/programs (golf courses, tennis courts, beach access, or other amenities) rather than convention and meeting business. Resort hotels are normally located in suburban or outlying locations on larger sites than conventional hotels. Hotel (Land Use 310), all suites hotel (Land Use 311), business hotel (Land Use 312) and motel (Land Use 320) are related uses.

### Additional Data

Eleven studies provided information on occupancy rates at the time the studies were conducted. The average occupancy rate for these studies was approximately 82 percent.

Some properties contained in this land use provide guest transportation services such as airport shuttles, limousine service, or golf course shuttle service, which may have an impact on the overall trip generation rates.

One site surveyed in the San Diego, California area is actually a "motel row" with combined facilities similar to a resort hotel.

The sites were surveyed between the 1970s and the 1990s throughout the United States.

***For all lodging uses, it is important to collect data on occupied rooms as well as total rooms in order to accurately predict trip generation characteristics for the site.***

### Source Numbers

18, 40, 100, 270, 277, 381, 436

## Resort Hotel (330)

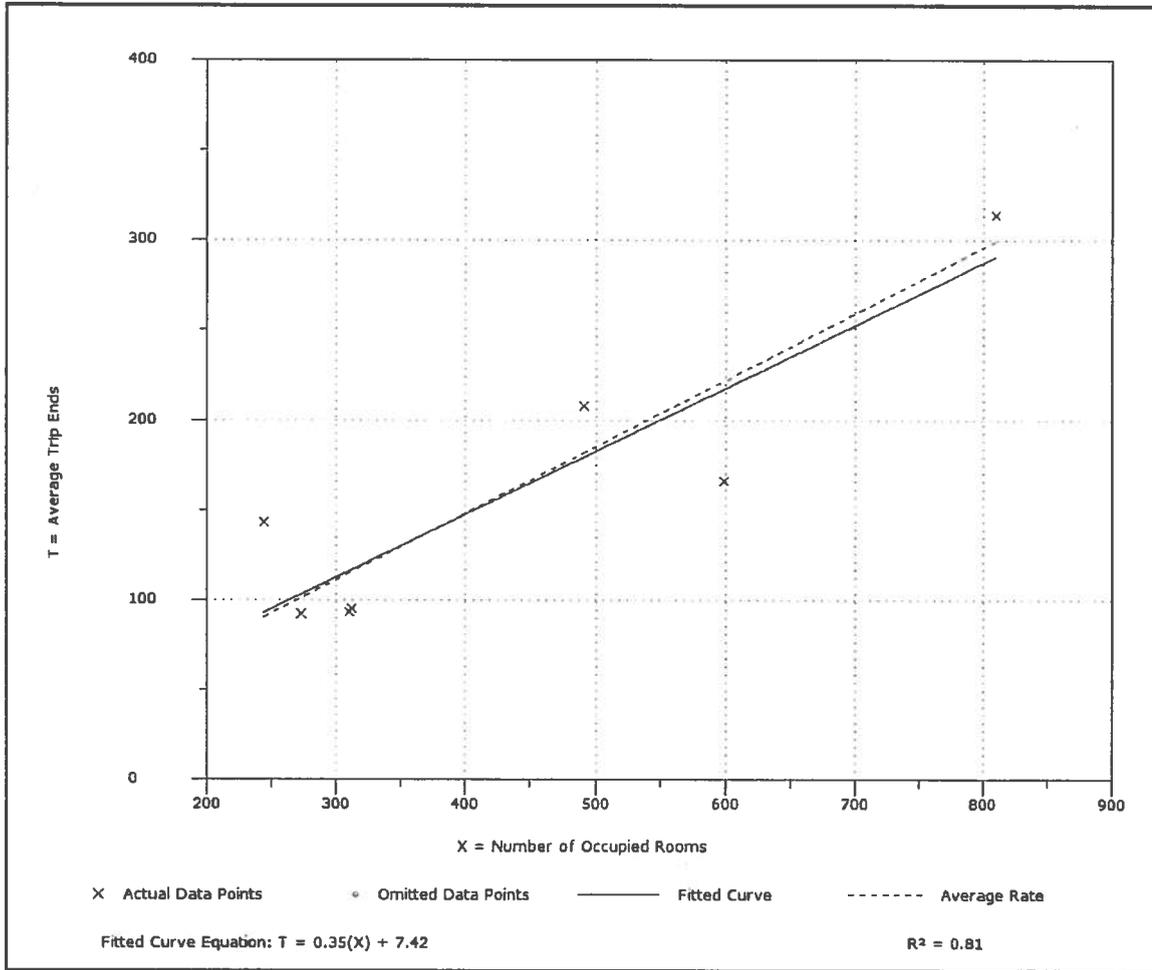
**Average Vehicle Trip Ends vs: Occupied Rooms**  
**On a: Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.**

Number of Studies: 7  
 Average Number of Occupied Rooms: 434  
 Directional Distribution: 72% entering, 28% exiting

### Trip Generation per Occupied Room

Average Rate	Range of Rates	Standard Deviation
0.37	0.28 - 0.59	0.09

### Data Plot and Equation



Trip Generation, ITE-TGM 8th Edition

## Resort Hotel (330)

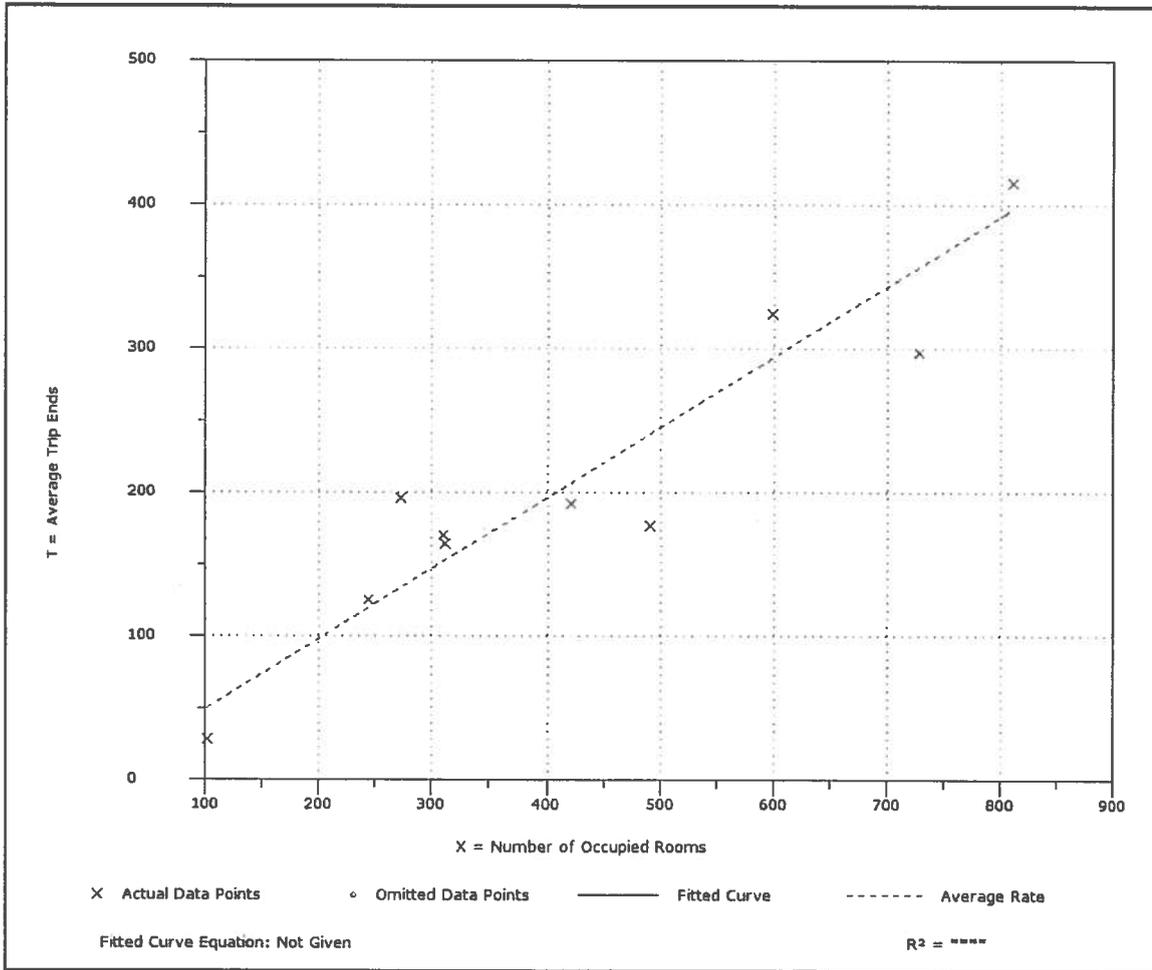
**Average Vehicle Trip Ends vs: Occupied Rooms**  
**On a: Weekday,**  
**Peak Hour of Adjacent Street Traffic,**  
**One Hour Between 4 and 6 p.m.**

Number of Studies: 10  
 Average Number of Occupied Rooms: 429  
 Directional Distribution: 43% entering, 57% exiting

### Trip Generation per Occupied Room

Average Rate	Range of Rates	Standard Deviation
0.49	0.27 - 0.72	0.10

### Data Plot and Equation



Trip Generation, ITE-TGM 9th Edition

# Land Use: 820

## Shopping Center

### Description

A shopping center is an integrated group of commercial establishments that is planned, developed, owned and managed as a unit. A shopping center's composition is related to its market area in terms of size, location and type of store. A shopping center also provides on-site parking facilities sufficient to serve its own parking demands. Specialty retail center (Land Use 826) and factory outlet center (Land Use 823) are related uses.

### Additional Data

Shopping centers, including neighborhood centers, community centers, regional centers and super regional centers, were surveyed for this land use. Some of these centers contained non-merchandising facilities, such as office buildings, movie theaters, restaurants, post offices, banks, health clubs and recreational facilities (for example, ice skating rinks or indoor miniature golf courses). The centers ranged in size from 1,700 to 2.2 million square feet gross leasable area (GLA). The centers studied were located in suburban areas throughout the United States and, therefore, represent typical U.S. suburban conditions.

**Many shopping centers, in addition to the integrated unit of shops in one building or enclosed around a mall, include outparcels (peripheral buildings or pads located on the perimeter of the center adjacent to the streets and major access points). These buildings are typically drive-in banks, retail stores, restaurants, or small offices. Although the data herein do not indicate which of the centers studied included peripheral buildings, it can be assumed that some of the data show their effect.**

The vehicle trips generated at a shopping center are based upon the total GLA of the center. In cases of smaller centers without an enclosed mall or peripheral buildings, the GLA could be the same as the gross floor area of the building.

Separate equations have been developed for shopping centers during the Christmas shopping season. Plots were included for the weekday peak hour of adjacent street traffic and the Saturday peak hour of the generator.

**Information on approximate hourly, monthly and daily variation in shopping center traffic is shown in Tables 1–3. It should be noted, however, that the information contained in these tables is based on a limited sample size. Therefore, caution should be exercised when applying the data. Also, some information provided in the tables may conflict with the results obtained by applying the average rate or regression equations. When this occurs, it is suggested that the results from the average rate or regression equations be used, as they are based on a larger number of studies.**

Time	Average Weekday <sup>a</sup>		Average Saturday <sup>b</sup>		Average Sunday <sup>c</sup>	
	Percent of 24-Hour Entering Traffic	Percent of 24-Hour Exiting Traffic	Percent of 24-Hour Entering Traffic	Percent of 24-Hour Exiting Traffic	Percent of 24-Hour Entering Traffic	Percent of 24-Hour Exiting Traffic
6 a.m.–7 a.m.	0.8	0.3	0.2	0.2	0.2	0.1
7 a.m.–8 a.m.	2.0	0.9	0.9	0.4	0.4	0.3
8 a.m.–9 a.m.	3.1	1.2	2.7	1.0	0.9	0.5
9 a.m.–10 a.m.	5.5	2.0	5.5	2.2	1.7	1.1
10 a.m.–11 a.m.	7.0	4.3	8.6	4.8	3.8	2.5
11 a.m.–12 p.m.	8.4	6.2	10.8	7.5	10.0	4.6
12 p.m.–1 p.m.	9.4	8.3	11.8	9.3	15.1	7.9
1 p.m.–2 p.m.	8.2	8.6	12.1	10.3	16.7	12.0
2 p.m.–3 p.m.	7.7	8.9	11.8	11.8	15.8	14.7
3 p.m.–4 p.m.	7.8	8.8	10.7	12.5	13.0	15.6
4 p.m.–5 p.m.	8.0	8.9	8.8	12.5	9.4	15.8
5 p.m.–6 p.m.	8.4	9.2	5.3	11.3	5.1	13.0
6 p.m.–7 p.m.	8.0	7.5	3.3	6.7	2.3	4.6
7 p.m.–8 p.m.	7.9	7.2	2.7	2.9	1.7	1.9
8 p.m.–9 p.m.	4.3	7.7	1.8	2.2	1.1	1.3
9 p.m.–10 p.m.	1.8	7.2	1.0	1.6	0.7	1.1
10 p.m.–6 a.m.	1.7	2.8	2.0	2.8	2.1	3.0

Sites ranged in size from 11,000 to 1,750,000 square feet gross leasable area

<sup>a</sup> Source numbers – 13, 73, 88, 190, 217, 220, 225 and 376; based on ten studies

<sup>b</sup> Source numbers – 13, 73, 88, 190, 220, 225 and 376; based on nine studies

<sup>c</sup> Source numbers – 13, 73, 88, 190, 220 and 225; based on eight studies

Day	Less than 100,000 Square Feet GLA	100,000 to 300,000 Square Feet GLA	More than 300,000 Square Feet GLA	Discount Center
Sunday	45.2	65.4	77.4	82.1
Monday	97.3	96.8	96.8	95.1
Tuesday	92.9	103.1	97.1	91.4
Wednesday	92.7	99.1	93.6	94.8
Thursday	98.2	85.3	97.1	99.5
Friday	118.9	108.7	115.4	119.2
Saturday	128.5	113.4	128.0	151.0
Sample Size	6	8	17	2

Source numbers: 88, 124

Month	Percentage	Month	Percentage
January	85.3	July	100.8
February	78.1	August	102.1
March	92.0	September	94.8
April	93.2	October	98.9
May	105.4	November	101.5
June	106.0	December	141.8

Sample size: 2

Average gross leasable area: 938,000 square feet

The sites were surveyed between the 1960s and the 2000s throughout the United States and Canada.

### Specialized Land Use Data

Two studies provided data on outdoor shopping centers in Illinois and Alberta, Canada. The trip generation characteristics of these sites varied from the other stores in this land use; therefore, the information collected for these facilities is presented in the following tables and was excluded from the data plots.

<u>Independent Variable</u>	<u>Average Trip Generation Rate</u>	<u>Size of Independent Variable</u>	<u>Number of Studies</u>	<u>Directional Distribution</u>
<b>1,000 Square Feet Gross Leasable Area</b>				
Weekday	66.64	797	2	Not available
Weekday A.M. Peak Hour of Adjacent Street Traffic	3.27	797	2	Not available
Weekday P.M. Peak Hour of Adjacent Street Traffic	5.46	797	2	Not available

Sources: 446, 702

### Source Numbers

1, 2, 3, 4, 5, 6, 13, 14, 18, 19, 22, 26, 40, 42, 48, 49, 54, 59, 60, 61, 64, 65, 72, 73, 75, 76, 77, 78, 79, 87, 89, 90, 98, 99, 100, 105, 110, 124, 156, 159, 172, 186, 193, 194, 195, 196, 197, 198, 199, 202, 204, 211, 213, 260, 263, 269, 295, 299, 300, 301, 304, 305, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 358, 365, 376, 385, 390, 400, 404, 414, 420, 423, 428, 437, 440, 442, 444, 446, 507, 562, 563, 580, 598, 629, 658, 702, 715, 728

## Shopping Center (820)

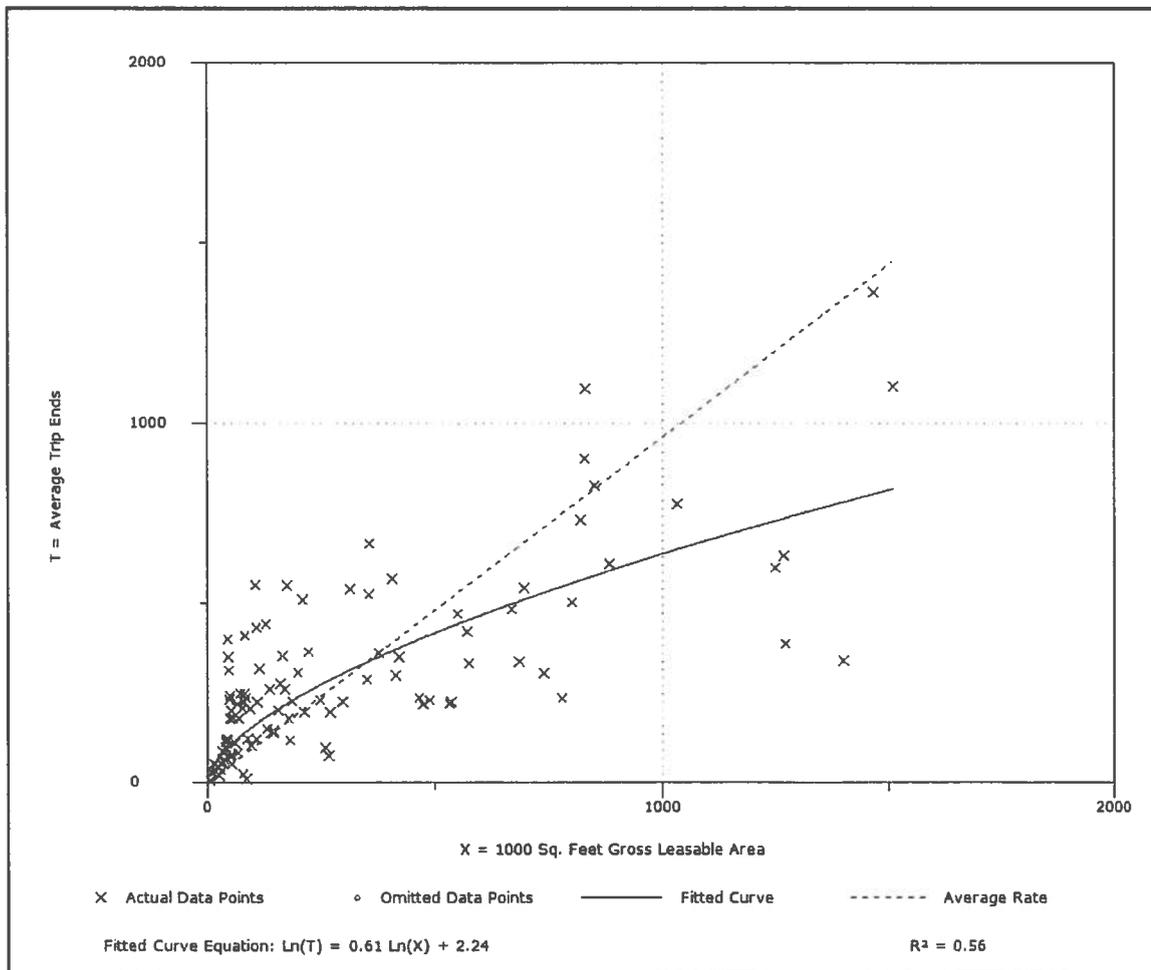
**Average Vehicle Trip Ends vs: 1000 Sq. Feet Gross Leasable Area**  
**On a: Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.**

Number of Studies: 104  
 Average 1000 Sq. Feet GLA: 310  
 Directional Distribution: 62% entering, 38% exiting

### Trip Generation per 1000 Sq. Feet Gross Leasable Area

Average Rate	Range of Rates	Standard Deviation
0.96	0.10 - 9.05	0.87

### Data Plot and Equation



Trip Generation, ITE-TGM 9th Edition

## Shopping Center (820)

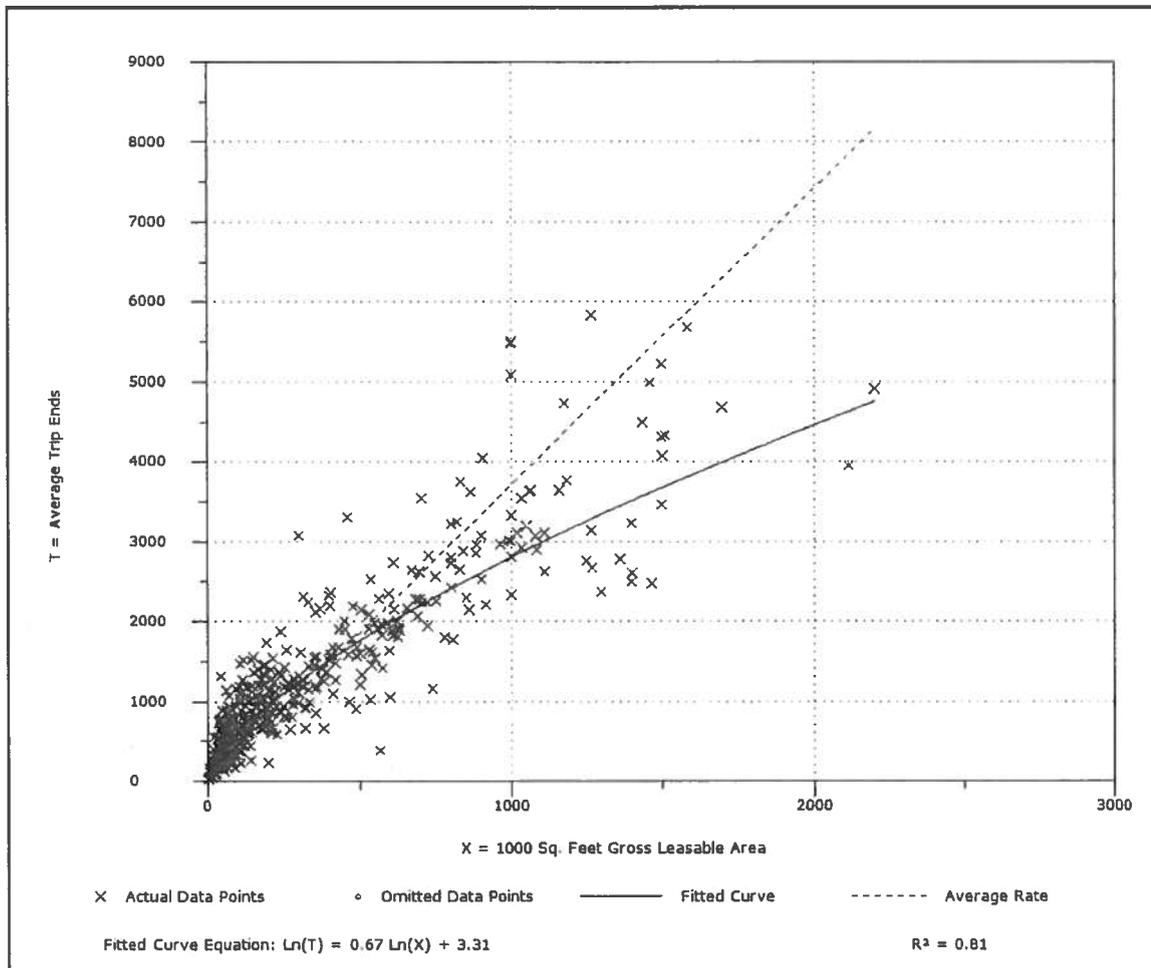
**Average Vehicle Trip Ends vs: 1000 Sq. Feet Gross Leasable Area  
On a: Weekday,  
Peak Hour of Adjacent Street Traffic,  
One Hour Between 4 and 6 p.m.**

Number of Studies: 426  
Average 1000 Sq. Feet GLA: 376  
Directional Distribution: 48% entering, 52% exiting

### Trip Generation per 1000 Sq. Feet Gross Leasable Area

Average Rate	Range of Rates	Standard Deviation
3.71	0.68 - 29.27	1.95

### Data Plot and Equation



Trip Generation, ITE-TGM 9th Edition

## Shopping Center (820)

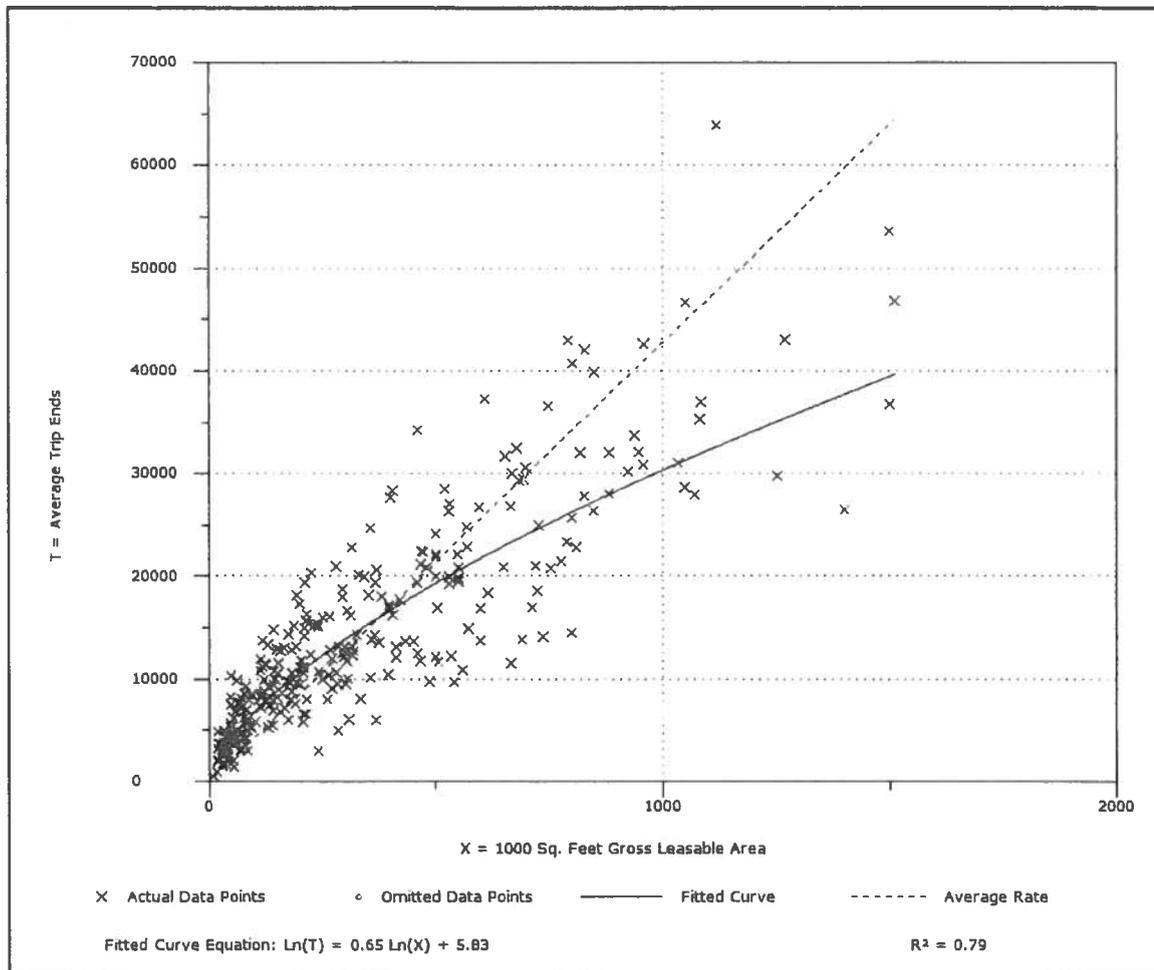
**Average Vehicle Trip Ends vs: 1000 Sq. Feet Gross Leasable Area**  
**On a: Weekday**

Number of Studies: 302  
 Average 1000 Sq. Feet GLA: 331  
 Directional Distribution: 50% entering, 50% exiting

### Trip Generation per 1000 Sq. Feet Gross Leasable Area

Average Rate	Range of Rates	Standard Deviation
42.70	12.50 - 270.89	20.26

### Data Plot and Equation



Trip Generation, ITE-TQM 8th Edition

# Land Use: 826

## Specialty Retail Center

### Description

Specialty retail centers are generally small strip shopping centers that contain a variety of retail shops and specialize in quality apparel, hard goods and services, such as real estate offices, dance studios, florists and small restaurants. Shopping center (Land Use 820) is a related use.

### Additional Data

The sites were surveyed between the late 1970s and the 2000s in California, Florida, Georgia, New York and Pennsylvania.

### Source Numbers

100, 304, 305, 367, 423, 507, 577

## Specialty Retail Center (826)

**Average Vehicle Trip Ends vs: 1000 Sq. Feet Gross Leasable Area**  
**On a: Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.**

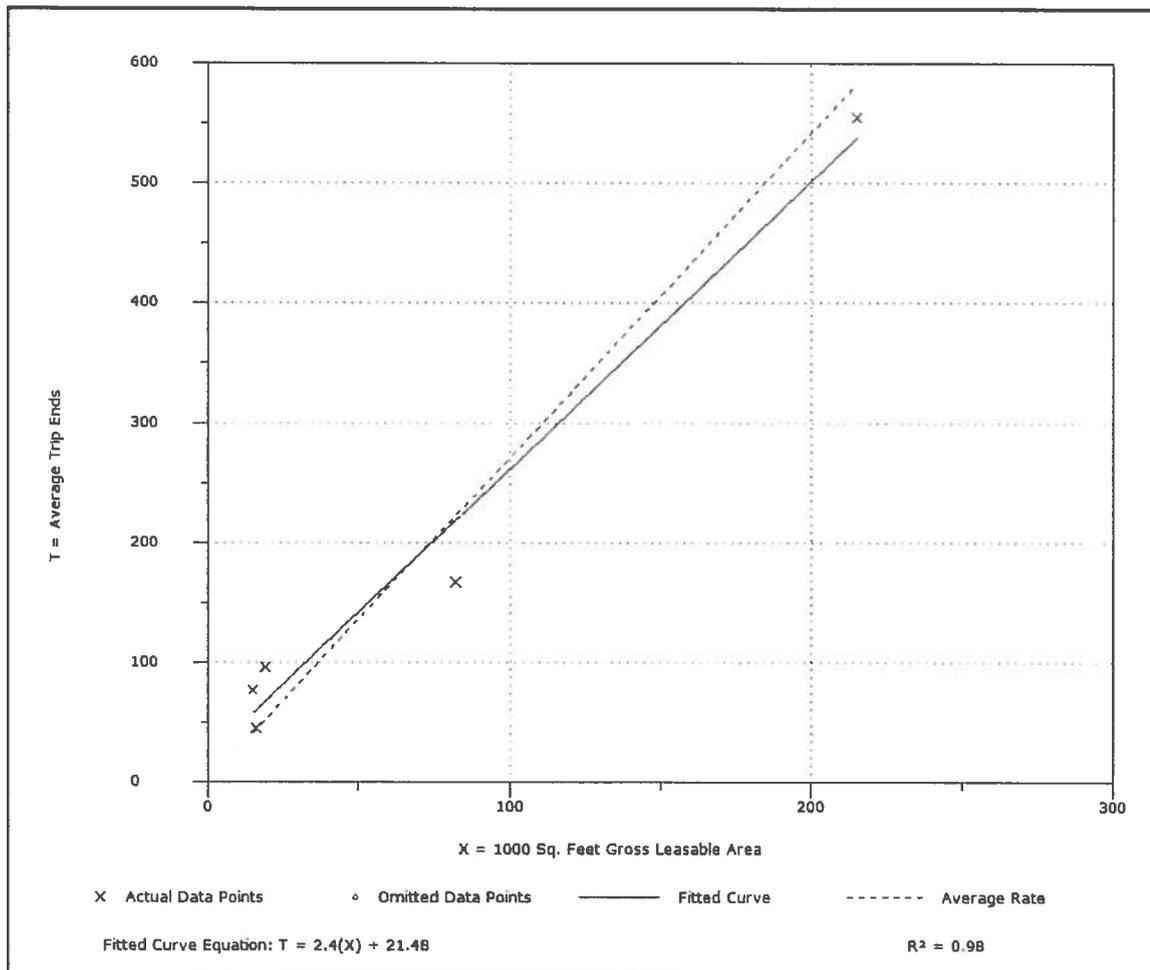
Number of Studies: 5  
 Average 1000 Sq. Feet GLA: 69  
 Directional Distribution: 44% entering, 56% exiting

### Trip Generation per 1000 Sq. Feet Gross Leasable Area

Average Rate	Range of Rates	Standard Deviation
2.71	2.03 - 5.16	0.93

### Data Plot and Equation

*Caution - Use Carefully - Small Sample Size*



Trip Generation, ITE-TGM 9th Edition

## Specialty Retail Center (826)

**Average Vehicle Trip Ends vs: 1000 Sq. Feet Gross Leasable Area**  
**On a: Weekday**

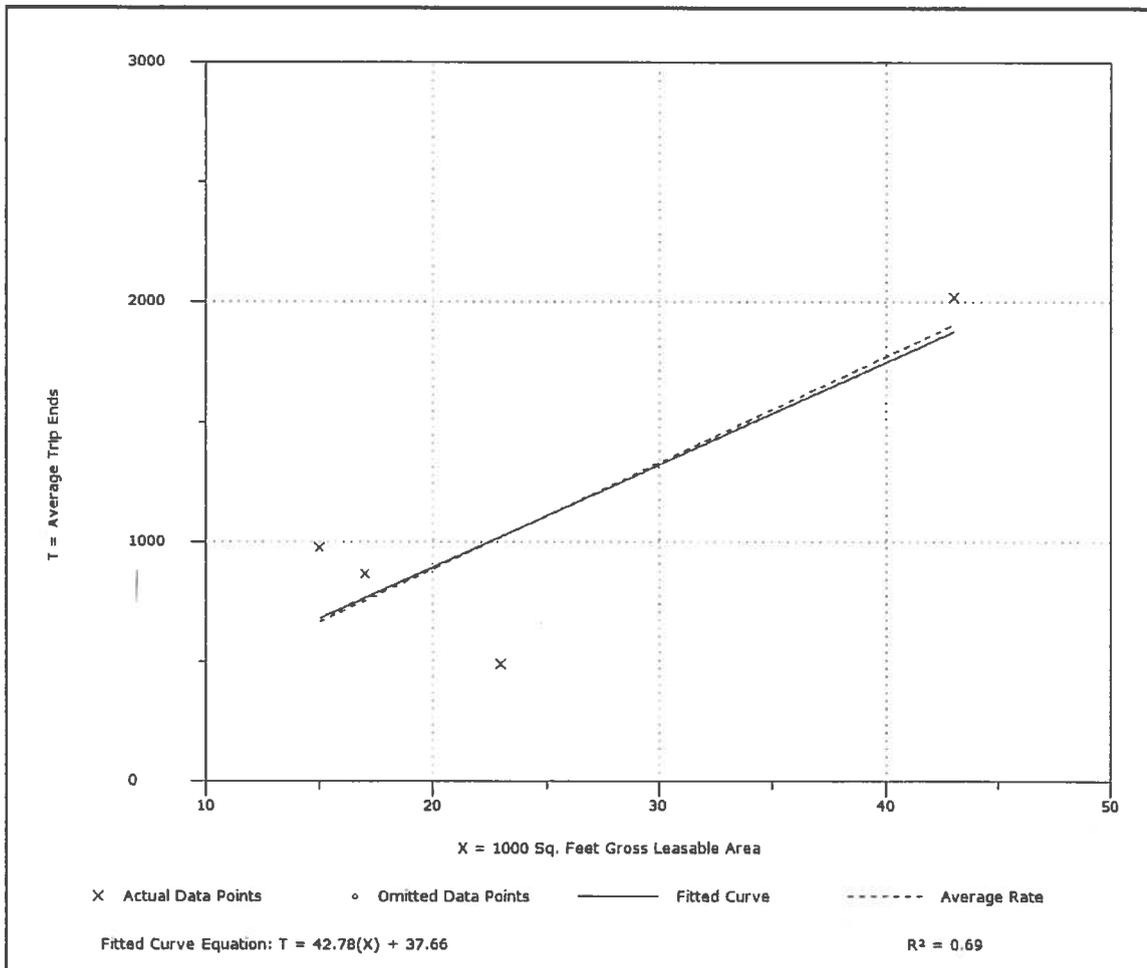
Number of Studies: 4  
 Average 1000 Sq. Feet GLA: 25  
 Directional Distribution: 50% entering, 50% exiting

### Trip Generation per 1000 Sq. Feet Gross Leasable Area

Average Rate	Range of Rates	Standard Deviation
44.32	21.30 - 64.21	16.17

### Data Plot and Equation

*Caution - Use Carefully - Small Sample Size*



Trip Generation, ITE-TGM 9th Edition

## **Land Use: 925 Drinking Place**

### **Description**

A drinking place contains a bar, where alcoholic beverages and food are sold, and possibly some type of entertainment, such as music, television screens, video games, or pool tables. Establishments that specialize in serving food but also have bars are not included in this land use.

### **Additional Data**

The sites were surveyed in 1987, 1995 and 1997 in Colorado, Oregon and South Dakota.

### **Source Numbers**

291, 358, 583

## Drinking Place (925)

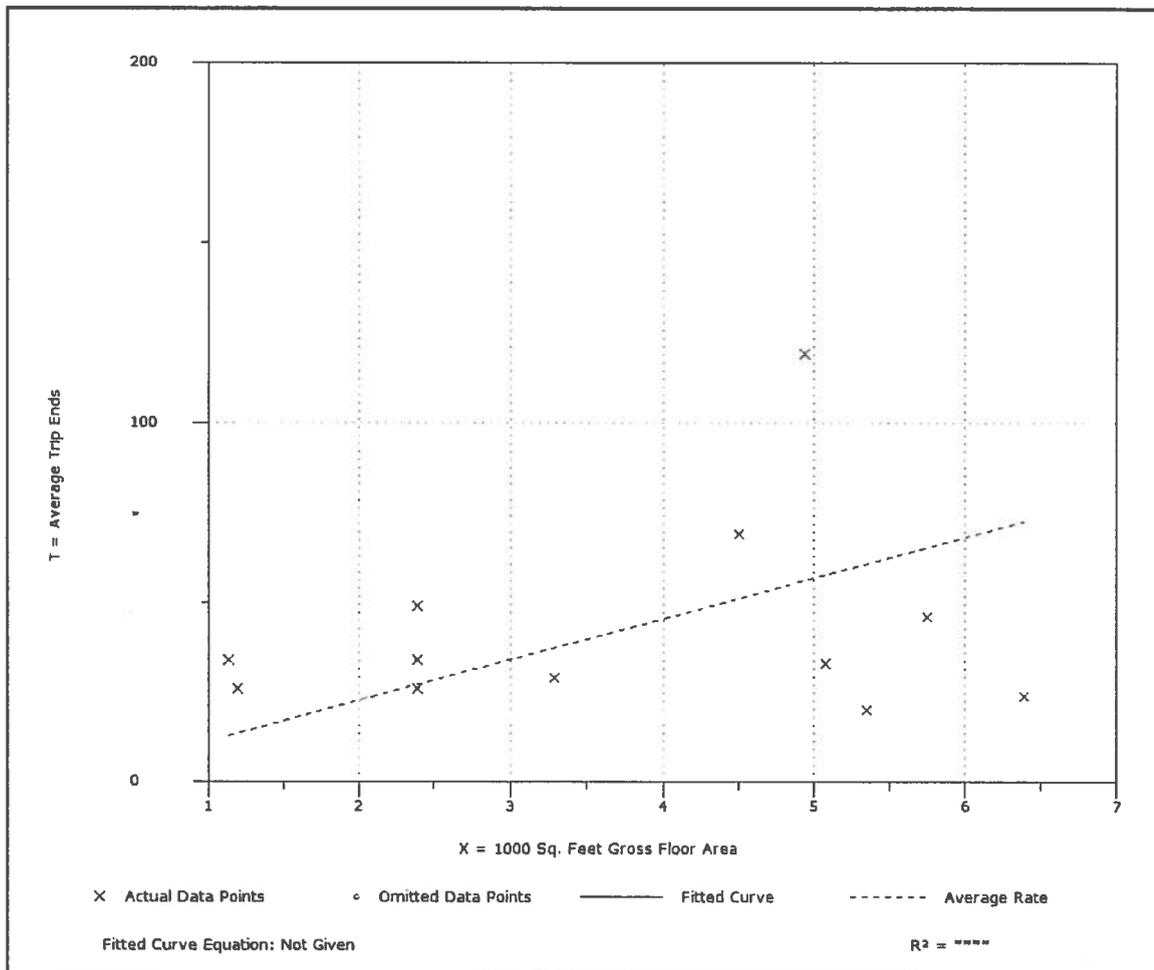
**Average Vehicle Trip Ends vs: 1000 Sq. Feet Gross Floor Area**  
**On a: Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.**

Number of Studies: 12  
 Average 1000 Sq. Feet GFA: 4  
 Directional Distribution: 66% entering, 34% exiting

### Trip Generation per 1000 Sq. Feet Gross Floor Area

Average Rate	Range of Rates	Standard Deviation
11.34	3.73 - 29.98	7.79

### Data Plot and Equation



Trip Generation. ITE-TGM 9th Edition

## Land Use: 932

### High-Turnover (Sit-Down) Restaurant

#### Description

This land use consists of sit-down, full-service eating establishments with typical duration of stay of approximately one hour. This type of restaurant is usually moderately priced and frequently belongs to a restaurant chain. Generally, these restaurants serve lunch and dinner; they may also be open for breakfast and are sometimes open 24 hours per day. These restaurants typically do not take reservations. Patrons commonly wait to be seated, are served by a waiter/waitress, order from menus and pay for their meal after they eat. Some facilities contained within this land use may also contain a bar area for serving food and alcoholic drinks. Quality restaurant (Land Use 931), fast-food restaurant without drive-through window (Land Use 933), fast-food restaurant with drive-through window (Land Use 934) and fast-food restaurant with drive-through window and no indoor seating (Land Use 935) are related uses.

#### Additional Data

***Users should exercise caution when applying statistics during the A.M. peak periods, as the sites contained in the database for this land use may or may not be open for breakfast. In cases where it was confirmed that the sites were not open for breakfast, data for the A.M. peak hour of the adjacent street traffic were removed from the database.***

Information on approximate hourly variation in high-turnover (sit-down) restaurant traffic is shown in the following table. It should be noted, however, that the information contained in this table is based on a limited sample size. Therefore, caution should be exercised when applying the data. Also, some information provided in the table may conflict with the results obtained by applying the average rate or regression equations. When this occurs, it is suggested that the results from the average rate or regression equations be used, as they are based on a larger number of studies.

Hourly Variation in High-Turnover (Sit-Down) Restaurant Traffic						
Time	Average Weekday <sup>a</sup>		Average Saturday <sup>b</sup>		Average Sunday <sup>c</sup>	
	Percent of 24-Hour Entering Traffic	Percent of 24-Hour Exiting Traffic	Percent of 24-Hour Entering Traffic	Percent of 24-Hour Exiting Traffic	Percent of 24-Hour Entering Traffic	Percent of 24-Hour Exiting Traffic
6 a.m.–7 a.m.	1.5	0.8	0.9	0.6	0.1	0.4
7 a.m.–8 a.m.	3.0	1.7	2.2	1.0	0.9	1.3
8 a.m.–9 a.m.	3.6	2.3	4.1	2.8	1.7	0.1
9 a.m.–10 a.m.	4.1	2.7	4.1	3.5	1.4	1.2
10 a.m.–11 a.m.	3.3	3.2	4.6	3.7	2.3	4.2
11 a.m.–12 p.m.	7.4	3.8	4.6	4.0	5.5	2.6
12 p.m.–1 p.m.	8.6	6.6	5.1	3.6	8.8	3.9
1 p.m.–2 p.m.	4.8	8.6	4.4	4.3	6.6	8.2
2 p.m.–3 p.m.	3.2	5.5	3.8	4.3	5.9	5.1
3 p.m.–4 p.m.	3.0	4.0	3.6	3.5	8.7	7.2
4 p.m.–5 p.m.	5.6	4.5	4.5	4.0	10.0	8.4
5 p.m.–6 p.m.	9.7	4.6	7.1	4.3	12.4	10.5
6 p.m.–7 p.m.	10.7	7.9	9.9	6.7	11.3	10.0
7 p.m.–8 p.m.	9.5	9.0	8.5	7.3	8.7	9.3
8 p.m.–9 p.m.	7.7	9.0	8.1	8.5	5.9	8.0
9 p.m.–10 p.m.	4.9	8.6	6.5	7.3	4.2	7.5
10 p.m.–6 a.m.	9.4	17.2	18.0	30.6	5.6	12.1

Sites ranged in size from 4,500 to 21,000 square feet gross floor area

<sup>a</sup> Source numbers – 13, 88,126, 507 and The Traffic Group, Inc.; based on seven studies

<sup>b</sup> Source numbers – 13, 88,126 and The Traffic Group, Inc.; based on five studies

<sup>c</sup> Source numbers – 13, 88 and 126; based on three studies

Vehicle occupancy ranged from 1.39 to 1.69 persons per automobile on an average weekday. The average for the sites surveyed was approximately 1.52.

Five sites submitted for inclusion in this land use indicated the presence of an on-site pick-up window. From the limited data sample, it does not appear that the presence of a pick-up window had a significant impact on trip generation.

The outdoor seating area is not included in the overall gross floor area. Therefore, the number of seats may be a more reliable independent variable on which to establish trip generation rates for facilities having significant outdoor seating.

The sites were surveyed between the 1960s and the 2000s throughout the United States.

### Source Numbers

2, 4, 5, 72, 90, 100, 126, 269, 275, 280, 300, 301, 305, 338, 340, 341, 358, 384, 424, 432, 437, 438, 444, 507, 555, 577, 589, 617, 618, 728

## High-Turnover (Sit-Down) Restaurant (932)

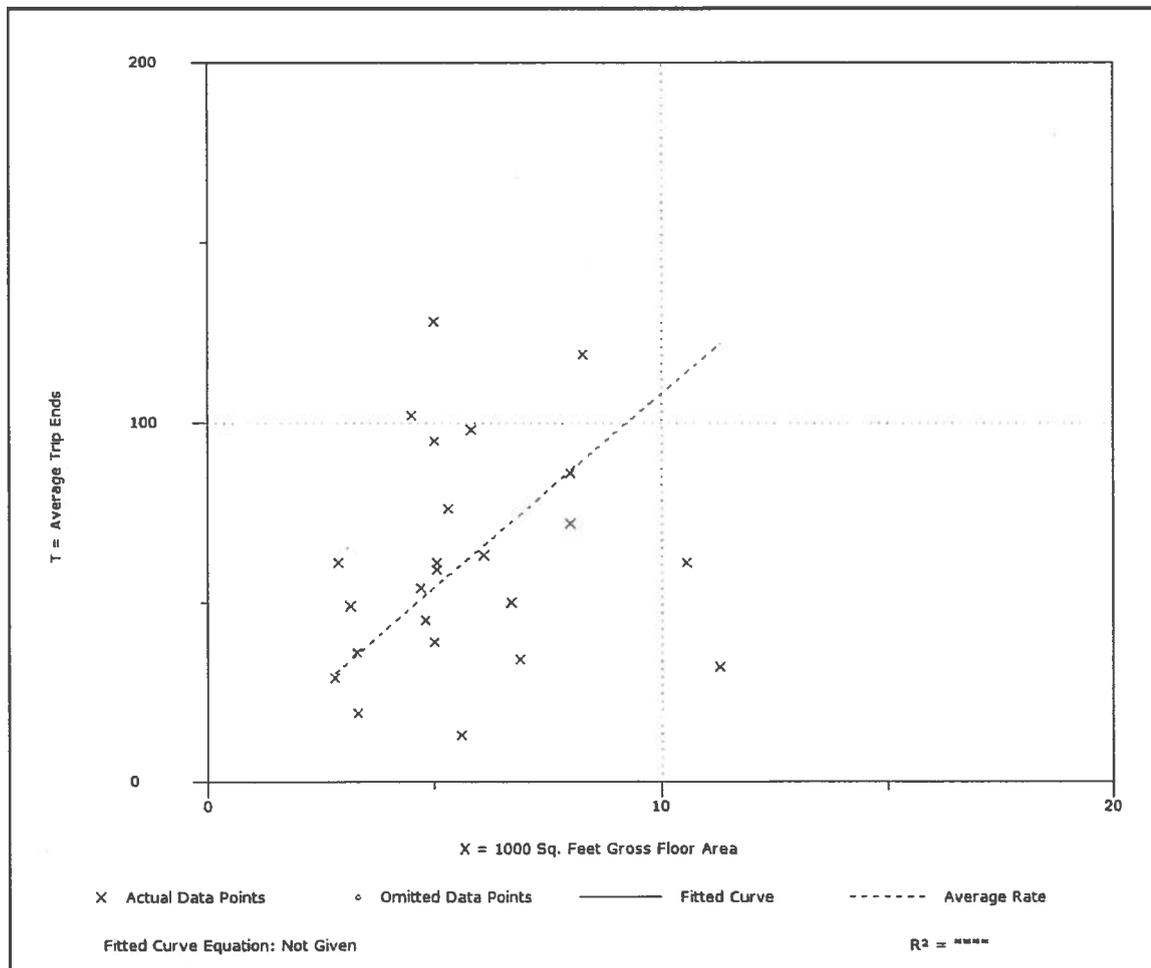
**Average Vehicle Trip Ends vs: 1000 Sq. Feet Gross Floor Area**  
**On a: Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.**

Number of Studies: 24  
 Average 1000 Sq. Feet GFA: 6  
 Directional Distribution: 55% entering, 45% exiting

### Trip Generation per 1000 Sq. Feet Gross Floor Area

Average Rate	Range of Rates	Standard Deviation
10.81	2.32 - 25.60	5.99

### Data Plot and Equation



Trip Generation, ITE-TGM 8th Edition

## High-Turnover (Sit-Down) Restaurant (932)

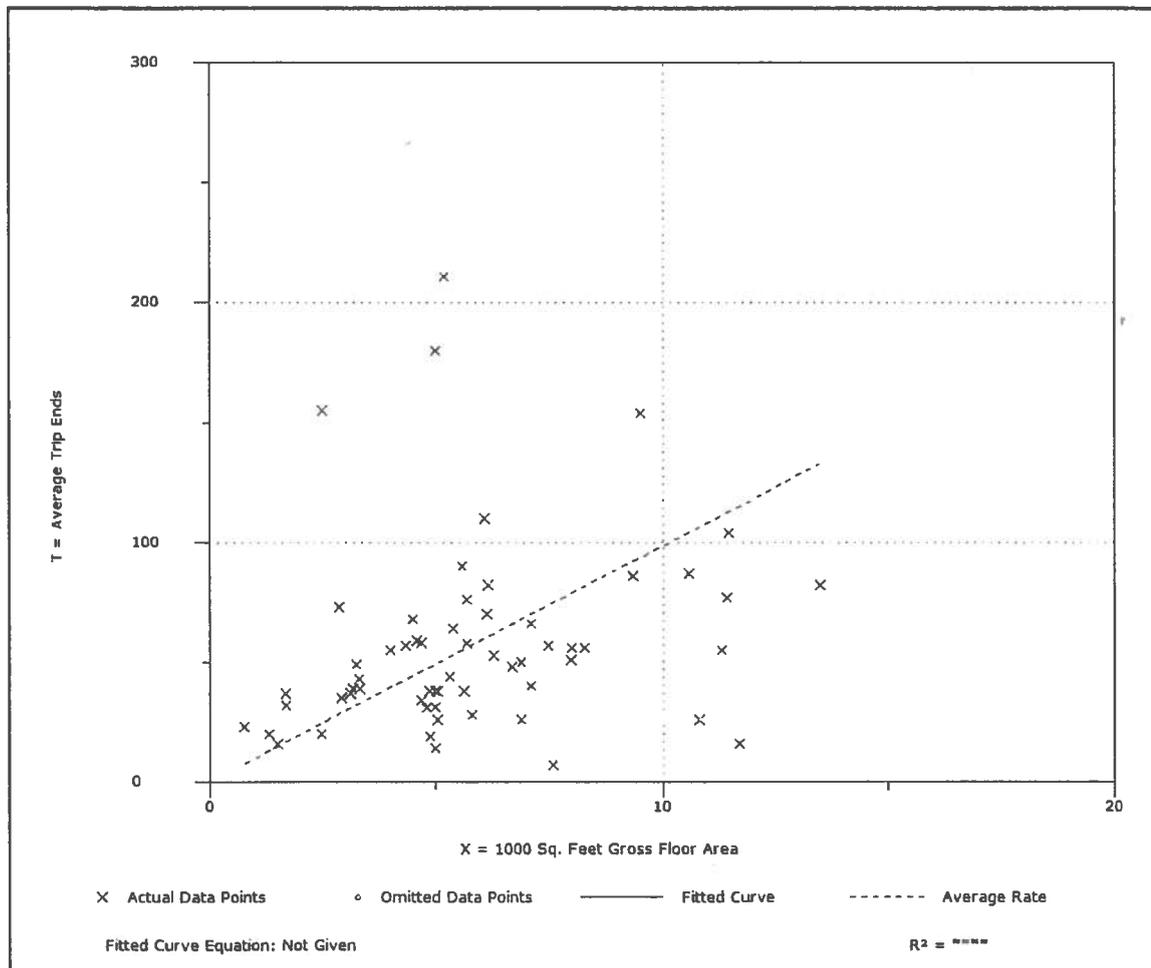
**Average Vehicle Trip Ends vs: 1000 Sq. Feet Gross Floor Area**  
**On a: Weekday,**  
**Peak Hour of Adjacent Street Traffic,**  
**One Hour Between 4 and 6 p.m.**

Number of Studies: 60  
 Average 1000 Sq. Feet GFA: 6  
 Directional Distribution: 60% entering, 40% exiting

### Trip Generation per 1000 Sq. Feet Gross Floor Area

Average Rate	Range of Rates	Standard Deviation
9.85	0.92 - 62.00	8.13

### Data Plot and Equation



Trip Generation, ITE-TGM 9th Edition

## High-Turnover (Sit-Down) Restaurant (932)

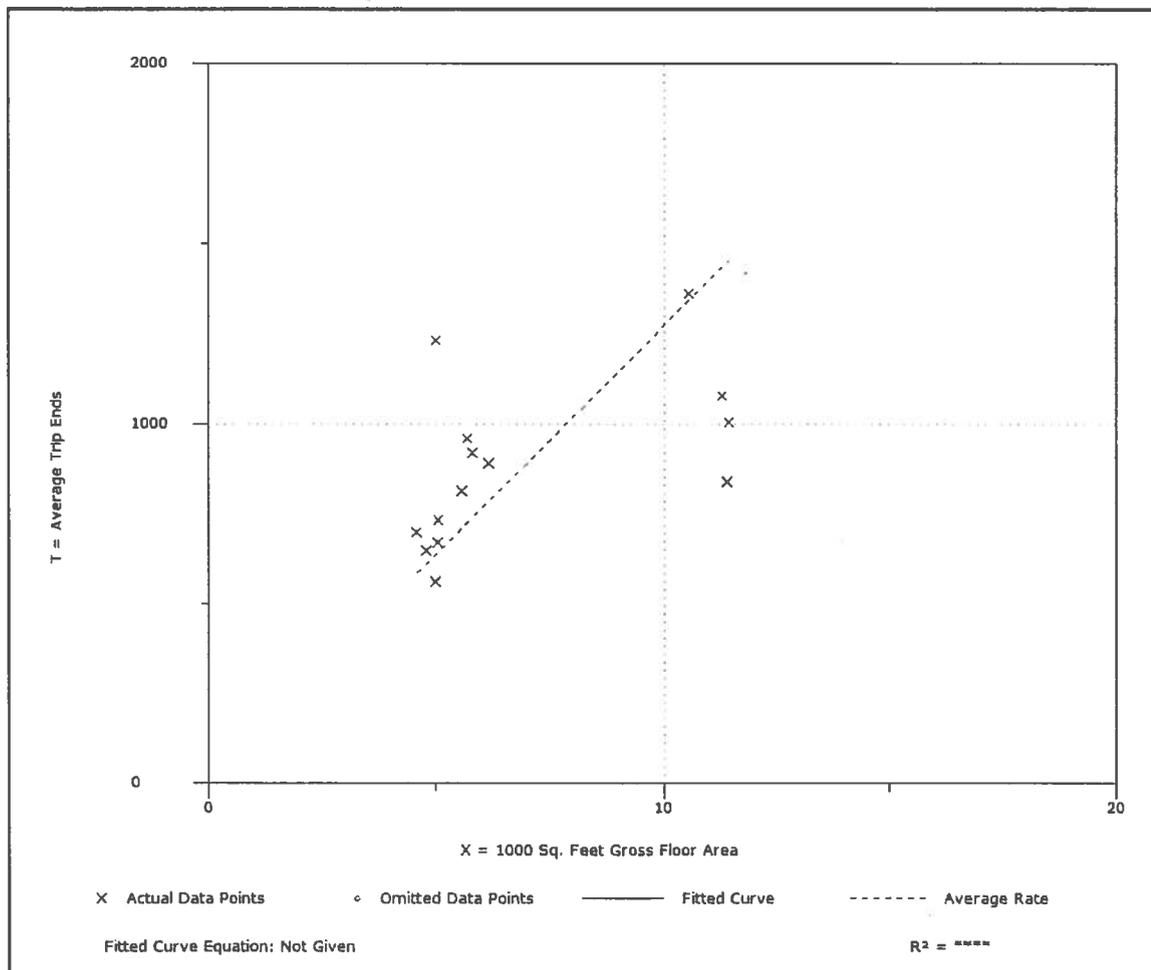
**Average Vehicle Trip Ends vs: 1000 Sq. Feet Gross Floor Area**  
**On a: Weekday**

Number of Studies: 14  
Average 1000 Sq. Feet GFA: 7  
Directional Distribution: 50% entering, 50% exiting

### Trip Generation per 1000 Sq. Feet Gross Floor Area

Average Rate	Range of Rates	Standard Deviation
127.15	73.51 - 246.00	41.76

### Data Plot and Equation



Trip Generation: ITE-TGM 9th Edition

**APPENDIX B**  
**ITE TRIP GENERATION HANDBOOK**  
**MIXED-USE DEVELOPMENT TRIP CAPTURE RATES**

**Table 6.1 Unconstrained Internal Person Trip Capture Rates  
for Trip Origins within a Mixed-Use Development**

		WEEKDAY	
		AM Peak Hour	PM Peak Hour
From OFFICE	To Retail	28%	20%
	To Restaurant	63%	4%
	To Cinema/Entertainment	0%	0%
	To Residential	1%	2%
	To Hotel	0%	0%
From RETAIL	To Office	29%	2%
	To Restaurant	13%	29%
	To Cinema/Entertainment	0%	4%
	To Residential	14%	26%
	To Hotel	0%	5%
From RESTAURANT	To Office	31%	3%
	To Retail	14%	41%
	To Cinema/Entertainment	0%	8%
	To Residential	4%	18%
	To Hotel	3%	7%
From CINEMA/ENTERTAINMENT	To Office	0%	2%
	To Retail	0%	21%
	To Restaurant	0%	31%
	To Residential	0%	8%
	To Hotel	0%	2%
From RESIDENTIAL	To Office	2%	4%
	To Retail	1%	42%
	To Restaurant	20%	21%
	To Cinema/Entertainment	0%	0%
	To Hotel	0%	3%
From HOTEL	To Office	75%	0%
	To Retail	14%	16%
	To Restaurant	9%	68%
	To Cinema/Entertainment	0%	0%
	To Residential	0%	2%

Source: Bochner, B., K. Hooper, B. Sperry, and R. Dunphy. NCHRP Report 684: *Enhancing Internal Trip Capture Estimation for Mixed-Use Developments*. Washington, DC: Transportation Research Board, Tables 99 and 100, 2011.

**Table 6.2 Unconstrained Internal Person Trip Capture Rates for Trip Destinations within a Mixed-Use Development**

		Weekday	
		AM Peak Hour	PM Peak Hour
To OFFICE	From Retail	4%	31%
	From Restaurant	14%	30%
	From Cinema/Entertainment	0%	6%
	From Residential	3%	57%
	From Hotel	3%	0%
To RETAIL	From Office	32%	8%
	From Restaurant	8%	50%
	From Cinema/Entertainment	0%	4%
	From Residential	17%	10%
	From Hotel	4%	2%
To RESTAURANT	From Office	23%	2%
	From Retail	50%	29%
	From Cinema/Entertainment	0%	3%
	From Residential	20%	14%
	From Hotel	6%	5%
To CINEMA/ENTERTAINMENT	From Office	0%	1%
	From Retail	0%	26%
	From Restaurant	0%	32%
	From Residential	0%	0%
	From Hotel	0%	0%
To RESIDENTIAL	From Office	0%	4%
	From Retail	2%	46%
	From Restaurant	5%	16%
	From Cinema/Entertainment	0%	4%
	From Hotel	0%	0%
To HOTEL	From Office	0%	0%
	From Retail	0%	17%
	From Restaurant	4%	71%
	From Cinema/Entertainment	0%	1%
	From Residential	0%	12%

Source: Bochner, B., K. Hooper, B. Sperry, and R. Dunphy. NCHRP Report 684: *Enhancing Internal Trip Capture Estimation for Mixed-Use Developments*. Washington, DC: Transportation Research Board, Tables 101 and 102, 2011.

**APPENDIX C**  
**TRAFFICWARE TRIP GENERATION**

### Trip Generation Summary - Pre-Demolition Development

Project: FMB Times Square Resort  
 Alternative: Alternative 1

Open Date: 10/5/2016  
 Analysis Date: 10/5/2016

ITE	Land Use	Average Daily Trips			AM Peak Hour of Adjacent Street Traffic			PM Peak Hour of Adjacent Street Traffic		
		Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total
820	Bayside Retail 24.2 Gross Leasable Area 1000 SF	1350	1350	2700	41	25	66	111	121	232
826	Bayside Specialty Retail 22.45 Gross Leasable Area 1000 SF	499	499	998	8	8	16	33	42	75
330	Beachside Resort Hotel 66 Occupied Rooms	206	206	412	22	9	31	14	18	32
826	Beachside Specialty Retail 8.3 Gross Leasable Area 1000 SF	197	196	393	3	3	6	18	23	41
Unadjusted Volume		2252	2251	4503	74	45	119	176	204	380
Internal Capture Trips		0	0	0	1	1	2	5	5	10
Pass-By Trips		0	0	0	0	0	0	37	41	78
Volume Added to Adjacent Streets		2252	2251	4503	73	44	117	134	158	292

Total AM Peak Hour Internal Capture = 2 Percent

Total PM Peak Hour Internal Capture = 3 Percent

### Trip Generation Summary - Build Per Code Development

Project: FMB Times Square Resort  
 Alternative: Alternative 1

Open Date: 10/5/2016  
 Analysis Date: 10/5/2016

ITE	Land Use	Average Daily Trips			AM Peak Hour of Adjacent Street Traffic			PM Peak Hour of Adjacent Street Traffic		
		Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total
330	Bayside Resort Hotel 48 Occupied Rooms	150	150	300	17	7	24	10	14	24
820	Bayside Retail 156.7 Gross Leasable Area 1000 SF	4547	4547	9094	127	78	205	389	421	810
330	Beachside Resort Hotel 70 Occupied Rooms	219	218	437	23	9	32	15	19	34
826	Beachside Specialty Retail 67.16 Gross Leasable Area 1000 SF	1456	1455	2911	23	24	47	81	102	183
Unadjusted Volume		6372	6370	12742	190	118	308	495	556	1051
Internal Capture Trips		0	0	0	2	2	4	9	9	18
Pass-By Trips		0	0	0	0	0	0	131	142	273
Volume Added to Adjacent Streets		6372	6370	12742	188	116	304	355	405	760

Total AM Peak Hour Internal Capture = 1 Percent

Total PM Peak Hour Internal Capture = 2 Percent

### Trip Generation Summary - Proposed Development

Project: FMB Times Square Resort  
 Alternative: Alternative 1

Open Date: 10/5/2016  
 Analysis Date: 10/5/2016

ITE	Land Use	Average Daily Trips			AM Peak Hour of Adjacent Street Traffic			PM Peak Hour of Adjacent Street Traffic		
		Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total
330	Bayside Resort Hotel 290 Occupied Rooms	905	905	1810	78	31	109	61	81	142
932	Beachside Restaurant 19.75 Gross Floor Area 1000 SF	1256	1255	2511	117	96	213	117	78	195
925	Beachside Bar 1.96 Gross Floor Area 1000 SF	111	111	222	0	0	0	15	7	22
826	Bayside Specialty Retail 1.8 Gross Leasable Area 1000 SF	40	40	80	0	1	1	2	3	5
Unadjusted Volume		2312	2311	4623	195	128	323	195	169	364
Internal Capture Trips		0	0	0	6	6	12	15	15	30
Pass-By Trips		0	0	0	0	0	0	47	31	78
Volume Added to Adjacent Streets		2312	2311	4623	189	122	311	133	123	256

Total AM Peak Hour Internal Capture = 4 Percent

Total PM Peak Hour Internal Capture = 8 Percent

**APPENDIX D**

**LEE COUNTY LINK-SPECIFIC SERVICE VOLUMES &  
TRAFFIC COUNT REPORT 2015 EXCERPTS**

LINK-SPECIFIC SERVICE VOLUMES ON ARTERIALS IN LEE COUNTY (2015 DATA)

ROAD SEGMENT	FROM	TO	TRAFFIC DISTRICT	LENGTH (MILE)	ROAD TYPE	SERVICE VOLUMES (PEAK HOUR PEAK DIRECTION)					SERVICE VOLUMES (PEAK HOUR--BOTH DIRECTIONS)				
						A	B	C	D	E	A	B	C	D	E
COLONIAL BLVD	SIX MILE PKWY	I-75	1	0.5	6LD	0	2,630	3,100	3,100	3,100	0	4,390	5,180	5,180	5,180
	I-75	SR 82	1	2.4	6LD	0	2,280	3,040	3,040	3,040	0	3,800	5,070	5,070	5,070
CORKSCREW RD	US 41	SANDY LN	4	0.5	4LD	0	390	1,900	1,900	1,900	0	760	3,670	3,670	3,670
	SANDY LN	THREE OAKS PKWY	4	0.7	4LD	0	390	1,900	1,900	1,900	0	760	3,670	3,670	3,670
	THREE OAKS PKWY	I-75	4	0.8	4LD	0	390	1,900	1,900	1,900	0	760	3,670	3,670	3,670
	I-75	BEN HILL GRIFFIN PKWY	3	0.5	4LD	0	390	1,900	1,900	1,900	0	760	3,670	3,670	3,670
CYPRESS LAKE DR	BEN HILL GRIFFIN PKWY	WILDCAT RUN DR	3	1.7	2LD	0	820	1,200	1,200	1,200	0	1,580	2,310	2,310	2,310
	WILDCAT RUN DR	ALICO RD	3	2.6	2LN	90	310	570	790	1,140	180	600	1,100	1,520	2,200
	ALICO RD	COUNTY LINE	3	10.4	2LN	90	310	570	790	1,140	180	600	1,100	1,520	2,200
	McGREGOR BLVD	SOUTH POINT BLVD	4	0.4	4LD	0	0	890	1,880	1,940	0	0	1,590	3,360	3,480
DANIELS PKWY	SOUTH POINT BLVD	WINKLER RD	4	0.6	4LD	0	0	890	1,880	1,940	0	0	1,590	3,360	3,480
	WINKLER RD	SUMMERLIN RD	4	0.7	4LD	0	0	890	1,880	1,940	0	0	1,590	3,360	3,480
	SUMMERLIN RD	US 41	4	0.9	6LD	0	0	1,360	2,890	2,940	0	0	2,430	5,170	5,240
	US 41	BIG PINE WAY	4	0.5	6LD	0	0	590	2,480	2,680	0	0	1,100	4,600	4,980
DEL PRADO BLVD	BIG PINE WAY	METRO PKWY	4	0.6	6LD	0	0	590	2,480	2,680	0	0	1,100	4,600	4,980
	METRO PKWY	SIX MILE PKWY	4	0.8	6LD	0	0	590	2,480	2,680	0	0	1,100	4,600	4,980
	SIX MILE PKWY	PALOMINO DR	4	2.2	6LD	210	2,830	3,040	3,040	3,040	390	5,250	5,650	5,650	
	PALOMINO DR	I-75	4	0.6	6LD	210	2,830	3,040	3,040	3,040	390	5,250	5,650	5,650	
	I-75	TREELINE AVE	3	0.5	6LD	2,510	3,260	3,260	3,260	3,260	4,190	5,420	5,420	5,420	
	TREELINE AVE	CHAMBERLIN PKWY	3	0.8	6LD	2,510	3,260	3,260	3,260	3,260	4,190	5,420	5,420	5,420	
	CHAMBERLIN PKWY	SR 82	3	3.8	4LD	1,620	2,160	2,160	2,160	2,160	2,700	3,600	3,600	3,600	
	SR 82	CAPE CORAL PKWY	5	0.3	6LD	0	0	1,660	2,660	2,660	0	0	3,140	5,000	5,000
ESTERO BLVD	CAPE CORAL PKWY	SE 46TH ST	5	0.7	6LD	0	0	1,660	2,660	2,660	0	0	3,140	5,000	5,000
	SE 46TH ST	CORNADO PKWY	5	1.3	6LD	0	0	1,660	2,660	2,660	0	0	3,140	5,000	5,000
	CORNADO PKWY	CORNWALLIS PKWY	5	0.8	6LD	0	0	1,660	2,660	2,660	0	0	3,140	5,000	5,000
	CORNWALLIS PKWY	VETERANS PKWY	5	3.0	6LD	0	0	1,640	2,800	2,800	0	0	3,160	5,390	5,390
	VETERANS PKWY	HANCOCK B. PKWY	5	0.7	6LD	0	0	2,770	2,800	2,800	0	0	5,330	5,370	5,370
	HANCOCK B. PKWY	NE 6TH ST	5	0.4	6LD	0	0	2,770	2,800	2,800	0	0	5,330	5,370	5,370
	NE 6TH ST	SR 78	4	2.9	2LN	571	616	644	685	726	1,120	1,208	1,264	1,344	
	SR 78	HICKORY BLVD	4	1.2	2LN	571	616	644	685	726	1,120	1,208	1,264	1,344	
ESTERO PKWY	HICKORY BLVD	AVENIDA PESCADORA	4	1.8	2LD	500	568	593	632	671	980	1,113	1,162	1,239	
	AVENIDA PESCADORA	MID ISLAND DR	4	2.6	4LD	0	2,000	2,000	2,000	2,000	0	3,850	3,850	3,850	
	MID ISLAND DR	SAN CARLOS BLVD	4	1.0	6LD	0	0	0	2,040	2,300	0	0	3,710	4,180	
	SAN CARLOS BLVD	BEN HILL GRIFFIN PKWY	1	0.3	6LD	0	0	0	2,040	2,300	0	0	3,710	4,180	
GLADIOLUS DR	BEN HILL GRIFFIN PKWY	N AIRPORT RD	4	0.5	4LD	0	190	1,840	1,840	1,840	0	360	3,430	3,430	
	N AIRPORT RD	COLONIAL BLVD	4	1.6	4LD	0	190	1,840	1,840	1,840	0	360	3,430	3,430	
	COLONIAL BLVD	PINE RIDGE RD	4	0.8	6LD	0	290	2,780	2,780	2,780	0	540	5,160	5,160	
	PINE RIDGE RD	BASS RD	4	0.5	6LD	0	2,060	2,780	2,780	2,780	0	3,890	5,240	5,240	
FOWLER ST	BASS RD	WINKLER RD	4	1.5	6LD	0	2,060	2,780	2,780	2,780	0	3,890	5,240	5,240	
	WINKLER RD	SUMMERLIN RD	4	0.5	6LD	0	2,060	2,780	2,780	2,780	0	3,890	5,240	5,240	



## *TRAFFIC COUNT REPORT*

# 2015



PREPARED BY:  
LEE COUNTY DEPARTMENT OF TRANSPORTATION  
1500 MONROE STREET  
FORT MYERS, FLORIDA 33901

February 2015

E 21ST ST	E OF JOEL BLVD	475	600	800	500	500	500	22	5		
EAST TERRY ST	E OF OLD 41	271	U/C	10000	13000	11900		42	6		
EDGEWOOD AVE	W OF SHOEMAKER BLVD	632	2000	1500	1500	1100		11	3		
EDISON AVE	W OF ROCKFILL RD	604	5100	3400	3800	2800		20	3		
EDISON AVE	W OF HIGHLAND AVE										
EDISON AVE	E OF FOWLER ST	512				5700		20	3		
EDISON AVE	0 W OF FOWLER ST	603	8600	5600	6700	5700		20	3		
EDISON AVE	E OF US 41	602	5500	4300	5600	4700		29	3		
ESTERO BLVD	@ BIG CARLOS PASS BR.	274	9200	8100	6200	6500	9100	9600	7		
ESTERO BLVD	N OF AVE. PESCADORA	272	14700	13900	12300	12000	12600		7		
ESTERO BLVD	N OF DENORA ST								44		
ESTERO BLVD	N OF DENORA ST	44	15300	14900	14200	13700	13500	13700	13500	12700	
ESTERO BLVD	N OF VIRGINIA AVE	520	16400	18500	16600	15600	14500		7		
ESTERO PKWY	W OF BEN HILL GRIFFIN PKWY	459			9100	9400	11800	15700	15	6	
ESTERO PKWY	E OF US 41	465	7000	6700	6600	8300	9000	8200	11500	15	6
EVANS AVE	N OF HANSON ST	625	6800	3400		4000			29	3	
EVANS AVE	S OF HANSON ST	626	9800	8200	6800	6600			29	3	
EVANS AVE	N OF COLONIAL BLVD	627	7600	6700	5000	4600			29	3	
EVERGREEN RD	W OF BUS 41	499	1800	1400	1200	1400			41	2	
FIDDLESTICKS BLVD	S OF DANIELS PKWY	276	8000	8100	6800	8000	6900	7200	31	4	
FIRST ST	E OF ALTAMONT AVE	630	4400	3100	4500	3400			29	3	
FIRST ST	E OF EVANS AVE	631	16300	U/C	U/C	8200			29	3	
FORD ST	S OF M.L.K. BLVD (SR 82)	611	12000	7800	5400	5200			29	3	
FORD ST	S OF EDISON AVE	612	12700	8300	6400	5400			29	3	
FORD ST	N OF COLONIAL BLVD	613	2900	1800	2500	2300			29	3	

# PCS 44 - Estero Blvd north of Donora Blvd

2015 AADT = 12,700 VPD

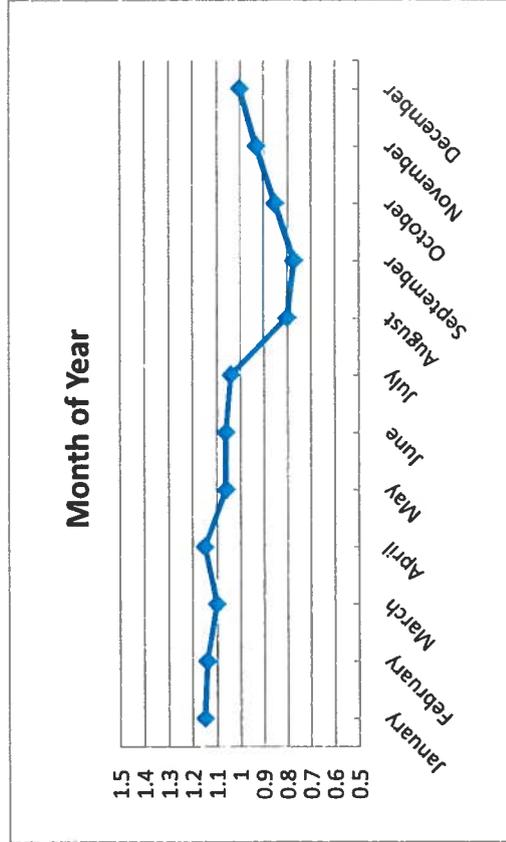
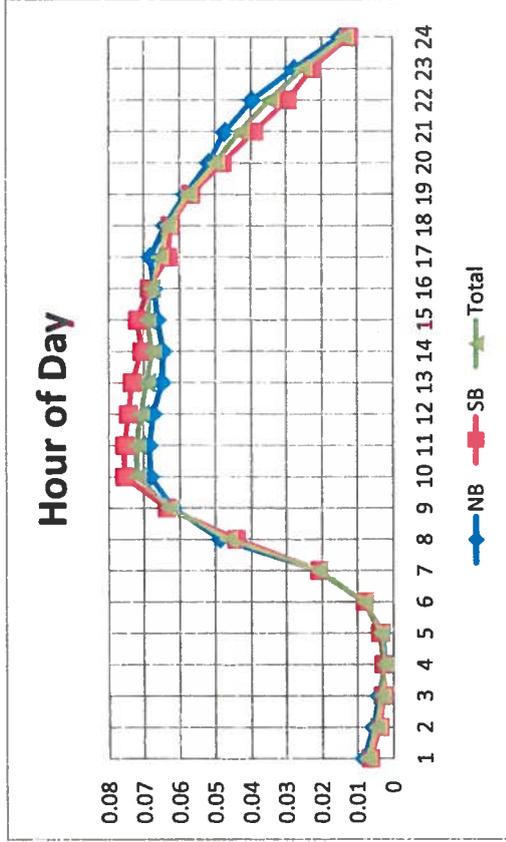
Hour	NB	SB	Total
0	0.83%	0.66%	0.74%
1	0.56%	0.40%	0.48%
2	0.41%	0.30%	0.35%
3	0.24%	0.28%	0.26%
4	0.30%	0.38%	0.34%
5	0.82%	0.80%	0.81%
6	2.11%	2.09%	2.10%
7	4.86%	4.42%	4.64%
8	6.19%	6.37%	6.28%
9	6.81%	7.54%	7.18%
10	6.84%	7.54%	7.19%
11	6.73%	7.43%	7.08%
12	6.48%	7.33%	6.91%
13	6.44%	7.06%	6.75%
14	6.60%	7.18%	6.89%
15	6.69%	6.85%	6.77%
16	6.81%	6.31%	6.56%
17	6.39%	6.26%	6.32%
18	5.82%	5.68%	5.75%
19	5.17%	4.78%	4.98%
20	4.70%	3.90%	4.30%
21	3.95%	2.96%	3.45%
22	2.76%	2.27%	2.52%
23	1.48%	1.23%	1.35%

Month of Year	Fraction
January	1.15
February	1.14
March	1.1
April	1.15
May	1.06
June	1.06
July	1.04
August	0.8
September	0.77
October	0.85
November	0.93
December	1

Day of Week	Fraction
Sunday	0.93
Monday	0.97
Tuesday	0.99
Wednesday	1
Thursday	1.01
Friday	1.05
Saturday	1.04

Directional Factor	
AM	0.52 NB
PM	0.52 NB

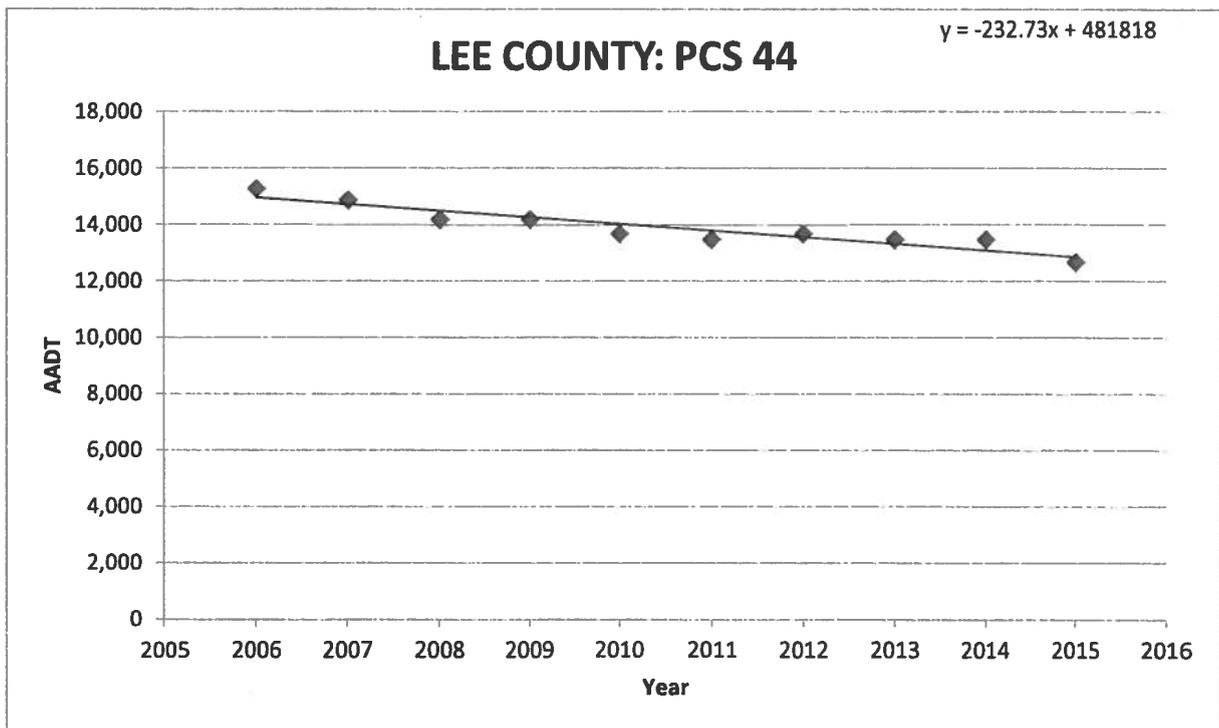
Design Hour Volume	
#	Volume
5	1298
10	1285
20	1258
30	1241
50	1214
100	1168
150	1139
200	1115



**APPENDIX E**  
**HISTORICAL AADT GROWTH TREND ANALYSIS**

**LEE COUNTY: PCS 44**  
**ESTERO BLVD NORTH OF DONORA BLVD**

Year	AADT <sup>(1)</sup>	Equation	Growth
2006	15,300	$y_1 = 14,967x_1$	-1.55% per year
2007	14,900	2006	
2008	14,200		
2009	14,200	$y_2 = 12,873x_2$	
2010	13,700	2015	
2011	13,500		
2012	13,700		
2013	13,500		
2014	13,500		
2015	12,700		



**Footnotes:**

(1) Lee County Traffic Count Report 2015

**APPENDIX F**  
**INTERSECTION TURNING MOVEMENT COUNTS**

**TURNING MOVEMENT COUNTS – RAW**

**DAVID PLUMMER & ASSOCIATES  
SUMMARY OF VEHICLE MOVEMENTS**

**TRAFFIC COUNT ADJUSTMENT FACTORS**

File# \_\_\_\_\_  
Job # 16537

Project name: Times Square Resort  
Job number: 16537

Count location: San Carlos Blvd @ Fifth Street @ Estero Blvd  
County: Lee  
City: Fort Myers Beach  
Date: 09/08/2016  
Day of Week: Thursday  
Weather: Good  
Road Condition: Good

Observer: TH/LH  
Remark: Illegal EB Fifth Street Lefts / WB Fifth Street Thrus

Intersection Description:  
From North (SB): San Carlos Blvd  
From South (NB): San Carlos Blvd  
From East (WB) Fifth Street  
From West (EB) Fifth Street

AM Peak Hour: 9:15 AM to 10:15 AM  
PM Peak Hour: 3:30 PM to 4:30 PM

**LEE COUNTY ADJUSTMENT FACTOR**

Traffic count report: 2015  
Permanent count station: 44  
Month of count AADT: 0.77  
AADT to peak season 1.10

$$\text{Factor} = 1.00 \div 0.77 \times 1.10 = 1.43$$

David Plummer & Associates  
Based On  
MSHA Highway Information Services Division  
Turning Counts Study - Field Sheet

Request No.: Times Square Resort  
Job No.: 16537

Location: San Carlos Blvd @ Fifth Street @ Estero  
Date: 09/08/2014 Thursday  
Recorder: TH/LH  
Interval (dd): 15  
(In Minutes)

County: Lee  
Town: Fort Myers Beach  
Weather: Good

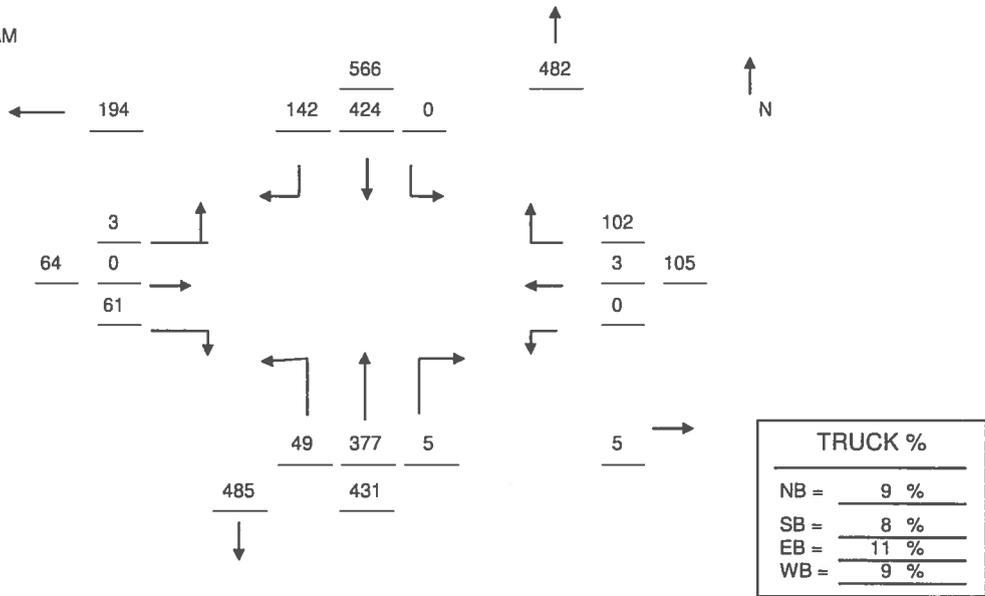
PEAK HOURS	AM PERIOD 6:00AM-12:00PM	Start	End	Volume	PM PERIOD 12:00PM-7:00PM	Start	End	Volume
		9:15 AM	10:15 AM	1166		3:30 PM	4:30 PM	1308

Street Name →	San Carlos Blvd				San Carlos Blvd				Fifth Street				Fifth Street				GRAND TOTAL	
	Southbound				Northbound				Westbound				Eastbound					
	ENDING	L	T	R	TOT	L	T	R	TOT	L	T	R	TOT	L	T	R		TOT
7:15 AM				0				0				0					0	0
7:30 AM				0				0				0					0	0
7:45 AM	0	122	34	156	5	66	0	71	0	0	17	17	0	0	9	9	253	
8:00 AM	0	114	33	147	13	76	0	89	0	0	11	11	0	0	7	7	254	
8:15 AM	0	103	32	135	7	64	1	72	0	0	20	20	0	0	7	7	234	
8:30 AM	0	118	26	144	8	63	1	72	0	0	13	13	0	0	7	7	236	
8:45 AM	0	115	51	166	14	64	0	78	0	0	22	22	0	0	16	16	282	
9:00 AM	0	104	39	143	6	82	0	88	0	0	21	21	0	0	15	15	267	
9:15 AM	0	105	52	157	6	86	0	92	0	0	27	27	0	0	11	11	287	
9:30 AM	0	93	33	126	5	98	3	106	0	0	22	22	1	0	22	23	277	
9:45 AM	0	104	34	138	13	102	0	115	0	2	23	25	1	0	16	17	295	
10:00 AM	0	99	42	141	11	85	0	96	0	0	24	24	0	0	13	13	274	
10:15 AM	0	128	33	161	20	92	2	114	0	1	33	34	1	0	10	11	320	
10:30 AM	0	99	29	128	13	91	0	104	0	0	25	25	0	0	16	16	273	
10:45 AM				0		0		0				0					0	0
11:00 AM				0		0		0				0					0	0
11:15 AM				0		0		0				0					0	0
11:30 AM				0		0		0				0					0	0
11:45 AM				0		0		0				0					0	0
12:00 PM				0		0		0				0					0	0
12:15 PM				0		0		0				0					0	0
12:30 PM				0		0		0				0					0	0
12:45 PM				0		0		0				0					0	0
1:00 PM				0		0		0				0					0	0
1:15 PM				0		0		0				0					0	0
1:30 PM				0		0		0				0					0	0
1:45 PM				0		0		0				0					0	0
2:00 PM				0		0		0				0					0	0
2:15 PM				0		0		0				0					0	0
2:30 PM				0		0		0				0					0	0
2:45 PM				0		0		0				0					0	0
3:00 PM				0		0		0				0					0	0
3:15 PM				0		0		0				0					0	0
3:30 PM				0		0		0				0					0	0
3:45 PM	1	89	36	126	16	120	1	137	0	0	54	54	0	0	24	24	341	
4:00 PM	0	83	31	114	15	119	0	134	0	0	42	42	0	0	13	13	303	
4:15 PM	0	82	28	110	16	134	0	150	0	0	45	45	1	0	26	27	332	
4:30 PM	0	92	32	124	13	130	0	143	0	0	46	46	0	0	19	19	332	
4:45 PM	0	79	24	103	14	112	1	127	1	0	48	49	0	0	17	17	296	
5:00 PM	0	99	33	132	14	113	1	128	0	0	35	35	0	1	13	14	309	
5:15 PM	0	81	29	110	19	102	0	121	0	0	58	58	0	0	20	20	309	
5:30 PM	0	100	34	134	20	125	0	145	0	0	40	40	1	0	22	23	342	
5:45 PM	0	112	25	137	25	103	0	128	0	1	22	23	1	0	21	22	310	
6:00 PM	0	95	41	136	18	112	0	130	0	0	25	25	1	0	14	15	306	
6:15 PM	0	96	39	135	19	99	2	120	0	0	29	29	0	0	25	25	309	
6:30 PM	0	91	28	119	13	81	2	96	0	0	33	33	1	0	20	21	269	
<b>TOTAL</b>	<b>1</b>	<b>2403</b>	<b>818</b>	<b>3222</b>	<b>323</b>	<b>2319</b>	<b>14</b>	<b>2656</b>	<b>1</b>	<b>4</b>	<b>735</b>	<b>740</b>	<b>8</b>	<b>1</b>	<b>383</b>	<b>392</b>	<b>7010</b>	
AM Peak Vol	0	424	142	566	49	377	5	431	0	3	102	105	3	0	61	64	1166	
PM Peak Vol	1	346	127	474	60	503	1	564	0	0	187	187	1	0	82	83	1308	
<b>Peak Hour Factor (PHF)</b>																		
AM Peak Hour		0.88				0.94				0.77				0.70			0.91	
PM Peak Hour		0.94				0.94				0.87				0.77			0.96	

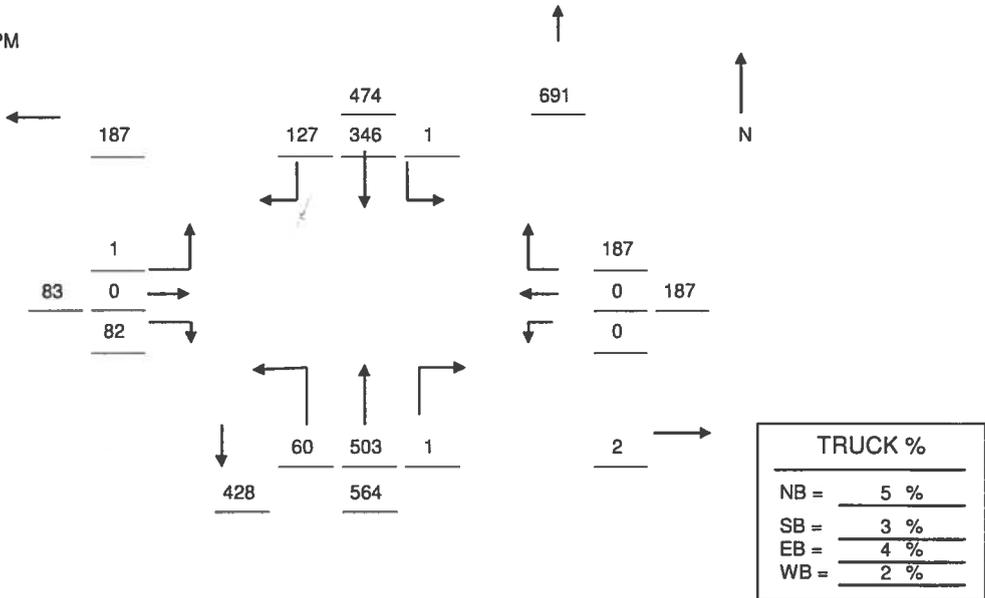
## DPA RAW TURNING MOVEMENT DIAGRAM

LOCATION:	San Carlos Blvd @ Fifth Street @ Estero Blvd	CITY: Fort Myers Beach
COUNTY :	Lee	DATE: 09/08/2016
OBSERVER:	TH/LH	Thursday

AM Peak Hour  
9:15 AM 10:15 AM



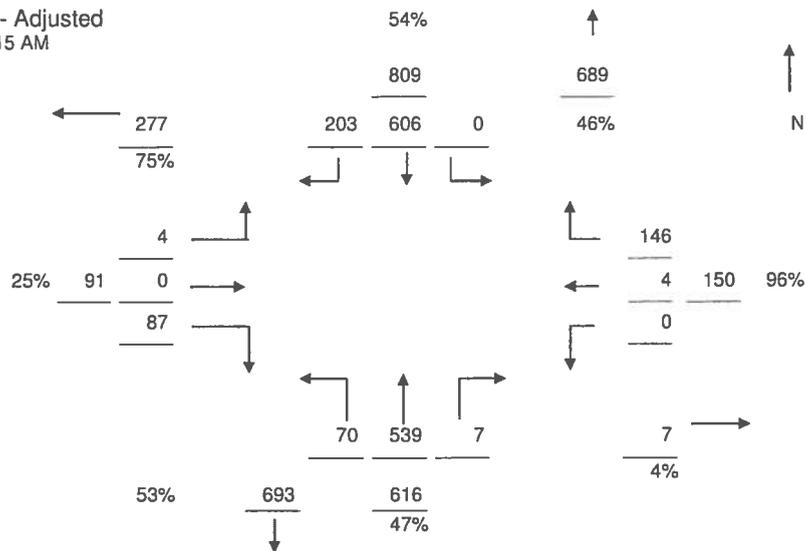
PM Peak Hour  
3:30 PM 4:30 PM



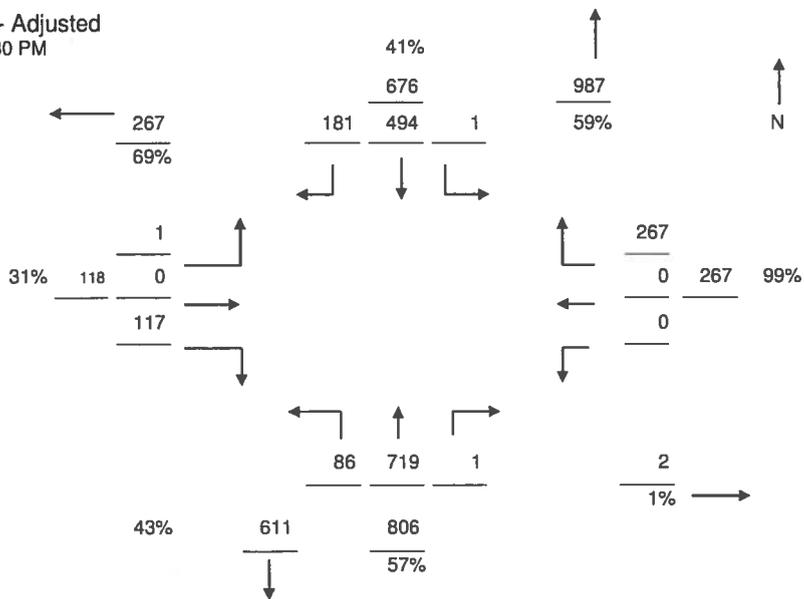
## DPA ADJUSTED TURNING MOVEMENT DIAGRAM

LOCATION:	San Carlos Blvd @ Fifth Street @ Estero Blvd	REPORT:	2015
COUNTY :	Lee	STATION:	44
OBSERVER:	TH/LH	MONTHLY:	0.77
		ANNUAL:	1.10
		ADJUSTMENT FACTOR:	1.43

AM Peak Hour - Adjusted  
9:15 AM 10:15 AM



PM Peak Hour - Adjusted  
3:30 PM 4:30 PM



**DAVID PLUMMER & ASSOCIATES  
SUMMARY OF VEHICLE MOVEMENTS**

**TRAFFIC COUNT ADJUSTMENT FACTORS**

File# \_\_\_\_\_

Job # 16537

Project name: Times Square Resort  
Job number: 16537

Count location: Estero Blvd @ Crescent Street  
County: Lee  
City: Fort Myers Beach  
Date: 09/08/2016  
Day of Week: Thursday  
Weather: Good  
Road Condition: Good

Observer: DC/RC  
Remark: None

Intersection Description:  
From North (SB): Crescent Street  
From South (NB): Motel Parking Lot  
From East (WB): Estero Blvd  
From West (EB): Estero Blvd

AM Peak Hour: 9:30 AM to 10:30 AM  
PM Peak Hour: 5:15 PM to 6:15 PM

**LEE COUNTY ADJUSTMENT FACTOR**

Traffic count report: 2015  
Permanent count station: 44  
Month of count AADT: 0.77  
AADT to peak season 1.10

$$\text{Factor} = 1.00 \div 0.77 \times 1.10 = 1.43$$

David Plummer & Associates  
Based On  
MSHA Highway Information Services Division  
Turning Counts Study - Field Sheet

Request No.: Times Square Resort  
Job No.: 16537

Location: Estero Blvd @ Crescent Street  
Date: 09/08/2014 Thursday  
Recorder: DC/RC  
Interval (dd): 15 (In Minutes)

County: Lee  
Town: Fort Myers Beach  
Weather: Good

PEAK HOURS	AM PERIOD 6:00AM-12:00PM	Start	End	Volume	PM PERIOD 12:00PM-7:00PM	Start	End	Volume
		9:30 AM	10:30 AM	968		5:15 PM	6:15 PM	1056

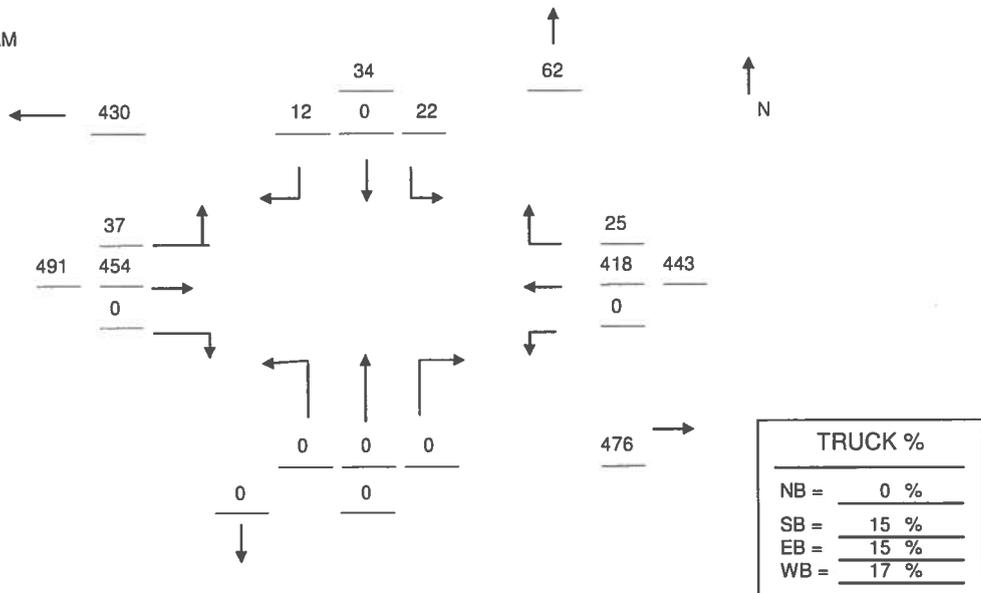
Street Name->	Crescent Street				Motel Parking Lot				Estero Blvd				Estero Blvd				GRAND TOTAL
	Southbound				Northbound				Westbound				Eastbound				
	ENDING	L	T	R	TOT	L	T	R	TOT	L	T	R	TOT	L	T	R	
7:15 AM				0				0				0				0	0
7:30 AM				0				0				0				0	0
7:45 AM	1	0	1	2	0	0	0	0	0	68	2	70	3	133	0	136	208
8:00 AM	1	0	2	3	0	0	0	0	0	106	4	110	2	135	0	137	250
8:15 AM	0	0	0	0	0	0	0	0	0	55	2	57	5	101	0	106	163
8:30 AM	5	0	2	7	0	0	1	1	0	75	1	76	3	135	1	139	223
8:45 AM	6	0	2	8	0	0	0	0	1	91	6	98	8	132	0	140	246
9:00 AM	2	0	2	4	0	0	0	0	0	72	3	75	7	116	0	123	202
9:15 AM	12	0	4	16	0	0	0	0	0	96	9	105	7	144	0	151	272
9:30 AM	4	0	2	6	0	0	0	0	0	102	2	104	6	118	1	125	235
9:45 AM	2	0	2	4	0	0	0	0	0	119	11	130	8	98	0	106	240
10:00 AM	5	0	2	7	0	0	0	0	0	87	2	89	5	113	0	118	214
10:15 AM	5	0	3	8	0	0	0	0	0	110	9	119	17	127	0	144	271
10:30 AM	10	0	5	15	0	0	0	0	0	102	3	105	7	116	0	123	243
10:45 AM				0				0				0				0	0
11:00 AM				0				0				0				0	0
11:15 AM				0				0				0				0	0
11:30 AM				0				0				0				0	0
11:45 AM				0				0				0				0	0
12:00 PM				0				0				0				0	0
12:15 PM				0				0				0				0	0
12:30 PM				0				0				0				0	0
12:45 PM				0				0				0				0	0
1:00 PM				0				0				0				0	0
1:15 PM				0				0				0				0	0
1:30 PM				0				0				0				0	0
1:45 PM				0				0				0				0	0
2:00 PM				0				0				0				0	0
2:15 PM				0				0				0				0	0
2:30 PM				0				0				0				0	0
2:45 PM				0				0				0				0	0
3:00 PM				0				0				0				0	0
3:15 PM				0				0				0				0	0
3:30 PM				0				0				0				0	0
3:45 PM	9	0	5	14	2	0	0	2	0	144	9	153	11	93	1	105	274
4:00 PM	5	0	3	8	0	0	0	0	0	112	5	117	8	94	0	102	227
4:15 PM	12	0	4	16	0	0	0	0	0	151	8	159	15	95	0	110	285
4:30 PM	6	0	3	9	0	0	0	0	0	143	9	152	20	79	0	99	260
4:45 PM	12	0	4	16	1	0	0	1	0	129	12	141	6	78	2	86	244
5:00 PM	9	0	4	13	0	0	0	0	0	112	7	119	12	94	0	106	238
5:15 PM	10	0	3	13	1	0	0	1	0	126	4	130	12	90	0	102	246
5:30 PM	9	0	3	12	0	0	0	0	0	137	3	140	17	89	0	106	258
5:45 PM	9	0	3	12	0	0	0	0	0	123	5	128	7	115	0	122	262
6:00 PM	11	0	5	16	0	0	0	0	0	142	6	148	12	104	0	116	280
6:15 PM	8	0	8	16	2	0	0	2	0	112	7	119	19	100	0	119	256
6:30 PM	6	0	3	9	0	0	0	0	1	82	6	89	14	120	0	134	232
<b>TOTAL</b>	<b>159</b>	<b>0</b>	<b>75</b>	<b>234</b>	<b>6</b>	<b>0</b>	<b>1</b>	<b>7</b>	<b>2</b>	<b>2596</b>	<b>135</b>	<b>2733</b>	<b>231</b>	<b>2619</b>	<b>5</b>	<b>2855</b>	<b>5829</b>
AM Peak Vol	22	0	12	34	0	0	0	0	0	418	25	443	37	454	0	491	968
PM Peak Vol	37	0	19	56	2	0	0	2	0	514	21	535	55	408	0	463	1056
<b>Peak Hour Factor (PHF)</b>																	
AM Peak Hour	0.57				0.00				0.85				0.85				0.89
PM Peak Hour	0.88				0.25				0.90				0.95				0.94

## DPA RAW TURNING MOVEMENT DIAGRAM

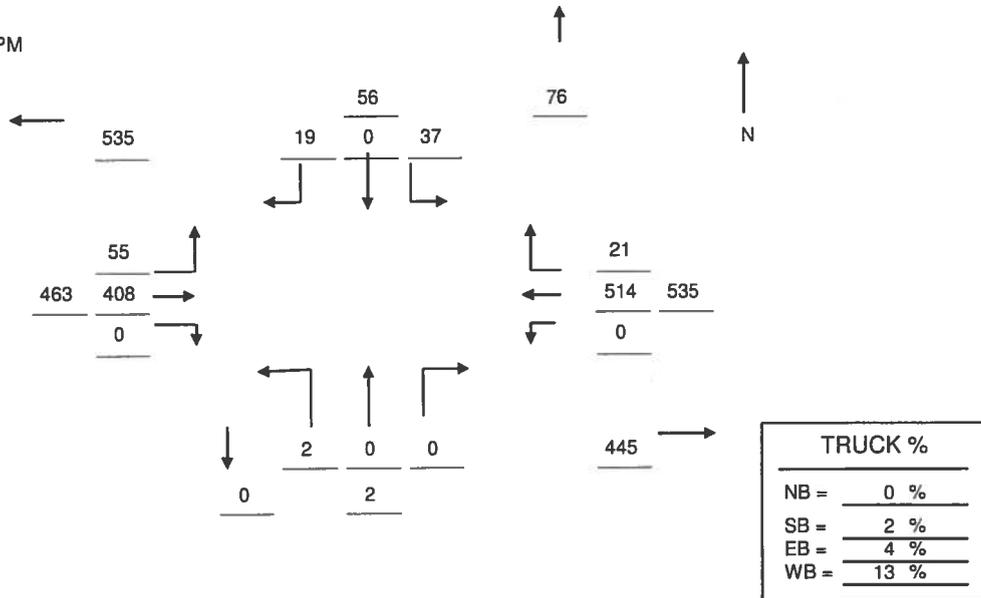
LOCATION: Estero Blvd @ Crescent Street  
 COUNTY : Lee  
 OBSERVER: DC/RC

CITY: Fort Myers Beach  
 DATE: 09/08/2016 Thursday

AM Peak Hour  
 9:30 AM 10:30 AM



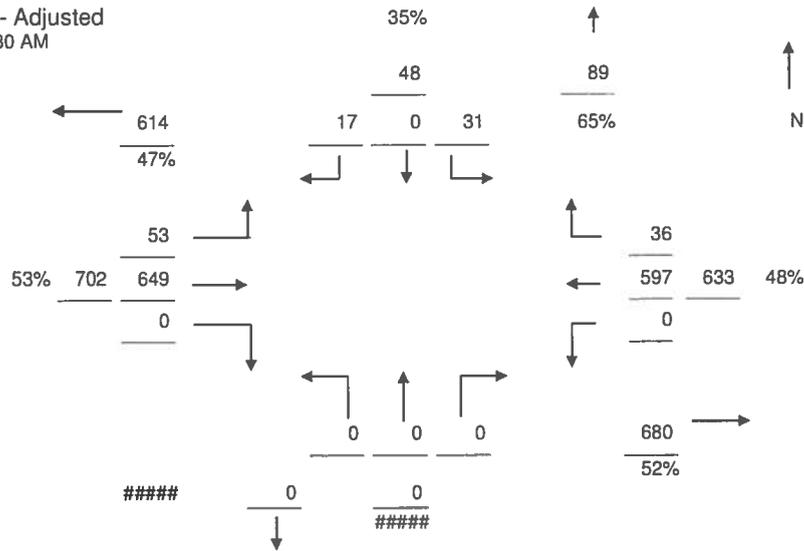
PM Peak Hour  
 5:15 PM 6:15 PM



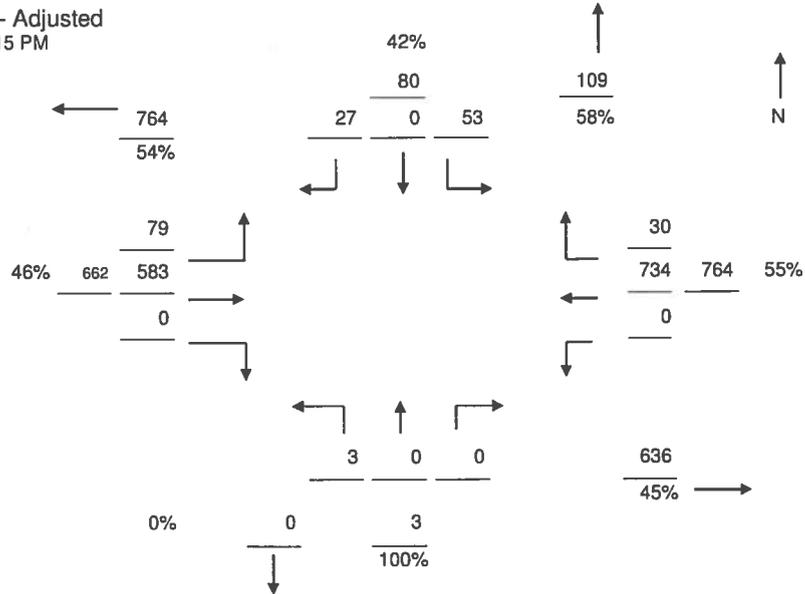
## DPA ADJUSTED TURNING MOVEMENT DIAGRAM

LOCATION:	Estero Blvd @ Crescent Street	REPORT:	2015
COUNTY :	Lee	STATION:	44
OBSERVER:	DC/RC	MONTHLY:	0.77
		ANNUAL:	1.10
		ADJUSTMENT FACTOR:	1.43

AM Peak Hour - Adjusted  
9:30 AM 10:30 AM



PM Peak Hour - Adjusted  
5:15 PM 6:15 PM



**DAVID PLUMMER & ASSOCIATES  
SUMMARY OF VEHICLE MOVEMENTS**

**TRAFFIC COUNT ADJUSTMENT FACTORS**

File# \_\_\_\_\_  
Job # 16537

Project name: Times Square Resort  
Job number: 16537

Count location: Fifth Street @ Crescent Street  
County: Lee  
City: Fort Myers Beach  
Date: 09/08/2016  
Day of Week: Thursday  
Weather: Good  
Road Condition: Good

Observer: PW  
Remark: None

Intersection Description:  
From North (SB): Crescent Street  
From South (NB): Crescent Street  
From East (WB): None  
From West (EB): Fifth Street

AM Peak Hour: 9:30 AM to 10:30 AM  
PM Peak Hour: 4:30 PM to 5:30 PM

**LEE COUNTY ADJUSTMENT FACTOR**

Traffic count report: 2015  
Permanent count station: 44  
Month of count AADT: 0.77  
AADT to peak season: 1.10

$$\text{Factor} = 1.00 \div 0.77 \times 1.10 = 1.43$$

David Plummer & Associates  
Based On  
MSHA Highway Information Services Division  
Turning Counts Study - Field Sheet

Request No.: Times Square Resort  
Job No.: 16537

Location: Fifth Street @ Crescent Street  
Date: 09/08/2011 Thursday  
Recorder: PW  
Interval (dd) : 15 (In Minutes)

County: Lee  
Town: Fort Myers Beach  
Weather: Good

PEAK HOURS	AM PERIOD 6:00AM-12:00PM	Start			End			Volume	PM PERIOD 12:00PM-7:00PM	Start			End			Volume
		9:30 AM	10:30 AM	163	12:00 PM	1:00 PM	263			4:30 PM	5:30 PM	263				

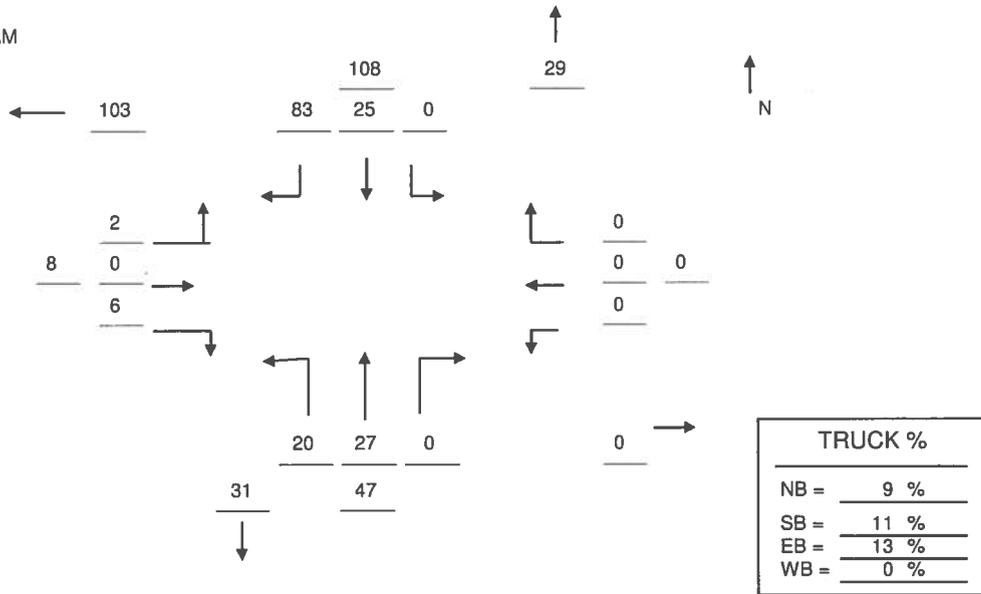
Street Name→	Crescent Street				Crescent Street				None				Fifth Street				GRAND TOTAL
	Southbound				Northbound				Westbound				Eastbound				
	ENDING	L	T	R	TOT	L	T	R	TOT	L	T	R	TOT	L	T	R	
7:15 AM				0				0				0				0	0
7:30 AM				0				0				0				0	0
7:45 AM	0	0	10	10	3	2	0	5	0	0	0	0	0	0	0	0	15
8:00 AM	0	2	11	13	3	2	0	5	0	0	0	0	0	0	0	0	18
8:15 AM	0	0	17	17	0	6	0	6	0	0	0	0	1	0	0	1	24
8:30 AM	0	3	11	14	3	1	0	4	0	0	0	0	0	0	4	4	22
8:45 AM	1	1	14	16	6	3	0	9	0	0	0	0	0	0	3	3	28
9:00 AM	0	5	14	19	10	6	0	16	0	0	0	0	0	0	1	1	36
9:15 AM	0	8	19	27	8	6	0	14	0	0	0	0	0	0	4	4	45
9:30 AM	0	5	18	23	5	5	0	10	0	0	0	0	1	0	3	4	37
9:45 AM	0	2	19	21	6	10	0	16	0	0	0	0	0	0	0	0	37
10:00 AM	0	7	18	25	2	3	0	5	0	0	0	0	0	0	0	0	30
10:15 AM	0	7	25	32	7	12	0	19	0	0	0	0	2	0	4	6	57
10:30 AM	0	9	21	30	5	2	0	7	0	0	0	0	0	0	2	2	39
10:45 AM				0				0				0				0	0
11:00 AM				0				0				0				0	0
11:15 AM				0				0				0				0	0
11:30 AM				0				0				0				0	0
11:45 AM				0				0				0				0	0
12:00 PM				0				0				0				0	0
12:15 PM				0				0				0				0	0
12:30 PM				0				0				0				0	0
12:45 PM				0				0				0				0	0
1:00 PM				0				0				0				0	0
1:15 PM				0				0				0				0	0
1:30 PM				0				0				0				0	0
1:45 PM				0				0				0				0	0
2:00 PM				0				0				0				0	0
2:15 PM				0				0				0				0	0
2:30 PM				0				0				0				0	0
2:45 PM				0				0				0				0	0
3:00 PM				0				0				0				0	0
3:15 PM				0				0				0				0	0
3:30 PM				0				0				0				0	0
3:45 PM	0	6	38	44	12	9	0	21	0	0	0	0	1	0	1	2	67
4:00 PM	0	10	33	43	8	9	0	17	0	0	0	0	0	0	0	0	60
4:15 PM	0	8	33	41	12	10	0	22	0	0	0	0	0	0	2	2	65
4:30 PM	0	4	32	36	9	10	0	19	0	0	0	0	0	0	2	2	57
4:45 PM	0	11	37	48	14	10	0	24	0	0	0	0	1	0	3	4	76
5:00 PM	0	6	24	30	13	6	0	19	0	0	0	0	0	0	2	2	51
5:15 PM	0	7	50	57	7	7	0	14	0	0	0	0	2	0	2	4	75
5:30 PM	0	11	29	40	12	7	0	19	0	0	0	0	1	0	1	2	61
5:45 PM	0	9	14	23	5	7	0	12	0	0	0	0	0	0	2	2	37
6:00 PM	0	9	20	29	15	13	0	28	0	0	0	0	1	0	1	2	59
6:15 PM	0	12	16	28	18	5	0	23	0	0	0	0	3	0	2	5	56
6:30 PM	0	6	25	31	9	10	0	19	0	0	0	0	1	0	1	2	52
<b>TOTAL</b>	<b>1</b>	<b>148</b>	<b>548</b>	<b>697</b>	<b>192</b>	<b>161</b>	<b>0</b>	<b>353</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>14</b>	<b>0</b>	<b>40</b>	<b>54</b>	<b>1104</b>
AM Peak Vol	0	25	83	108	20	27	0	47	0	0	0	0	2	0	6	8	163
PM Peak Vol	0	35	140	175	46	30	0	76	0	0	0	0	4	0	8	12	263
<b>Peak Hour Factor (PHF)</b>																	
AM Peak Hour	0.84				0.62				0.00				0.33				0.71
PM Peak Hour	0.77				0.79				0.00				0.75				0.87

## DPA RAW TURNING MOVEMENT DIAGRAM

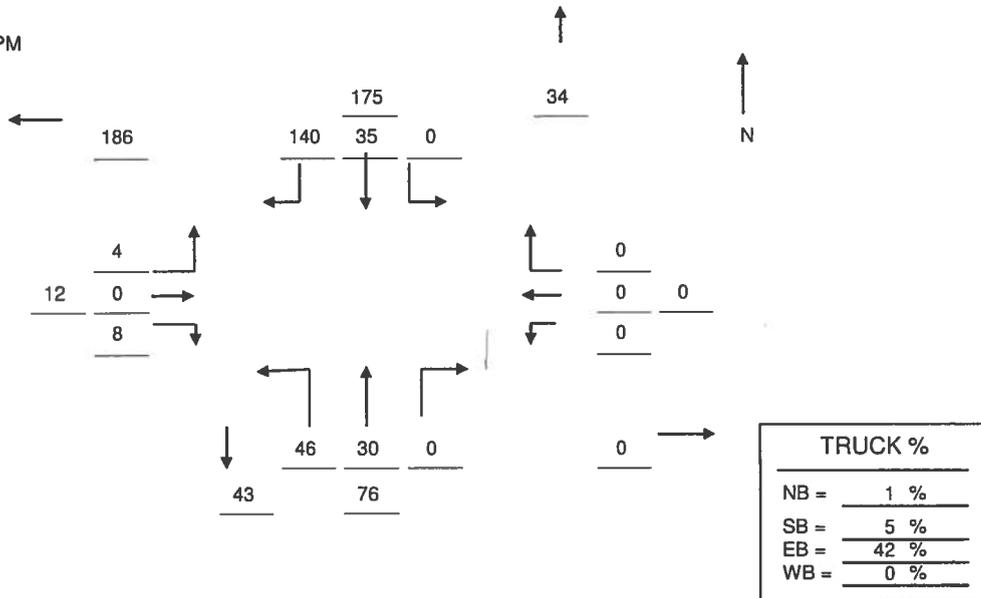
LOCATION: Fifth Street @ Crescent Street  
 COUNTY : Lee  
 OBSERVER: PW

CITY: Fort Myers Beach  
 DATE: 09/08/2016 Thursday

AM Peak Hour  
 9:30 AM 10:30 AM



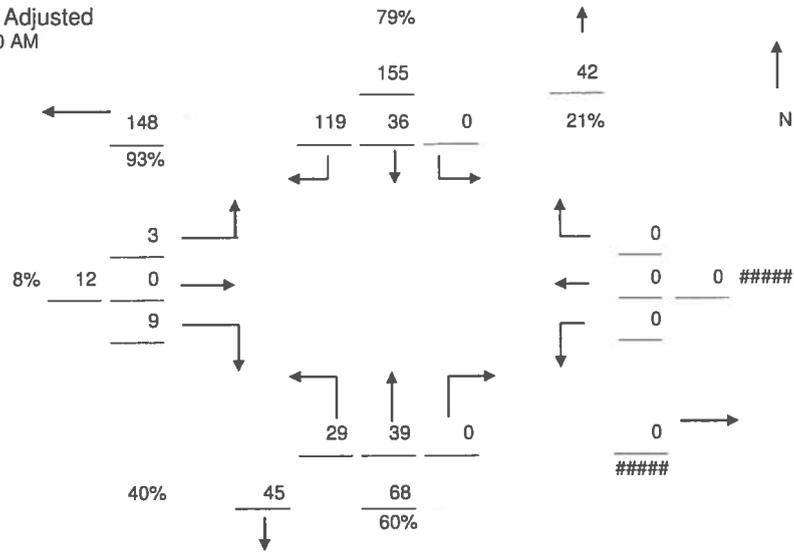
PM Peak Hour  
 4:30 PM 5:30 PM



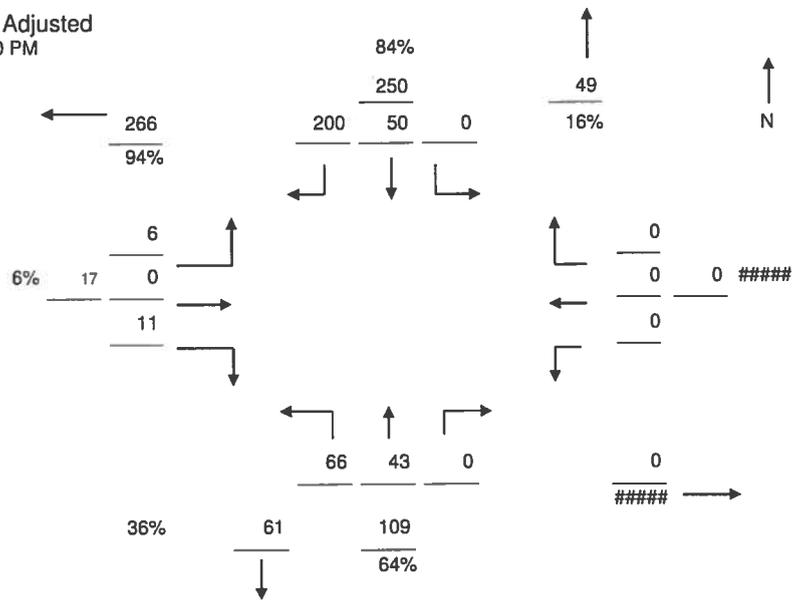
## DPA ADJUSTED TURNING MOVEMENT DIAGRAM

LOCATION:	Fifth Street @ Crescent Street	REPORT:	2015
COUNTY :	Lee	STATION:	44
OBSERVER:	PW	MONTHLY:	0.77
		ANNUAL:	1.10
		ADJUSTMENT FACTOR:	1.43

AM Peak Hour - Adjusted  
9:30 AM 10:30 AM



PM Peak Hour - Adjusted  
4:30 PM 5:30 PM



**TURNING MOVEMENT COUNTS**  
**FIXED PM PEAK HOUR (3:30 PM – 4:30 PM)**

**DAVID PLUMMER & ASSOCIATES  
SUMMARY OF VEHICLE MOVEMENTS**

**TRAFFIC COUNT ADJUSTMENT FACTORS**

File# \_\_\_\_\_  
Job # 16537

Project name: Times Square Resort  
Job number: 16537

Count location: San Carlos Blvd @ Fifth Street @ Estero Blvd  
County: Lee  
City: Fort Myers Beach  
Date: 09/08/2016  
Day of Week: Thursday  
Weather: Good  
Road Condition: Good

Observer: TH/LH  
Remark: Illegal EB Fifth Street Lefts / WB Fifth Street Thrus

Intersection Description:  
From North (SB): San Carlos Blvd  
From South (NB): San Carlos Blvd  
From East (WB): Fifth Street  
From West (EB): Fifth Street

AM Peak Hour: 9:15 AM to 10:15 AM  
PM Peak Hour: 3:30 PM to 4:30 PM

**LEE COUNTY ADJUSTMENT FACTOR**

Traffic count report: 2015  
Permanent count station: 44  
Month of count AADT: 0.77  
AADT to peak season 1.10

$$\text{Factor} = 1.00 \times 0.77 \times 1.10 = 1.43$$

David Plummer & Associates  
Based On  
MSHA Highway Information Services Division  
Turning Counts Study - Field Sheet

Request No.: Times Square Resort  
Job No.: 16537

Location: San Carlos Blvd @ Fifth Street @ Estero  
Date: 09/08/2011 Thursday  
Recorder: TH/LH  
Interval (dd): 15  
(In Minutes)

County: Lee  
Town: Fort Myers Beach  
Weather: Good

PEAK HOURS	AM PERIOD 6:00AM-12:00PM	Start	End	Volume	PM PERIOD 12:00PM-7:00PM	Start	End	Volume
		9:15 AM	10:15 AM	1166		3:30 PM	4:30 PM	1308

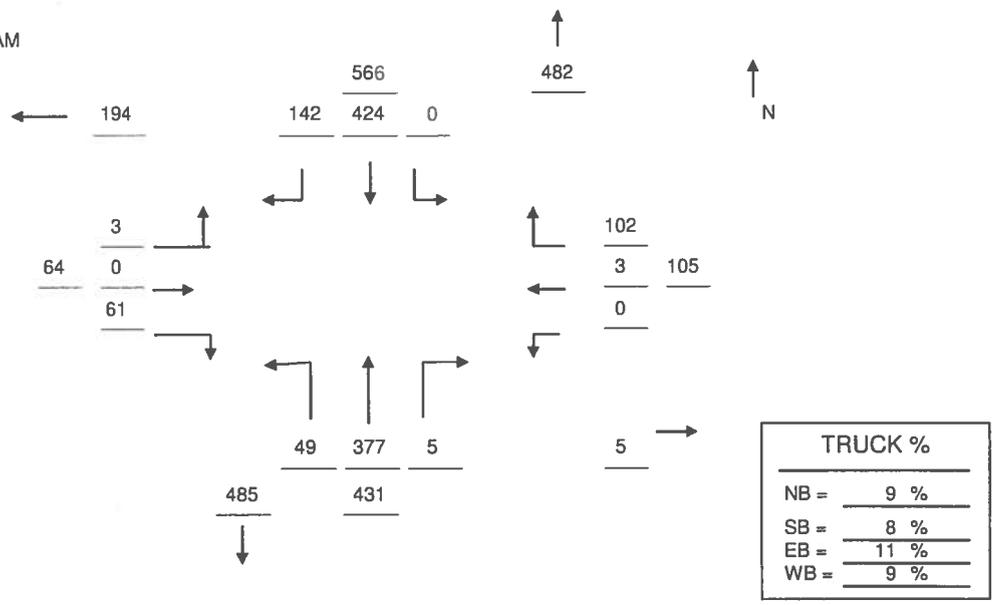
Street Name-> HOUR ENDING	San Carlos Blvd Southbound				San Carlos Blvd Northbound				Fifth Street Westbound				Fifth Street Eastbound				GRAND TOTAL
	L	T	R	TOT	L	T	R	TOT	L	T	R	TOT	L	T	R	TOT	
	7:15 AM				0				0				0				
7:30 AM				0				0				0				0	0
7:45 AM	0	122	34	156	5	66	0	71	0	0	17	17	0	0	9	9	253
8:00 AM	0	114	33	147	13	76	0	89	0	0	11	11	0	0	7	7	254
8:15 AM	0	103	32	135	7	64	1	72	0	0	20	20	0	0	7	7	234
8:30 AM	0	118	26	144	8	63	1	72	0	0	13	13	0	0	7	7	236
8:45 AM	0	115	51	166	14	64	0	78	0	0	22	22	0	0	16	16	282
9:00 AM	0	104	39	143	6	82	0	88	0	0	21	21	0	0	15	15	267
9:15 AM	0	105	52	157	6	86	0	92	0	0	27	27	0	0	11	11	287
9:30 AM	0	93	33	126	5	98	3	106	0	0	22	22	1	0	22	23	277
9:45 AM	0	104	34	138	13	102	0	115	0	2	23	25	1	0	16	17	295
10:00 AM	0	99	42	141	11	85	0	96	0	0	24	24	0	0	13	13	274
10:15 AM	0	128	33	161	20	92	2	114	0	1	33	34	1	0	10	11	320
10:30 AM	0	99	29	128	13	91	0	104	0	0	25	25	0	0	16	16	273
10:45 AM				0		0		0				0				0	0
11:00 AM				0		0		0				0				0	0
11:15 AM				0				0				0				0	0
11:30 AM				0				0				0				0	0
11:45 AM				0				0				0				0	0
12:00 PM				0				0				0				0	0
12:15 PM				0				0				0				0	0
12:30 PM				0				0				0				0	0
12:45 PM				0				0				0				0	0
1:00 PM				0				0				0				0	0
1:15 PM				0				0				0				0	0
1:30 PM				0				0				0				0	0
1:45 PM				0				0				0				0	0
2:00 PM				0				0				0				0	0
2:15 PM				0				0				0				0	0
2:30 PM				0				0				0				0	0
2:45 PM				0				0				0				0	0
3:00 PM				0				0				0				0	0
3:15 PM				0				0				0				0	0
3:30 PM				0				0				0				0	0
3:45 PM	1	89	36	126	16	120	1	137	0	0	54	54	0	0	24	24	341
4:00 PM	0	83	31	114	15	119	0	134	0	0	42	42	0	0	13	13	303
4:15 PM	0	82	28	110	16	134	0	150	0	0	45	45	1	0	26	27	332
4:30 PM	0	92	32	124	13	130	0	143	0	0	46	46	0	0	19	19	332
4:45 PM	0	79	24	103	14	112	1	127	1	0	48	49	0	0	17	17	296
5:00 PM	0	99	33	132	14	113	1	128	0	0	35	35	0	1	13	14	309
5:15 PM	0	81	29	110	19	102	0	121	0	0	58	58	0	0	20	20	309
5:30 PM	0	100	34	134	20	125	0	145	0	0	40	40	1	0	22	23	342
5:45 PM	0	112	25	137	25	103	0	128	0	1	22	23	1	0	21	22	310
6:00 PM	0	95	41	136	18	112	0	130	0	0	25	25	1	0	14	15	306
6:15 PM	0	96	39	135	19	99	2	120	0	0	29	29	0	0	25	25	309
6:30 PM	0	91	28	119	13	81	2	96	0	0	33	33	1	0	20	21	269
<b>TOTAL</b>	<b>1</b>	<b>2403</b>	<b>818</b>	<b>3222</b>	<b>323</b>	<b>2319</b>	<b>14</b>	<b>2656</b>	<b>1</b>	<b>4</b>	<b>735</b>	<b>740</b>	<b>8</b>	<b>1</b>	<b>383</b>	<b>392</b>	<b>7010</b>
AM Peak Vol	0	424	142	566	49	377	5	431	0	3	102	105	3	0	61	64	1166
PM Peak Vol	1	346	127	474	60	503	1	564	0	0	187	187	1	0	82	83	1308

Peak Hour Factor (PHF)																	
AM Peak Hour	0.88				0.94				0.77				0.70				0.91
PM Peak Hour	0.94				0.94				0.87				0.77				0.96

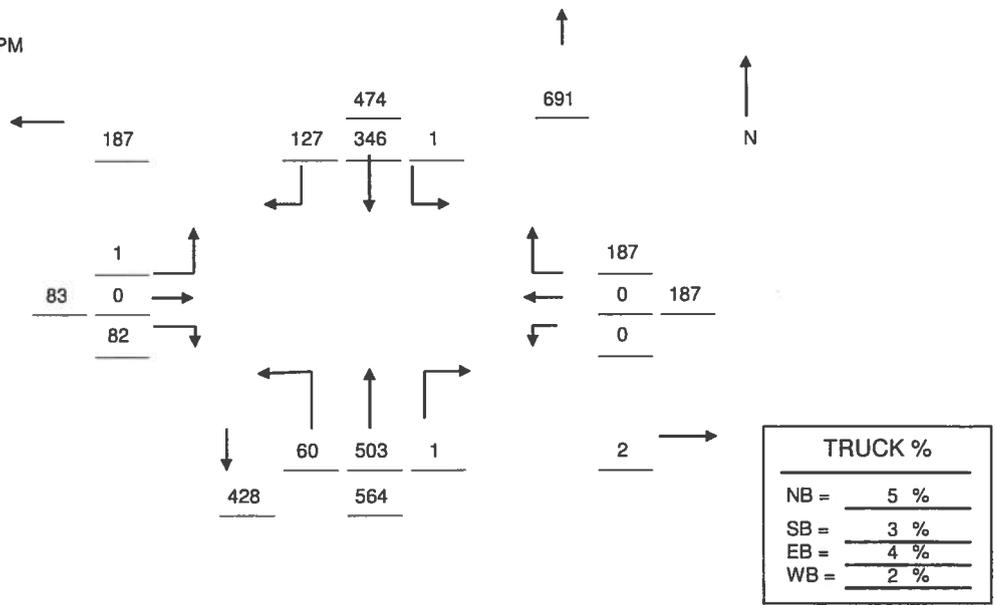
## DPA RAW TURNING MOVEMENT DIAGRAM

LOCATION:	San Carlos Blvd @ Fifth Street @ Estero Blvd	CITY: Fort Myers Beach
COUNTY :	Lee	DATE: 09/08/2016
OBSERVER:	TH/LH	Thursday

AM Peak Hour  
9:15 AM 10:15 AM



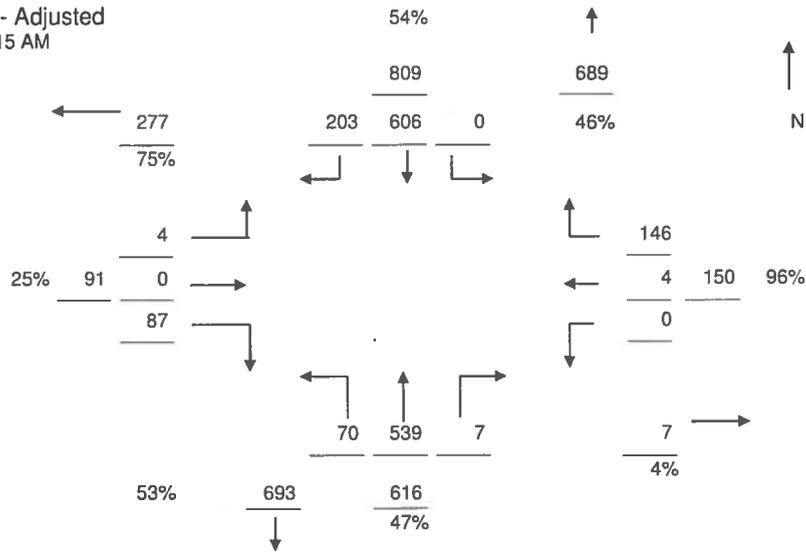
PM Peak Hour  
3:30 PM 4:30 PM



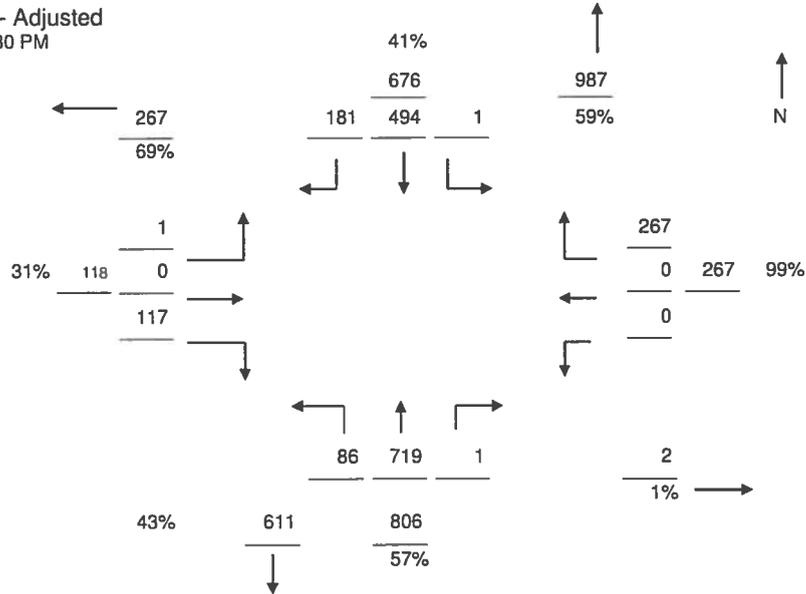
## DPA ADJUSTED TURNING MOVEMENT DIAGRAM

LOCATION:	San Carlos Blvd @ Fifth Street @ Estero Blvd	REPORT:	2015
COUNTY :	Lee	STATION:	44
OBSERVER:	TH/LH	MONTHLY:	0.77
		ANNUAL:	1.10
		ADJUSTMENT FACTOR:	1.43

### AM Peak Hour - Adjusted 9:15 AM 10:15 AM



### PM Peak Hour - Adjusted 3:30 PM 4:30 PM



**DAVID PLUMMER & ASSOCIATES  
SUMMARY OF VEHICLE MOVEMENTS**

**TRAFFIC COUNT ADJUSTMENT FACTORS**

File# \_\_\_\_\_  
Job # 16537

Project name: Times Square Resort  
Job number: 16537

Count location: Estero Blvd @ Crescent Street  
County: Lee  
City: Fort Myers Beach  
Date: 09/08/2016  
Day of Week: Thursday  
Weather: Good  
Road Condition: Good

Observer: DC/RC  
Remark: None

Intersection Description:  
From North (SB): Crescent Street  
From South (NB): Motel Parking Lot  
From East (WB): Estero Blvd  
From West (EB): Estero Blvd

AM Peak Hour: 9:30 AM to 10:30 AM  
PM Peak Hour: 3:30 PM to 4:30 PM

**LEE COUNTY ADJUSTMENT FACTOR**

Traffic count report: 2015  
Permanent count station: 44  
Month of count AADT: 0.77  
AADT to peak season 1.10

$$\text{Factor} = 1.00 \div 0.77 \times 1.10 = 1.43$$

David Plummer & Associates  
Based On  
MSHA Highway Information Services Division  
Turning Counts Study - Field Sheet

Request No.: Times Square Resort  
Job No.: 16537

Location: Estero Blvd @ Crescent Street  
Date: 09/08/2011 Thursday  
Recorder: DC/RC  
Interval (dd): 15  
(In Minutes)

County: Lee  
Town: Fort Myers Beach  
Weather: Good

PEAK HOURS	AM PERIOD 6:00AM-12:00PM	Start	End	Volume	PM PERIOD 12:00PM-7:00PM	Start	End	Volume
		9:30 AM	10:30 AM	968		3:30 PM	4:30 PM	1046

Street Name-> HOUR ENDING	Crescent Street				Motel Parking Lot				Estero Blvd				Estero Blvd				GRAND TOTAL	
	Southbound				Northbound				Westbound				Eastbound					
	L	T	R	TOT	L	T	R	TOT	L	T	R	TOT	L	T	R	TOT		
7:15 AM				0				0				0				0	0	
7:30 AM				0				0				0				0	0	
7:45 AM	1	0	1	2	0	0	0	0	0	0	68	2	70	3	133	0	136	208
8:00 AM	1	0	2	3	0	0	0	0	0	0	106	4	110	2	135	0	137	250
8:15 AM	0	0	0	0	0	0	0	0	0	0	55	2	57	5	101	0	106	163
8:30 AM	5	0	2	7	0	0	1	1	0	0	75	1	76	3	135	1	139	223
8:45 AM	6	0	2	8	0	0	0	0	1	0	91	6	98	8	132	0	140	246
9:00 AM	2	0	2	4	0	0	0	0	0	0	72	3	75	7	116	0	123	202
9:15 AM	12	0	4	16	0	0	0	0	0	0	96	9	105	7	144	0	151	272
9:30 AM	4	0	2	6	0	0	0	0	0	0	102	2	104	6	118	1	125	235
9:45 AM	2	0	2	4	0	0	0	0	0	0	119	11	130	8	98	0	106	240
10:00 AM	5	0	2	7	0	0	0	0	0	0	87	2	89	5	113	0	118	214
10:15 AM	5	0	3	8	0	0	0	0	0	0	110	9	119	17	127	0	144	271
10:30 AM	10	0	5	15	0	0	0	0	0	0	102	3	105	7	116	0	123	243
10:45 AM				0				0					0				0	0
11:00 AM				0				0					0				0	0
11:15 AM				0				0					0				0	0
11:30 AM				0				0					0				0	0
11:45 AM				0				0					0				0	0
12:00 PM				0				0					0				0	0
12:15 PM				0				0					0				0	0
12:30 PM				0				0					0				0	0
12:45 PM				0				0					0				0	0
1:00 PM				0				0					0				0	0
1:15 PM				0				0					0				0	0
1:30 PM				0				0					0				0	0
1:45 PM				0				0					0				0	0
2:00 PM				0				0					0				0	0
2:15 PM				0				0					0				0	0
2:30 PM				0				0					0				0	0
2:45 PM				0				0					0				0	0
3:00 PM				0				0					0				0	0
3:15 PM				0				0					0				0	0
3:30 PM				0				0					0				0	0
3:45 PM	9	0	5	14	2	0	0	2	0	0	144	9	153	11	93	1	105	274
4:00 PM	5	0	3	8	0	0	0	0	0	0	112	5	117	8	94	0	102	227
4:15 PM	12	0	4	16	0	0	0	0	0	0	151	8	159	15	95	0	110	285
4:30 PM	6	0	3	9	0	0	0	0	0	0	143	9	152	20	79	0	99	260
4:45 PM				0				0					0				0	0
5:00 PM				0				0					0				0	0
5:15 PM				0				0					0				0	0
5:30 PM				0				0					0				0	0
5:45 PM				0				0					0				0	0
6:00 PM				0				0					0				0	0
6:15 PM				0				0					0				0	0
6:30 PM				0				0					0				0	0

TOTAL	85	0	42	127	2	0	1	3	1	1633	85	1719	132	1829	3	1964	3813
AM Peak Vol	22	0	12	34	0	0	0	0	0	418	25	443	37	454	0	491	968
PM Peak Vol	32	0	15	47	2	0	0	2	0	550	31	581	54	361	1	416	1046

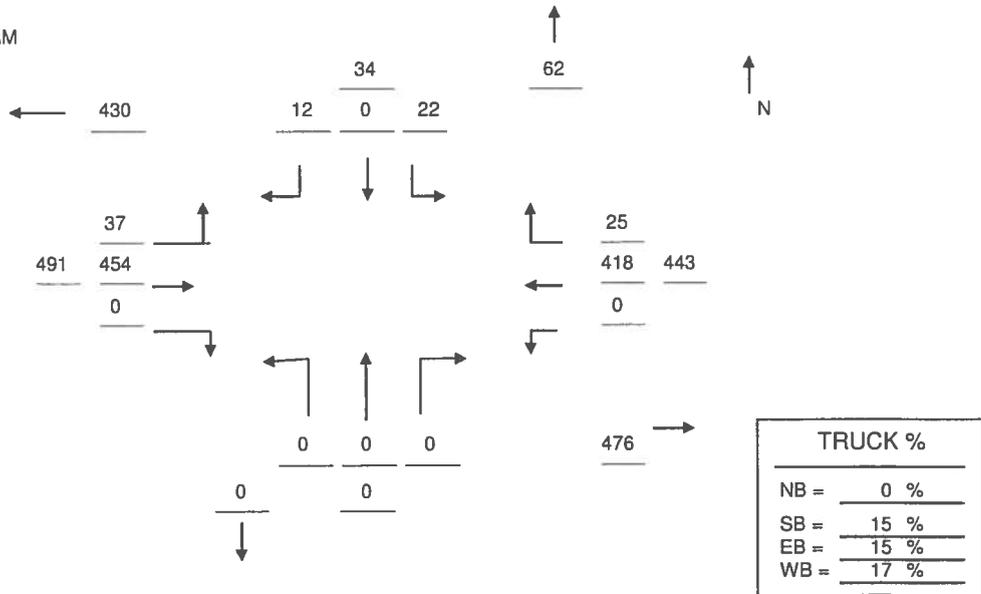
Peak Hour Factor (PHF)																	
AM Peak Hour	0.57				0.00					0.85				0.85			0.89
PM Peak Hour	0.73				0.25					0.91				0.95			0.92

## DPA RAW TURNING MOVEMENT DIAGRAM

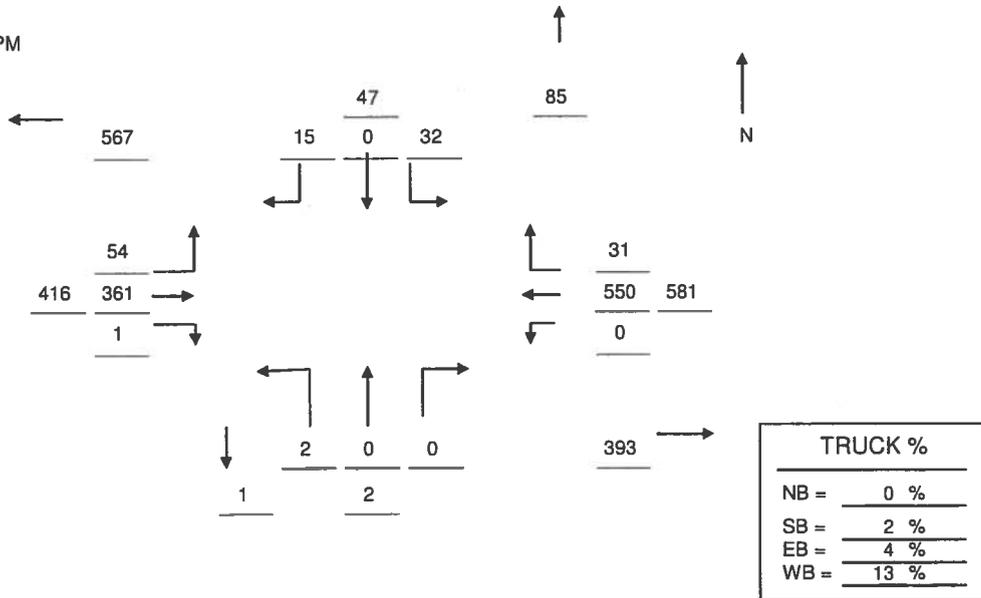
LOCATION: Estero Blvd @ Crescent Street  
 COUNTY : Lee  
 OBSERVER: DC/RC

CITY: Fort Myers Beach  
 DATE: 09/08/2016 Thursday

AM Peak Hour  
 9:30 AM 10:30 AM



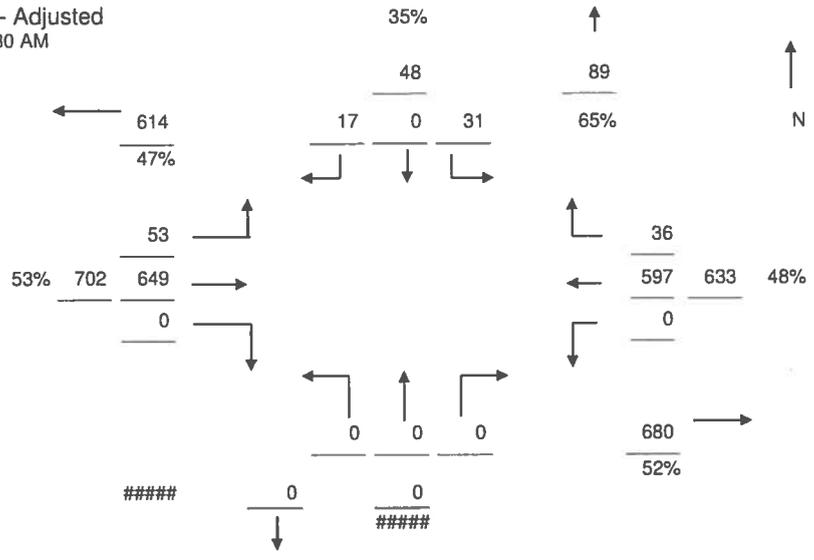
PM Peak Hour  
 3:30 PM 4:30 PM



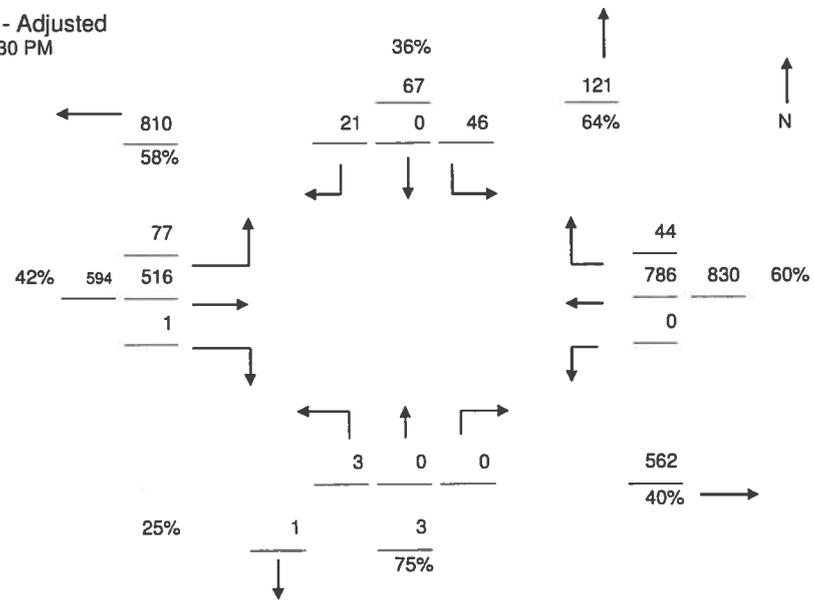
## DPA ADJUSTED TURNING MOVEMENT DIAGRAM

LOCATION:	Estero Blvd @ Crescent Street	REPORT:	2015
COUNTY :	Lee	STATION:	44
OBSERVER:	DC/RC	MONTHLY:	0.77
		ANNUAL:	1.10
		ADJUSTMENT FACTOR:	1.43

AM Peak Hour - Adjusted  
9:30 AM 10:30 AM



PM Peak Hour - Adjusted  
3:30 PM 4:30 PM



**DAVID PLUMMER & ASSOCIATES  
SUMMARY OF VEHICLE MOVEMENTS**

**TRAFFIC COUNT ADJUSTMENT FACTORS**

File# \_\_\_\_\_  
Job # 16537

Project name: Times Square Resort  
Job number: 16537

Count location: Fifth Street @ Crescent Street  
County: Lee  
City: Fort Myers Beach  
Date: 09/08/2016  
Day of Week: Thursday  
Weather: Good  
Road Condition: Good

Observer: PW  
Remark: None

Intersection Description:  
From North (SB): Crescent Street  
From South (NB): Crescent Street  
From East (WB): None  
From West (EB): Fifth Street

AM Peak Hour: 9:30 AM to 10:30 AM  
PM Peak Hour: 3:30 PM to 4:30 PM

**LEE COUNTY ADJUSTMENT FACTOR**

Traffic count report: 2015  
Permanent count station: 44  
Month of count AADT: 0.77  
AADT to peak season 1.10

$$\text{Factor} = 1.00 \div 0.77 \times 1.10 = 1.43$$

David Plummer & Associates  
Based On  
MSHA Highway Information Services Division  
Turning Counts Study - Field Sheet

Request No.: Times Square Resort  
Job No.: 16537

Location: Fifth Street @ Crescent Street  
Date: 09/08/2014 Thursday  
Recorder: PW  
Interval (dd): 15  
(In Minutes)

County: Lee  
Town: Fort Myers Beach  
Weather: Good

PEAK HOURS	AM PERIOD 6:00AM-12:00PM	Start	End	Volume	PM PERIOD 12:00PM-7:00PM	Start	End	Volume
		9:30 AM	10:30 AM	163		3:30 PM	4:30 PM	249

Street Name-> HOUR ENDING	Crescent Street Southbound				Crescent Street Northbound				None Westbound				Fifth Street Eastbound				GRAND TOTAL
	L	T	R	TOT	L	T	R	TOT	L	T	R	TOT	L	T	R	TOT	
	7:15 AM				0				0				0				
7:30 AM				0				0				0				0	0
7:45 AM	0	0	10	10	3	2	0	5	0	0	0	0	0	0	0	0	15
8:00 AM	0	2	11	13	3	2	0	5	0	0	0	0	0	0	0	0	18
8:15 AM	0	0	17	17	0	6	0	6	0	0	0	0	1	0	0	1	24
8:30 AM	0	3	11	14	3	1	0	4	0	0	0	0	0	0	4	4	22
8:45 AM	1	1	14	16	6	3	0	9	0	0	0	0	0	0	3	3	28
9:00 AM	0	5	14	19	10	6	0	16	0	0	0	0	0	0	1	1	36
9:15 AM	0	8	19	27	8	6	0	14	0	0	0	0	0	0	4	4	45
9:30 AM	0	5	18	23	5	5	0	10	0	0	0	0	1	0	3	4	37
9:45 AM	0	2	19	21	6	10	0	16	0	0	0	0	0	0	0	0	37
10:00 AM	0	7	18	25	2	3	0	5	0	0	0	0	0	0	0	0	30
10:15 AM	0	7	25	32	7	12	0	19	0	0	0	0	2	0	4	6	57
10:30 AM	0	9	21	30	5	2	0	7	0	0	0	0	0	0	2	2	39
10:45 AM				0				0				0				0	0
11:00 AM				0				0				0				0	0
11:15 AM				0				0				0				0	0
11:30 AM				0				0				0				0	0
11:45 AM				0				0				0				0	0
12:00 PM				0				0				0				0	0
12:15 PM				0				0				0				0	0
12:30 PM				0				0				0				0	0
12:45 PM				0				0				0				0	0
1:00 PM				0				0				0				0	0
1:15 PM				0				0				0				0	0
1:30 PM				0				0				0				0	0
1:45 PM				0				0				0				0	0
2:00 PM				0				0				0				0	0
2:15 PM				0				0				0				0	0
2:30 PM				0				0				0				0	0
2:45 PM				0				0				0				0	0
3:00 PM				0				0				0				0	0
3:15 PM				0				0				0				0	0
3:30 PM				0				0				0				0	0
3:45 PM	0	6	38	44	12	9	0	21	0	0	0	0	1	0	1	2	67
4:00 PM	0	10	33	43	8	9	0	17	0	0	0	0	0	0	0	0	60
4:15 PM	0	8	33	41	12	10	0	22	0	0	0	0	0	0	2	2	65
4:30 PM	0	4	32	36	9	10	0	19	0	0	0	0	0	0	2	2	57
4:45 PM				0				0				0				0	0
5:00 PM				0				0				0				0	0
5:15 PM				0				0				0				0	0
5:30 PM				0				0				0				0	0
5:45 PM				0				0				0				0	0
6:00 PM				0				0				0				0	0
6:15 PM				0				0				0				0	0
6:30 PM				0				0				0				0	0

<b>TOTAL</b>	1	77	333	411	99	96	0	195	0	0	0	0	5	0	26	31	637
AM Peak Vol	0	25	83	108	20	27	0	47	0	0	0	0	2	0	6	8	163
PM Peak Vol	0	28	136	164	41	38	0	79	0	0	0	0	1	0	5	6	249

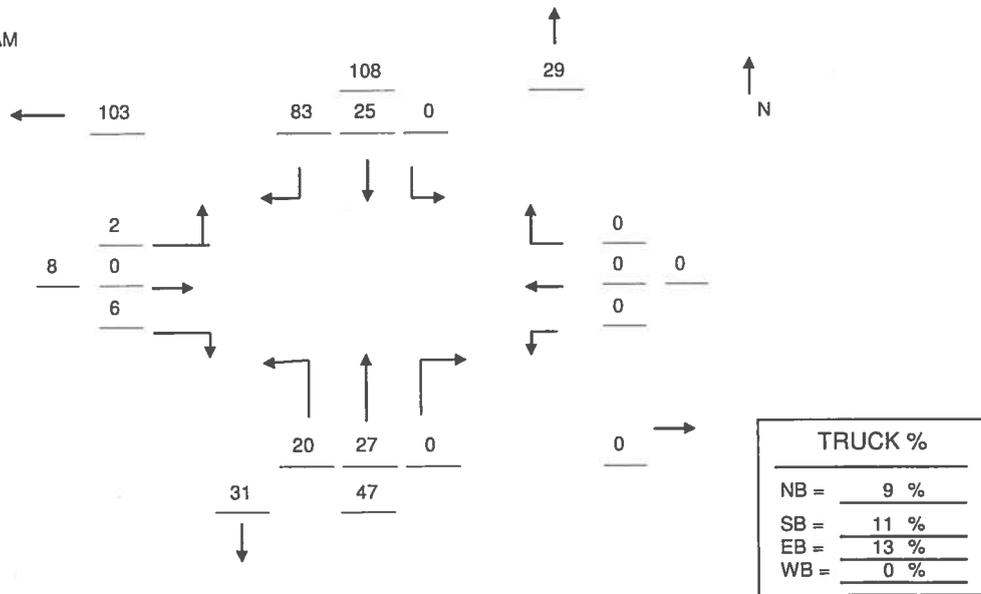
<b>Peak Hour Factor (PHF)</b>																	
AM Peak Hour	0.84				0.62				0.00				0.33				0.71
PM Peak Hour	0.93				0.90				0.00				0.75				0.93

## DPA RAW TURNING MOVEMENT DIAGRAM

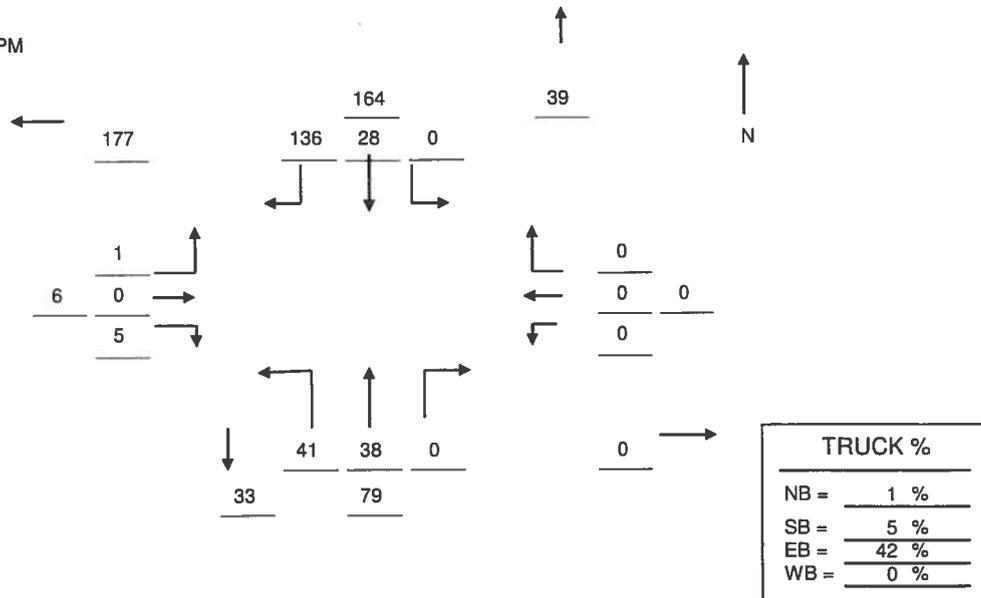
LOCATION: Fifth Street @ Crescent Street  
 COUNTY : Lee  
 OBSERVER: PW

CITY: Fort Myers Beach  
 DATE: 09/08/2016 Thursday

AM Peak Hour  
 9:30 AM 10:30 AM



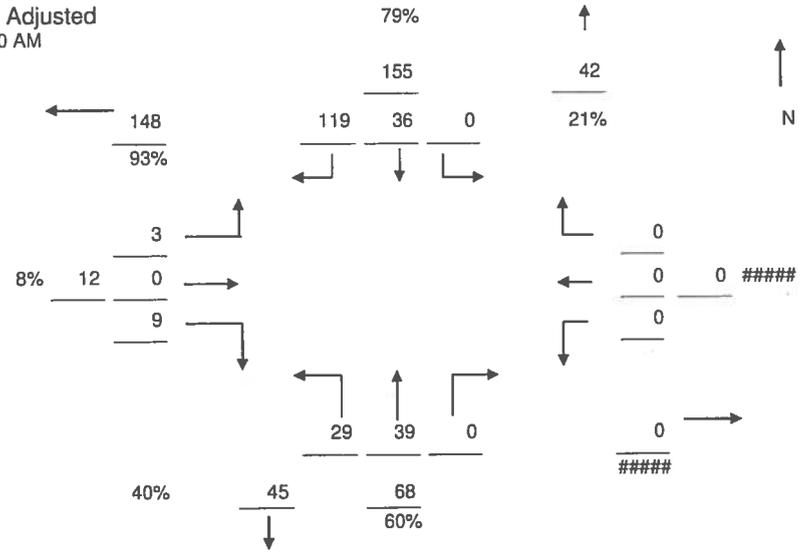
PM Peak Hour  
 3:30 PM 4:30 PM



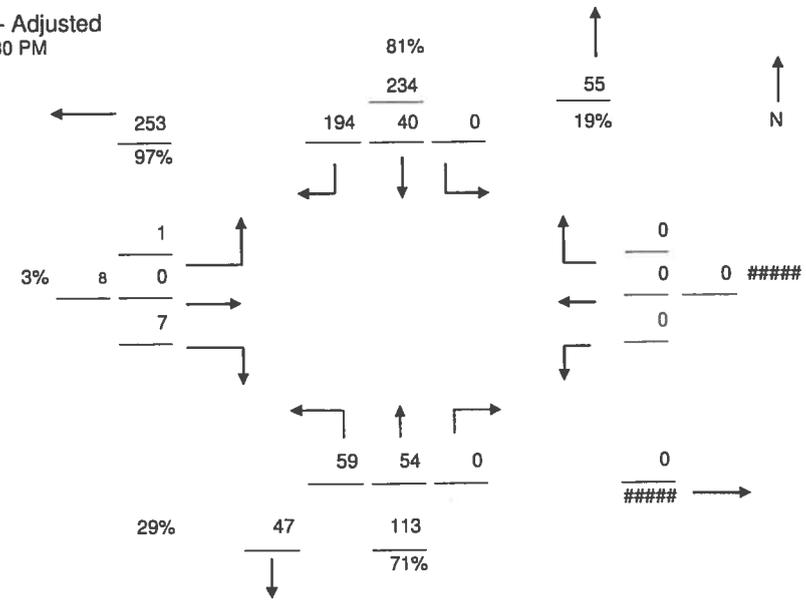
**DPA  
ADJUSTED TURNING MOVEMENT DIAGRAM**

LOCATION:	Fifth Street @ Crescent Street	REPORT:	2015
COUNTY :	Lee	STATION:	44
OBSERVER:	PW	MONTHLY:	0.77
		ANNUAL:	1.10
		ADJUSTMENT FACTOR:	1.43

AM Peak Hour - Adjusted  
9:30 AM 10:30 AM



PM Peak Hour - Adjusted  
3:30 PM 4:30 PM



**APPENDIX G**  
**SYNCHRO/HCM**  
**INTERSECTION ANALYSIS OUTPUT**

Lanes, Volumes, Timings  
 22: Estero Blvd/San Carlos Blvd & Fifth St

11/30/2016



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗			↗	↗	↗			↖	↗
Traffic Volume (vph)	0	0	117	0	0	267	86	719	1	0	494	181
Future Volume (vph)	0	0	117	0	0	267	86	719	1	0	494	181
Satd. Flow (prot)	0	0	1580	0	0	1611	1719	1810	0	0	1845	1568
Flt Permitted							0.950					
Satd. Flow (perm)	0	0	1580	0	0	1611	1719	1810	0	0	1845	1568
Lane Group Flow (vph)	0	0	127	0	0	290	93	783	0	0	537	197
Sign Control		Stop			Stop			Free			Free	

**Intersection Summary**  
 Control Type: Unsignalized  
 Intersection Capacity Utilization 61.1%      ICU Level of Service B  
 Analysis Period (min) 15

HCM 2010 TWSC  
 22: Estero Blvd/San Carlos Blvd & Fifth St

11/30/2016

Intersection												
Int Delay, s/veh	6.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗			↗	↘	↘			↗	↗
Traffic Vol, veh/h	0	0	117	0	0	267	86	719	1	0	494	181
Future Vol, veh/h	0	0	117	0	0	267	86	719	1	0	494	181
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	Yield
Storage Length	-	-	0	-	-	0	100	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	4	4	4	2	2	2	5	5	5	3	3	3
Mvmt Flow	0	0	127	0	0	290	93	782	1	0	537	197

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	537	-	-	782	537	0	0	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.24	-	-	6.22	4.15	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.336	-	-	3.318	2.245	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	540	0	0	394	1016	-	-	0	-	-
Stage 1	0	0	-	0	0	-	-	-	-	0	-	-
Stage 2	0	0	-	0	0	-	-	-	-	0	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	540	-	-	394	1016	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.7	35.7	0.9	0
HCM LOS	B	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	1016	-	-	540	394	-	-
HCM Lane V/C Ratio	0.092	-	-	0.236	0.737	-	-
HCM Control Delay (s)	8.9	-	-	13.7	35.7	-	-
HCM Lane LOS	A	-	-	B	E	-	-
HCM 95th %tile Q(veh)	0.3	-	-	0.9	5.8	-	-

Lanes, Volumes, Timings  
 9: Estero Blvd & Crescent St

11/30/2016



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	77	516	786	44	46	21
Future Volume (vph)	77	516	786	44	46	21
Satd. Flow (prot)	1736	1827	1670	0	1724	0
Flt Permitted	0.950			0.967		
Satd. Flow (perm)	1736	1827	1670	0	1724	0
Lane Group Flow (vph)	84	561	902	0	73	0
Sign Control		Free	Free		Stop	

Intersection Summary	
Control Type: Unsignalized	
Intersection Capacity Utilization 62.1%	ICU Level of Service B
Analysis Period (min) 15	

HCM 2010 TWSC  
 9: Estero Blvd & Crescent St

11/30/2016

**Intersection**

Int Delay, s/veh 1.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↗	↔		↘	↗
Traffic Vol, veh/h	77	516	786	44	46	21
Future Vol, veh/h	77	516	786	44	46	21
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	4	4	13	13	2	2
Mvmt Flow	84	561	854	48	50	23

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	902	0	1606
Stage 1	-	-	878
Stage 2	-	-	728
Critical Hdwy	4.14	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.236	-	3.518
Pot Cap-1 Maneuver	745	-	116
Stage 1	-	-	406
Stage 2	-	-	478
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	745	-	103
Mov Cap-2 Maneuver	-	-	236
Stage 1	-	-	406
Stage 2	-	-	424

Approach	EB	WB	SB
HCM Control Delay, s	1.4	0	23.9
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	745	-	-	-	262
HCM Lane V/C Ratio	0.112	-	-	-	0.278
HCM Control Delay (s)	10.4	-	-	-	23.9
HCM Lane LOS	B	-	-	-	C
HCM 95th %tile Q(veh)	0.4	-	-	-	1.1

Lanes, Volumes, Timings  
6: Crescent St & Fifth St

11/30/2016



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	1	7	59	54	40	194
Traffic Volume (vph)	1	7	59	54	40	194
Future Volume (vph)	1	7	59	54	40	194
Satd. Flow (prot)	1170	0	0	1834	1607	0
Flt Permitted	0.994			0.975		
Satd. Flow (perm)	1170	0	0	1834	1607	0
Lane Group Flow (vph)	9	0	0	123	254	0
Sign Control	Stop			Stop	Stop	

Intersection Summary

Control Type: Unsignalized

Intersection Capacity Utilization 33.5%

ICU Level of Service A

Analysis Period (min) 15

HCM 2010 AWSC  
6: Crescent St & Fifth St

11/30/2016

**Intersection**

Intersection Delay, s/veh 7.9  
Intersection LOS A

Movement	EBU	EBL	EBR	NBU	NBL	NBT	SBU	SBT	SBR
Lane Configurations		Y				↑		↑	
Traffic Vol, veh/h	0	1	7	0	59	54	0	40	194
Future Vol, veh/h	0	1	7	0	59	54	0	40	194
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	42	42	0	1	1	0	5	5
Mvmt Flow	0	1	8	0	64	59	0	43	211
Number of Lanes	0	1	0	0	0	1	0	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	7.9	8	7.9
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	52%	12%	0%
Vol Thru, %	48%	0%	17%
Vol Right, %	0%	88%	83%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	113	8	234
LT Vol	59	1	0
Through Vol	54	0	40
RT Vol	0	7	194
Lane Flow Rate	123	9	254
Geometry Grp	1	1	1
Degree of Util (X)	0.144	0.012	0.254
Departure Headway (Hd)	4.226	4.868	3.594
Convergence, Y/N	Yes	Yes	Yes
Cap	848	740	995
Service Time	2.258	2.868	1.631
HCM Lane V/C Ratio	0.145	0.012	0.255
HCM Control Delay	8	7.9	7.9
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.5	0	1

Lanes, Volumes, Timings  
 22: Estero Blvd/San Carlos Blvd & Fifth St

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	122	0	0	278	89	748	1	0	514	188
Future Volume (vph)	0	0	122	0	0	335	89	748	1	0	562	188
Satd. Flow (prot)	0	0	1580	0	0	1611	1719	1810	0	0	1845	1568
Flt Permitted							0.950					
Satd. Flow (perm)	0	0	1580	0	0	1611	1719	1810	0	0	1845	1568
Lane Group Flow (vph)	0	0	133	0	0	364	97	814	0	0	611	204
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Control Type: Unsignalized  
 Intersection Capacity Utilization 63.3%  
 Analysis Period (min) 15  
 ICU Level of Service B

HCM 2010 TWSC  
22: Estero Blvd/San Carlos Blvd & Fifth St

Intersection												
Int Delay, s/veh	12.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗			↗	↘	↘			↗	↗
Traffic Vol, veh/h	0	0	122	0	0	278	89	748	1	0	514	188
Future Vol, veh/h	0	0	122	0	0	335	89	748	1	0	562	188
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	Yield
Storage Length	-	-	0	-	-	0	100	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	4	4	4	2	2	2	5	5	5	3	3	3
Mvmt Flow	0	0	133	0	0	364	97	813	1	0	611	204

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	611	-	-	814	611	0	0	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.24	-	-	6.22	4.15	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.336	-	-	3.318	2.245	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	490	0	0	378	953	-	-	0	-	-
Stage 1	0	0	-	0	0	-	-	-	-	0	-	-
Stage 2	0	0	-	0	0	-	-	-	-	0	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	490	-	-	378	953	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	15.1	71	1	0
HCM LOS	C	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	953	-	-	490	378	-	-
HCM Lane V/C Ratio	0.102	-	-	0.271	0.963	-	-
HCM Control Delay (s)	9.2	-	-	15.1	71	-	-
HCM Lane LOS	A	-	-	C	F	-	-
HCM 95th %tile Q(veh)	0.3	-	-	1.1	10.9	-	-

Lanes, Volumes, Timings  
 9: Estero Blvd & Crescent St



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↕	↗	↖		↘	
Traffic Volume (vph)	80	537	817	46	48	22
Future Volume (vph)	128	537	817	68	74	22
Satd. Flow (prot)	1736	1827	1665	0	1738	0
Flt Permitted	0.950				0.963	
Satd. Flow (perm)	1736	1827	1665	0	1738	0
Lane Group Flow (vph)	139	584	962	0	104	0
Sign Control		Free	Free		Stop	

Intersection Summary	
Control Type: Unsignalized	
Intersection Capacity Utilization 64.2%	ICU Level of Service C
Analysis Period (min) 15	

HCM 2010 TWSC  
9: Estero Blvd & Crescent St

Intersection						
Int Delay, s/veh	3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↗	↘		↗	
Traffic Vol, veh/h	80	537	817	46	48	22
Future Vol, veh/h	128	537	817	68	74	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	4	4	13	13	2	2
Mvmt Flow	139	584	888	74	80	24

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	962	0	1787
Stage 1	-	-	925
Stage 2	-	-	862
Critical Hdwy	4.14	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.236	-	3.518
Pot Cap-1 Maneuver	707	-	89
Stage 1	-	-	386
Stage 2	-	-	414
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	707	-	~ 72
Mov Cap-2 Maneuver	-	-	196
Stage 1	-	-	386
Stage 2	-	-	333

Approach	EB	WB	SB
HCM Control Delay, s	2.2	0	36.3
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	707	-	-	-	216
HCM Lane V/C Ratio	0.197	-	-	-	0.483
HCM Control Delay (s)	11.3	-	-	-	36.3
HCM Lane LOS	B	-	-	-	E
HCM 95th %tile Q(veh)	0.7	-	-	-	2.4

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon



HCM 2010 AWSC  
6: Crescent St & Fifth St

Intersection

Intersection Delay, s/veh	8.5
Intersection LOS	A

Movement	EBU	EBL	EBR	NBU	NBL	NBT	SBU	SBT	SBR
Lane Configurations		Y				Y		Y	
Traffic Vol, veh/h	0	1	7	0	61	56	0	42	202
Future Vol, veh/h	0	5	33	0	131	56	0	42	206
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	42	42	2	1	1	2	5	5
Mvmt Flow	0	5	36	0	142	61	0	46	224
Number of Lanes	0	1	0	0	0	1	0	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	8.4	8.8	8.3
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	70%	13%	0%
Vol Thru, %	30%	0%	17%
Vol Right, %	0%	87%	83%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	187	38	248
LT Vol	131	5	0
Through Vol	56	0	42
RT Vol	0	33	206
Lane Flow Rate	203	41	270
Geometry Grp	1	1	1
Degree of Util (X)	0.245	0.058	0.278
Departure Headway (Hd)	4.334	5.096	3.712
Convergence, Y/N	Yes	Yes	Yes
Cap	819	707	949
Service Time	2.41	3.096	1.81
HCM Lane V/C Ratio	0.248	0.058	0.285
HCM Control Delay	8.8	8.4	8.3
HCM Lane LOS	A	A	A
HCM 95th-tile Q	1	0.2	1.1

Lanes, Volumes, Timings  
 22: Estero Blvd/San Carlos Blvd & Fifth St

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	122	0	0	278	89	748	1	0	514	188
Future Volume (vph)	0	0	122	0	0	435	89	748	1	0	652	188
Satd. Flow (prot)	0	0	1580	0	0	1611	1719	1810	0	0	1845	1568
Flt Permitted							0.950					
Satd. Flow (perm)	0	0	1580	0	0	1611	1719	1810	0	0	1845	1568
Lane Group Flow (vph)	0	0	133	0	0	473	97	814	0	0	709	204
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Control Type: Unsignalized  
 Intersection Capacity Utilization 63.3%      ICU Level of Service B  
 Analysis Period (min) 15

HCM 2010 TWSC  
 22: Estero Blvd/San Carlos Blvd & Fifth St

Intersection												
Int Delay, s/veh	33.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗			↗	↖	↖			↗	↗
Traffic Vol, veh/h	0	0	122	0	0	278	89	748	1	0	514	188
Future Vol, veh/h	0	0	122	0	0	435	89	748	1	0	652	188
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	Yield
Storage Length	-	-	0	-	-	0	100	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	4	4	4	2	2	2	5	5	5	3	3	3
Mvmt Flow	0	0	133	0	0	473	97	813	1	0	709	204

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	709	-	-	814	709	0	0	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.24	-	-	6.22	4.15	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.336	-	-	3.318	2.245	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	431	0	0	~378	876	-	-	0	-	-
Stage 1	0	0	-	0	0	-	-	-	-	0	-	-
Stage 2	0	0	-	0	0	-	-	-	-	0	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	431	-	-	~378	876	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	17	163.4	1	0
HCM LOS	C	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	876	-	-	431	378	-	-
HCM Lane V/C Ratio	0.11	-	-	0.308	1.251	-	-
HCM Control Delay (s)	9.6	-	-	17	163.4	-	-
HCM Lane LOS	A	-	-	C	F	-	-
HCM 95th %tile Q(veh)	0.4	-	-	1.3	20.5	-	-

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon







HCM 2010 AWSC  
6: Crescent St & Fifth St

Intersection	
Intersection Delay, s/veh	10.3
Intersection LOS	B

Movement	EBU	EBL	EBR	NBU	NBL	NBT	SBU	SBT	SBR
Lane Configurations		↘				↗		↗	
Traffic Vol, veh/h	0	1	7	0	61	56	0	42	202
Future Vol, veh/h	0	13	80	0	263	56	0	42	213
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	42	42	2	1	1	2	5	5
Mvmt Flow	0	14	87	0	286	61	0	46	232
Number of Lanes	0	1	0	0	0	1	0	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	9.5	11.4	9.1
HCM LOS	A	B	A

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	82%	14%	0%
Vol Thru, %	18%	0%	16%
Vol Right, %	0%	86%	84%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	319	93	255
LT Vol	263	13	0
Through Vol	56	0	42
RT Vol	0	80	213
Lane Flow Rate	347	101	277
Geometry Grp	1	1	1
Degree of Util (X)	0.447	0.154	0.32
Departure Headway (Hd)	4.639	5.471	4.152
Convergence, Y/N	Yes	Yes	Yes
Cap	777	653	865
Service Time	2.674	3.529	2.186
HCM Lane V/C Ratio	0.447	0.155	0.32
HCM Control Delay	11.4	9.5	9.1
HCM Lane LOS	B	A	A
HCM 95th-tile Q	2.3	0.5	1.4

Lanes, Volumes, Timings  
 22: Estero Blvd/San Carlos Blvd & Fifth St

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	122	0	0	278	89	748	1	0	514	188
Future Volume (vph)	0	0	122	0	0	318	89	748	1	0	561	188
Satd. Flow (prot)	0	0	1580	0	0	1611	1719	1810	0	0	1845	1568
Flt Permitted							0.950					
Satd. Flow (perm)	0	0	1580	0	0	1611	1719	1810	0	0	1845	1568
Lane Group Flow (vph)	0	0	133	0	0	346	97	814	0	0	610	204
Sign Control		Stop			Stop			Free			Free	
<b>Intersection Summary</b>												
Control Type: Unsignalized												
Intersection Capacity Utilization 63.3%						ICU Level of Service B						
Analysis Period (min) 15												

HCM 2010 TWSC  
 22: Estero Blvd/San Carlos Blvd & Fifth St

Intersection												
Int Delay, s/veh	10.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗			↗	↖	↖			↗	↗
Traffic Vol, veh/h	0	0	122	0	0	278	89	748	1	0	514	188
Future Vol, veh/h	0	0	122	0	0	318	89	748	1	0	561	188
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	Yield
Storage Length	-	-	0	-	-	0	100	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	4	4	4	2	2	2	5	5	5	3	3	3
Mvmt Flow	0	0	133	0	0	346	97	813	1	0	610	204
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	610	-	-	814	610	0	0	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.24	-	-	6.22	4.15	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.336	-	-	3.318	2.245	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	491	0	0	378	954	-	-	0	-	-
Stage 1	0	0	-	0	0	-	-	-	-	0	-	-
Stage 2	0	0	-	0	0	-	-	-	-	0	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	491	-	-	378	954	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	15			60.8			1			0		
HCM LOS	C			F								
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBT	SBR					
Capacity (veh/h)	954	-	-	491	378	-	-					
HCM Lane V/C Ratio	0.101	-	-	0.27	0.914	-	-					
HCM Control Delay (s)	9.2	-	-	15	60.8	-	-					
HCM Lane LOS	A	-	-	C	F	-	-					
HCM 95th %tile Q(veh)	0.3	-	-	1.1	9.5	-	-					

Lanes, Volumes, Timings  
 9: Estero Blvd & Crescent St



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	80	537	817	46	48	22
Future Volume (vph)	127	537	817	68	66	22
Satd. Flow (prot)	1736	1827	1665	0	1735	0
Flt Permitted	0.950				0.964	
Satd. Flow (perm)	1736	1827	1665	0	1735	0
Lane Group Flow (vph)	138	584	962	0	96	0
Sign Control		Free	Free		Stop	

Intersection Summary

Control Type: Unsignalized  
 Intersection Capacity Utilization 64.2%      ICU Level of Service C  
 Analysis Period (min) 15

HCM 2010 TWSC  
 9: Estero Blvd & Crescent St

**Intersection**

Int Delay, s/veh 2.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↗	↘		↗	
Traffic Vol, veh/h	80	537	817	46	48	22
Future Vol, veh/h	127	537	817	68	66	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	4	4	13	13	2	2
Mvmt Flow	138	584	888	74	72	24

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	962	0	1785
Stage 1	-	-	925
Stage 2	-	-	860
Critical Hdwy	4.14	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.236	-	3.518
Pot Cap-1 Maneuver	707	-	90
Stage 1	-	-	386
Stage 2	-	-	414
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	707	-	72
Mov Cap-2 Maneuver	-	-	196
Stage 1	-	-	386
Stage 2	-	-	333

Approach	EB	WB	SB
HCM Control Delay, s	2.2	0	33.8
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	707	-	-	-	218
HCM Lane V/C Ratio	0.195	-	-	-	0.439
HCM Control Delay (s)	11.3	-	-	-	33.8
HCM Lane LOS	B	-	-	-	D
HCM 95th %tile Q(veh)	0.7	-	-	-	2.1

Lanes, Volumes, Timings  
6: Crescent St & Fifth St



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	1	7	61	56	42	202
Future Volume (vph)	4	25	62	56	46	202
Satd. Flow (prot)	1173	0	0	1832	1610	0
Flt Permitted	0.994			0.974		
Satd. Flow (perm)	1173	0	0	1832	1610	0
Lane Group Flow (vph)	31	0	0	128	270	0
Sign Control	Stop			Stop	Stop	

Intersection Summary	
Control Type: Unsignalized	
Intersection Capacity Utilization 34.3%	ICU Level of Service A
Analysis Period (min) 15	

HCM 2010 AWSC  
6: Crescent St & Fifth St

Intersection	
Intersection Delay, s/veh	8.1
Intersection LOS	A

Movement	EBU	EBL	EBR	NBU	NBL	NBT	SBU	SBT	SBR
Lane Configurations		Y				4		4	
Traffic Vol, veh/h	0	1	7	0	61	56	0	42	202
Future Vol, veh/h	0	4	25	0	62	56	0	46	202
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	42	42	2	1	1	2	5	5
Mvmt Flow	0	4	27	0	67	61	0	50	220
Number of Lanes	0	1	0	0	0	1	0	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	8.1	8.1	8.1
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	53%	14%	0%
Vol Thru, %	47%	0%	19%
Vol Right, %	0%	86%	81%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	118	29	248
LT Vol	62	4	0
Through Vol	56	0	46
RT Vol	0	25	202
Lane Flow Rate	128	32	270
Geometry Grp	1	1	1
Degree of Util (X)	0.152	0.043	0.273
Departure Headway (Hd)	4.28	4.928	3.647
Convergence, Y/N	Yes	Yes	Yes
Cap	831	731	973
Service Time	2.34	2.928	1.71
HCM Lane V/C Ratio	0.154	0.044	0.277
HCM Control Delay	8.1	8.1	8.1
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.5	0.1	1.1

Lanes, Volumes, Timings  
 5: Crescent St & Access 1 Inbound



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations				↕	↕	
Traffic Volume (vph)	0	0	0	126	70	0
Future Volume (vph)	0	0	68	127	88	4
Satd. Flow (prot)	0	0	0	1831	1853	0
Flt Permitted				0.983		
Satd. Flow (perm)	0	0	0	1831	1853	0
Lane Group Flow (vph)	0	0	0	212	100	0
Sign Control	Stop			Free	Free	

**Intersection Summary**  
 Control Type: Unsignalized  
 Intersection Capacity Utilization 10.0%      ICU Level of Service A  
 Analysis Period (min) 15

Lanes, Volumes, Timings  
 11: Fifth St & Access 1 Outbound

						
Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	0	0	8	0	0	278
Future Volume (vph)	39	21	8	0	0	279
Satd. Flow (prot)	1718	0	1863	0	0	1863
Flt Permitted	0.969					
Satd. Flow (perm)	1718	0	1863	0	0	1863
Lane Group Flow (vph)	65	0	9	0	0	303
Sign Control	Stop		Free			Free

**Intersection Summary**  
 Control Type: Unsignalized  
 Intersection Capacity Utilization 24.6%      ICU Level of Service A  
 Analysis Period (min) 15

HCM 2010 TWSC  
 11: Fifth St & Access 1 Outbound

**Intersection**

Int Delay, s/veh 1.7

Movement	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations	Y		↑			↑
Traffic Vol, veh/h	0	0	8	0	0	278
Future Vol, veh/h	39	21	8	0	0	279
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	42	23	9	0	0	303

Major/Minor	Minor1	Minor2	Major1	Major2
Conflicting Flow All	312	9	0	-
Stage 1	9	-	-	-
Stage 2	303	-	-	-
Critical Hdwy	6.42	6.22	-	-
Critical Hdwy Stg 1	5.42	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-
Follow-up Hdwy	3.518	3.318	-	-
Pot Cap-1 Maneuver	681	1073	-	0
Stage 1	1014	-	-	0
Stage 2	749	-	-	0
Platoon blocked, %			-	-
Mov Cap-1 Maneuver	681	1073	-	-
Mov Cap-2 Maneuver	681	-	-	-
Stage 1	1014	-	-	-
Stage 2	749	-	-	-

Approach	NW	NE	SW
HCM Control Delay, s	10	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NETNWLn1	SWT
Capacity (veh/h)	- 781	-
HCM Lane V/C Ratio	- 0.084	-
HCM Control Delay (s)	- 10	-
HCM Lane LOS	- B	-
HCM 95th %tile Q(veh)	- 0.3	-

Lanes, Volumes, Timings  
 13: Fifth St & Access 2



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↘	
Traffic Volume (vph)	0	8	278	0	0	0
Future Volume (vph)	0	8	317	1	0	1
Satd. Flow (prot)	0	1863	1863	0	1611	0
Flt Permitted						
Satd. Flow (perm)	0	1863	1863	0	1611	0
Lane Group Flow (vph)	0	9	346	0	1	0
Sign Control		Free	Free		Stop	

Intersection Summary	
Control Type: Unsignalized	
Intersection Capacity Utilization 24.6%	ICU Level of Service A
Analysis Period (min) 15	

HCM 2010 TWSC  
13: Fifth St & Access 2

**Intersection**

Int Delay, s/veh 0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↑	
Traffic Vol, veh/h	0	8	278	0	0	0
Future Vol, veh/h	0	8	317	1	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	9	345	1	0	1

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	346	0	354
Stage 1	-	-	345
Stage 2	-	-	9
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1213	-	644
Stage 1	-	-	717
Stage 2	-	-	1014
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1213	-	644
Mov Cap-2 Maneuver	-	-	644
Stage 1	-	-	717
Stage 2	-	-	1014

Approach	EB	WB	SB
HCM Control Delay, s	0	0	10.2
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1213	-	-	-	698
HCM Lane V/C Ratio	-	-	-	-	0.002
HCM Control Delay (s)	0	-	-	-	10.2
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0