



Traffic Impact Statement

Baumgarten MPUD (fka Pelican Nursery MPUD) Planned Unit Development (PUD) Rezone

Collier County, FL
08/10/2018

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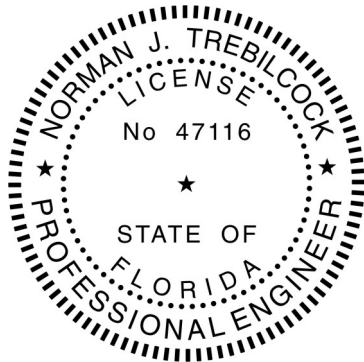
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Collier County Transportation Methodology Fee – \$500.00

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Statement of Certification

I certify that this Traffic Impact Statement has been prepared by me or under my immediate supervision and that I have experience and training in the field of Traffic and Transportation Engineering.



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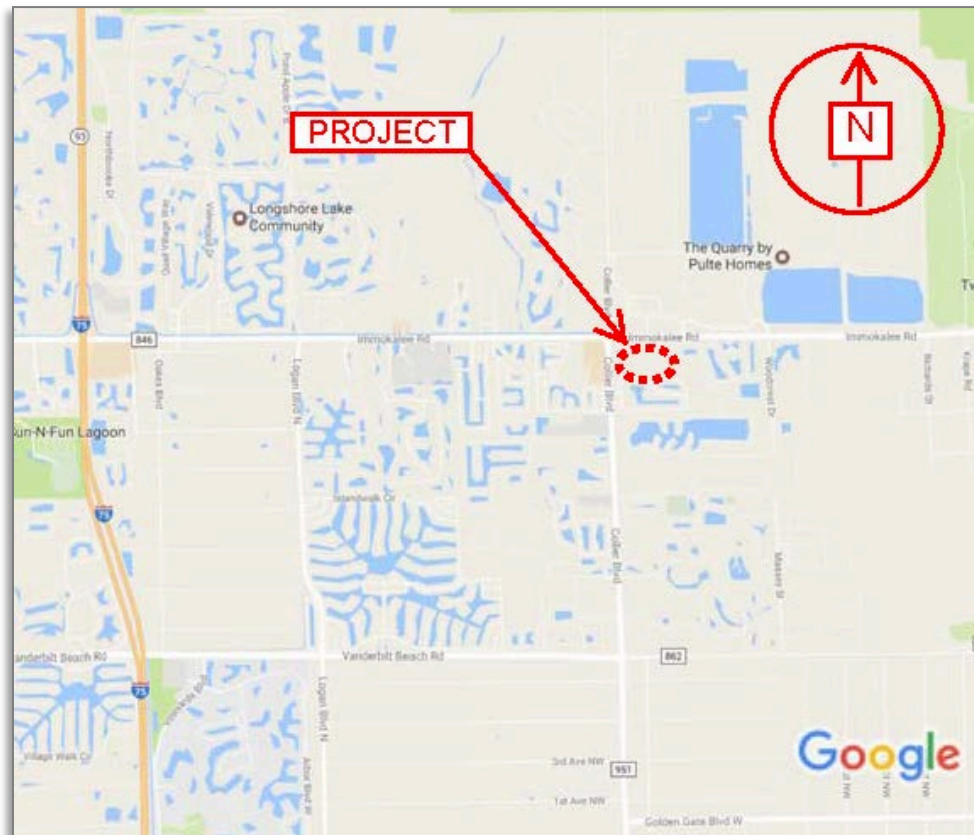
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Project Description

The Baumgarten fka Pelican Nursery Property project is an existing nursery zoned A – Agricultural. The subject parcels have a total gross area of approximately 55.47 acres.

The project site is located in north Naples, in the southeast quadrant of the Immokalee Road (CR 846) and Collier Boulevard (CR 951) intersection, in Section 26, Township 48 South, Range 26 East, in Collier County, Florida. Refer to **Figure 1 – Project Location Map**.

Figure 1 – Project Location Map



The Baumgarten project proposes to rezone the existing parcels to allow for commercial and residential development. The TIS will use the highest of the three potential development scenarios: **Scenario 1** consists of 112 dwelling unit (du) apartments, 30,000 square feet (sf) of general office, 147,000 sf shopping center, 6,000 sf (20 pumps) convenience market with gasoline pumps, 135,000 sf home improvement superstore and 7,000 sf fast-food restaurant with drive through window. **Scenario 2** considers 300 dwelling unit (du) apartments, 140 rooms hotel, 147,000 sf shopping center, 6,000 sf (20 pumps) convenience market with gasoline pumps and a 7,000 sf fast-food restaurant with drive through window. **Scenario 3** proposes 200 du apartments, 200 du condominium/townhouses, 150,000 sf shopping center, 6,000 sf (20 pumps) convenience market with gasoline pumps, a 7,000 sf fast-food

restaurant with drive through window, 45,000 square feet of medical office, and 20,000 sf restaurant. The proposed master site plans are illustrated in **Appendix A: Project Master Site Plans**.

For purposes of this evaluation, the project build-out year is assumed to be consistent with the Collier County 2023 planning horizon.

The project provides a highest and best use scenario with respect to the project's proposed trip generation. A trip generation comparison is provided for the Land Use Code (LUC) 960 – Super Convenience Market/Gas Station between two variables: the store Gross Floor Area (GFA) and the number of Fueling Positions (fp). For the LUC 960 – fueling positions is the conservative estimate of the two trip generations and it is used for the purposes of this report.

The trip generation associated with the hotel land use is conservatively calculated by utilizing the ITE occupied room variable.

The ITE 10th Edition Trip Generation Manual now classifies multifamily dwelling units as low, mid or high-rise buildings and no longer classifies them as apartments or condominium/town home. The proposed dwelling units are depicted as Multifamily (Low-Rise), conservatively, based on a highest and best use for multifamily development. The master concept plans refer to the residential developments as apartment and condominium, as applicable, and the development program delineates both. Trip generation for Scenario 3, however, will calculate the trip generation for this land use as a total of the apartment and condominium dwelling units.

The associated common recreation amenities are considered passive incidental to the residential development and are not included in the trip generation analysis. The potential development program scenarios are illustrated in **Table 1**.

Table 1
Development Program – Scenarios

ITE Land Use	ITE Land Use Code	Scenario 1 Total Size	Scenario 2 Total Size	Scenario 3 Total Size
Multifamily (Low Rise)⁽¹⁾	220	112 du	300 du	200 du
Multifamily (Low Rise)⁽²⁾	220	N/A	N/A	200 du
Hotel	310	N/A	140 or	N/A
General Office	710	30,000 sf	N/A	N/A
Medical Office	720	N/A	N/A	45,000 sf
Shopping Center	820	147,000 sf	147,000 sf	150,000 sf
Home Improvement Superstore	862	135,000 sf	N/A	N/A
Restaurant	932	N/A	N/A	20,000 sf
Fast-Food Restaurant with Drive-Through Window	934	7,000 sf	7,000 sf	7,000 sf
Super Convenience Market/Gas Station	960	6,000 sf, 20 fp	6,000 sf, 20 fp	6,000 sf, 20 fp

Note(s): N/A = not applicable; du = dwelling unit; sf = square feet; fp = fueling positions, or = occupied rooms.

⁽¹⁾Apartments

⁽²⁾Condominium

A methodology meeting was held with the Collier County Transportation Planning staff on April 20, 2017, via email (ref. **Appendix B: Initial Meeting Checklist (Methodology Meeting)**).

Connections to the subject site are proposed to be provided as follows:

- **Collier Boulevard (CR 951):** Proposed full access connection onto CR 951.
- **Immokalee Road:** West access – proposed new right-in/right-out access onto eastbound Immokalee Road. East access – existing directional left-in/right-in/right-out access onto eastbound Immokalee Road to remain.

Trip Generation

The project's site trip generation is based on the Institute of Transportation Engineers (ITE) Trip Generation Manual, 10th Edition. The software program OTISS (Online Traffic Impact Study Software, most current version is used to create the raw unadjusted trip generation for the project. The ITE equations and/or rates are used for the trip generation calculations, as applicable. The ITE – OTISS trip generation calculation worksheets are provided in **Appendix C: Trip Generation Calculations ITE 10th Edition**.

The **internal capture** accounts for a reduction in external traffic because of the interaction between the multiple land uses in a site. ITE guidelines used for the calculation of internal capture follow the same recommended procedure presented in the NCHRP Report 684: Enhancing Internal Trip Capture Estimation for Mixed-Use Developments.

One of the ITE premises in estimating the internal capture traffic illustrates that the number of trips from a land use within a mixed-use development to another land use within the same development (an internal trip) is a function of the size of the “receiving” land use and the number of trips it attracts, as well as the size of the “originating” land use and the number of trips it sends. The number of trips between a particular pair of internal land uses is limited to the smaller of these two values (ITE procedure of balancing internal trips in a mixed-use development).

For the purposes of this analysis and following Collier County TIS Guidelines recommendations, the overall internal capture rate does not exceed 20%.

The **pass-by trips** account for traffic that is already on the external roadway network and stops at the project on the way to a primary trip destination. It should be noted that the driveway volumes are not reduced as a result of the pass-by reduction, only the traffic added to the surrounding streets and intersections. As such, pass-by trips are not deducted for operational turn lane analysis (all external traffic is accounted for).

Consistent with Collier County TIS Guidelines and Procedures, fast food restaurants with drive-through windows and gasoline/service stations with convenience market are allowed maximum pass-by traffic of 50% of the project’s external trip generation potential. In addition, the county TIS Guidelines recommends that shopping center pass-by rates should not exceed 25% for the peak hour and the daily capture rates to be assumed 10% lower than the peak hour capture rate. Furthermore, the High Turnover Sit-Down Restaurant pass-by rate is limited to 40% per county guidelines.

This analysis calculates LUC 934 and LUC 960 pass-by daily rates at 40% and AM and PM peak hour rates at 50%. Shopping center and home improvement superstore daily pass-by trips are calculated at 15% of the gross traffic with AM and PM peak hour at 25% of the gross trips. The High Turnover Sit-Down Restaurant LUC 932 pass-by daily rates utilized are 30% and AM and PM peak hour rates at 40%.

Table 2A
Trip Generation – Scenario 1 – Average Weekday

Development Scenario 1	24 Hour Two-Way Volume	AM Peak Hour			PM Peak Hour		
		Enter	Exit	Total	Enter	Exit	Total
Traffic							
Unadjusted	21,006	744	644	1,388	897	930	1,827
Internal Capture	(1,736)⁽¹⁾	(58)	(58)	(116)	(131)	(131)	(262)
External	19,270	686	586	1,272	766	799	1,565
Pass-by	(4,503)	(255)	(236)	(491)	(259)	(260)	(519)
Net External	14,767	431	350	781	507	539	1,046

Note(s): ⁽¹⁾ Daily internal capture rates are not available in the 3rd Edition Trip Generation Handbook; AM rates are used to calculate daily internal capture.

Table 2B
Trip Generation – Scenario 2 – Average Weekday

Development Scenario 2	24 Hour Two-Way Volume	AM Peak Hour			PM Peak Hour		
		Enter	Exit	Total	Enter	Exit	Total
Traffic							
Unadjusted	19,659	645	645	1,290	845	814	1,659
Internal Capture	(2,238)⁽¹⁾	(74)	(74)	(148)	(147)	(147)	(294)⁽²⁾
External	17,421	571	571	1,142	698	667	1,365
Pass-by	(3,763)	(214)	(213)	(427)	(228)	(223)	(451)
Net External	13,658	357	358	715	470	444	914

Note(s): ⁽¹⁾ Daily internal capture rates are not available in the 3rd Edition Trip Generation Handbook; AM rates are used to calculate daily internal capture.

⁽²⁾ Adjusted not to exceed 20% maximum internal capture.

Table 2C
Trip Generation – Scenario 3 – Average Weekday

Development Scenario 3	24 Hour Two-Way Volume	AM Peak Hour			PM Peak Hour		
		Enter	Exit	Total	Enter	Exit	Total
Traffic							
Unadjusted	22,696	801	756	1,557	993	982	1,975
Internal Capture	(3,010)⁽¹⁾	(87)	(87)	(174)	(147)	(147)	(294)
External	19,686	714	669	1,383	846	835	1,681
Pass-by	(4,377)	(259)	(247)	(506)	(272)	(254)	(526)
Net External	15,309	455	422	877	574	581	1,155

Note(s): ⁽¹⁾ Daily internal capture rates are not available in the 3rd Edition Trip Generation Handbook; AM rates are used to calculate daily internal capture.

As illustrated by **Table 2A**, **2B** and **Table 2C**, the net external traffic of **Scenario 3** is greater when compared with the other two scenarios; therefore, the trip generation for **Scenario 3** is utilized for the analysis of this report.

In agreement with the Collier County Traffic Impact Study (TIS) guidelines, significantly impacted roadways are identified based on the proposed project highest peak hour trip generation (net external traffic) and consistent with the peak hour of the adjacent street traffic. Based on the information contained in Collier County 2017 Annual Update and Inventory Report (AUIR), the peak hour for adjacent roadway network is PM.

For the purpose of this TIS, the surrounding roadway network link concurrency analysis is analyzed based on projected PM peak hour net external traffic generated by the project.

The site operational analysis reflects projected AM and PM peak hour external traffic generated by the project.

Trip Distribution and Assignment

The traffic generated by the development was assigned to the adjacent roadways using the knowledge of the area and as coordinated with Collier County Transportation Planning staff.

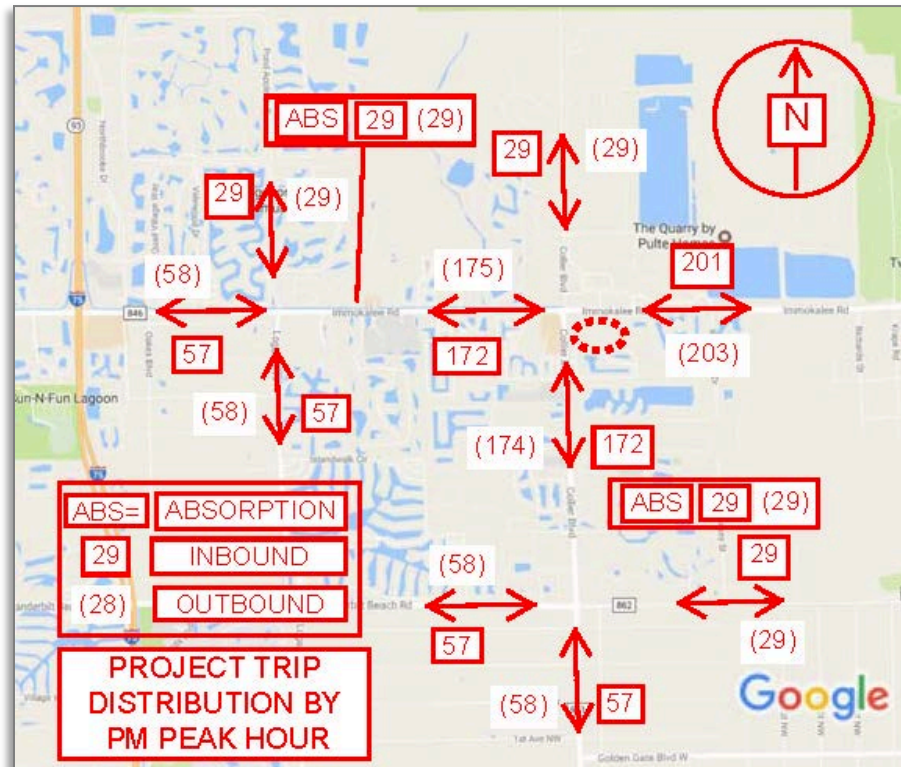
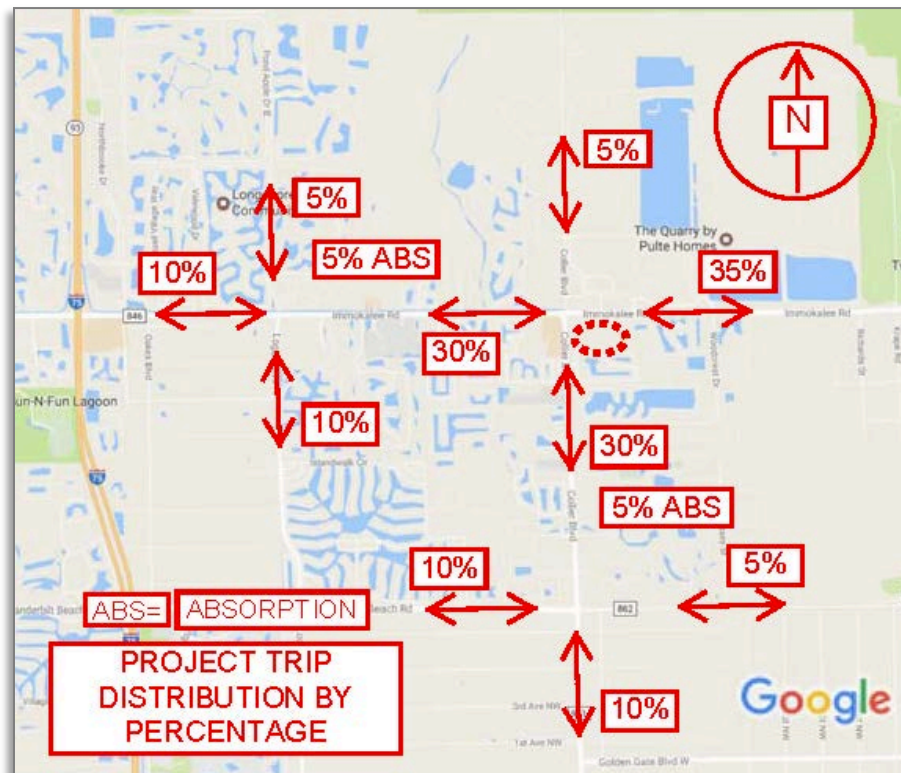
The site-generated trip distribution is shown in **Table 3, Project Traffic Distribution for Peak Hour** and is graphically depicted in **Figure 2 – Project Distribution by Percentage and by PM Peak Hour**.

Table 3
Project Traffic Distribution for Peak Hour

Roadway Link	Collier County Link No.	Roadway Link Location	Distribution of Project Traffic	PM Peak Hour Project Traffic Volume	
				Enter	Exit
Immokalee Rd.	44.0	East of Collier Blvd.	35%	WB – 201	<u>EB – 203</u>
Immokalee Rd.	43.2	Logan Blvd. to Collier Blvd.	30%	<u>EB – 172</u>	WB – 175
Immokalee Rd.	43.1	I-75 to Logan Blvd.	10%	<u>EB – 57</u>	WB – 58
Collier Blvd.	N/A ¹	North of Immokalee Rd.	5%	SB – 29	NB – 29
Collier Blvd.	30.1	Immokalee Rd. to Vanderbilt Beach Rd.	30%	<u>NB – 172</u>	SB – 174
Collier Blvd.	30.2	Vanderbilt Beach Golden Gate Blvd.	10%	NB – 57	<u>SB – 58</u>
Vanderbilt Beach Rd.	N/A ¹	East of Collier Blvd.	5%	WB – 29	EB – 29
Vanderbilt Beach Rd.	112.0	Logan Blvd. to Collier Blvd.	10%	<u>EB – 57</u>	WB – 58
Logan Blvd.	N/A ¹	North of Immokalee Rd.	5%	SB – 29	NB – 29
Logan Blvd.	50.0	Immokalee Rd. to Vanderbilt Beach Rd.	10%	<u>NB – 57</u>	SB – 58

Note(s): ⁽¹⁾ Not a Collier County Monitored roadway.

Figure 2 – Project Distribution by Percentage and by PM Peak Hour



Background Traffic

Average background traffic growth rates were estimated for the segments of the roadway network in the study area using the Collier County Transportation Planning Staff guidance of a minimum 2% growth rate, or the historical growth rate from annual traffic counts (estimated from 2008 through 2017), whichever is greater. Another way to derive the background traffic is to use the 2017 AUIR volume plus the trip bank volume. **Table 4, Background Traffic without Project**, illustrates the application of projected growth rates to generate the projected background (without project) peak hour peak direction traffic volume for the future horizon year 2023.

Table 4
Background Traffic without Project (2017 - 2023)

Roadway Link	CC AUIR Link ID #	Roadway Link Location	2017 AUIR Pk Hr, Pk Dir Background Traffic Volume (trips/hr)	Projected Traffic Annual Growth Rate (%/yr)*	Growth Factor	2023 Projected Pk Hr, Peak Dir Background Traffic Volume w/out Project (trips/hr) Growth Factor**	Trip Bank	2023 Projected Pk Hr, Peak Dir Background Traffic Volume w/out Project (trips/hr) Trip Bank***
Immokalee Rd.	44.0	East of Collier Blvd.	1,620	2.00%	1.1262	1,825	547	<u>2,167</u>
Immokalee Rd.	43.2	Logan Blvd. to Collier Blvd.	1,980	3.93%	1.2602	2,496	585	<u>2,565</u>
Immokalee Rd.	43.1	I-75 to Logan Blvd.	2,458	3.52%	1.2307	<u>3,026</u>	345	2,803
Collier Blvd.	30.1	Immokalee Rd. to Vanderbilt Beach Rd.	1,520	3.45%	1.2257	1,864	447	<u>1,967</u>
Collier Blvd.	30.2	Vanderbilt Beach Golden Gate Blvd.	1,220	2.0%	1.1262	<u>1,374</u>	86	1,306
Vanderbilt Beach Rd.	112.0	Logan Blvd. to Collier Blvd.	1,530	4.0%	1.2653	<u>1,936</u>	262	1,792
Logan Blvd.	50.0	Immokalee Rd. to Vanderbilt Beach Rd.	560	4.0%	1.2653	<u>709</u>	30	590

Note(s): *Annual Growth Rate - from 2017 AUIR, 2% minimum.

**Growth Factor = $(1 + \text{Annual Growth Rate})^6$. 2023 Projected Volume = 2017 AUIR Volume x Growth Factor.

***2023 Projected Volume = 2017 AUIR Volume + Trip Bank.

The projected 2023 Peak Hour – Peak Direction Background Traffic is the greater of the Growth Factor or Trip Bank calculation, which is underlined and **bold** as applicable.

Existing and Future Roadway Network

The existing roadway conditions are extracted from the 2017 Annual Update and Inventory Report (AUIR) and the project roadway conditions are based on the current Collier County 5-Year Work Program. Roadway improvements that are currently under construction or are scheduled to be constructed within the five year Transportation Improvement Plan (TIP) or Capital Improvement program (CIP) are considered to be committed improvements. As no such improvements were identified in the Collier County 2017 AUIR, the evaluated roadways are anticipated to remain as such through project build-out. The existing and future roadway conditions are illustrated in **Table 5, Existing and Future Roadway Conditions**.

Table 5
Existing and Future Roadway Conditions

Roadway Link	CC AUIR Link ID #	Roadway Link Location	Exist Roadway	Min. Standard LOS	Exist Peak Dir, Peak Hr Capacity Volume	Future Project Build out Roadway
Immokalee Rd.	44.0	East of Collier Blvd.	6D	E	3,300 (EB)	6D
Immokalee Rd.	43.2	Logan Blvd. to Collier Blvd.	6D	E	3,200 (EB)	6D
Immokalee Rd.	43.1	I-75 to Logan Blvd.	6D/8D	E	3,500 (EB)	6D/8D
Collier Blvd.	30.1	Immokalee Rd. to Vanderbilt Beach Rd.	6D	E	3,000 (NB)	6D
Collier Blvd.	30.2	Vanderbilt Beach Golden Gate Blvd.	6D	E	3,000 (SB)	6D
Vanderbilt Beach Rd.	112.0	Logan Blvd. to Collier Blvd.	6D	E	3,000 (EB)	6D
Logan Blvd. N	50.0	Immokalee Rd. to Vanderbilt Beach Rd.	2U	D	1,000 (NB)	2U

Note(s): 2U = 2-lane undivided roadway; 4D, 6D, 8D = 4-lane, 6-lane, 8-lane divided roadway, respectively; LOS = Level of Service.

Project Impacts to Area Roadway Network-Link Analysis

The Collier County Transportation Planning Services developed Level of Service (LOS) volumes for the roadway links impacted by the project, which were evaluated to determine the project impacts to the area roadway network in the future. The Collier County Transportation Planning Services guidelines have determined that a project will be considered to have a significant and adverse impact if **both** the percentage volume capacity exceeds 2% of the capacity for the link directly accessed by the project and for the link adjacent to the link directly accessed by the project; 3% for other subsequent links **and** if the roadway is projected to operate below the adopted LOS standard.

Based on these criteria, this project's impacts are significant on Immokalee Road east and west of Collier Boulevard, significant on Collier Boulevard between Immokalee Road and Vanderbilt Beach Road, and significant on Logan Boulevard between Immokalee Road and Vanderbilt Beach Road. The estimated traffic does not create any significant impacts on the other analyzed roadway segments of the study network.

None of the analyzed links are projected to exceed the adopted LOS standard with or without the project at 2023 future build-out conditions. **Table 6, Roadway Link Level of Service** illustrates the LOS impacts of the project on the roadway network closest to the project.

Table 6
Roadway Link Level of Service (LOS) – With Project in the Year 2023

Roadway Link	CC AUIR Link ID #	Roadway Link Location	2017 Peak Dir, Peak Hr Capacity Volume	Roadway Link, Peak Dir, Peak Hr (Project Vol Added)*	2023 Peak Dir, Peak Hr Volume w/Project **	% Vol Capacity Impact By Project	Min LOS exceeded without Project? Yes/No	Min LOS exceeded with Project? Yes/No
Immokalee Rd.	44.0	East of Collier Blvd.	3,300 (EB)	EB – 203	2,370	6.2%	No	No
Immokalee Rd.	43.2	Logan Blvd. to Collier Blvd.	3,200 (EB)	EB – 172	2,737	5.4%	No	No
Immokalee Rd.	43.1	I-75 to Logan Blvd.	3,500 (EB)	EB – 57	3,083	1.6%	No	No
Collier Blvd.	30.1	Immokalee Rd. to Vanderbilt Beach Rd.	3,000 (NB)	NB – 172	2,139	5.7%	No	No
Collier Blvd.	30.2	Vanderbilt Beach Golden Gate Blvd.	3,000 (SB)	SB – 58	1,432	1.9%	No	No
Vanderbilt Beach Rd.	112.0	Logan Blvd. to Collier Blvd.	3,000 (EB)	EB – 57	1,993	1.9%	No	No
Logan Blvd. N	50.0	Immokalee Rd. to Vanderbilt Beach Rd.	1,000 (NB)	NB – 57	766	5.7%	No	No

Note(s): *N/A= not applicable; estimated no net new traffic generated by proposed PUDA conditions.

2023 Projected Volume= 2023 background (refer to **Table 4) + Project Volume added.

Site Access Turn Lane Analysis

Connections to the subject site are proposed to be provided as follows:

- **Collier Boulevard (CR 951):** Proposed full access connection onto Collier Boulevard. This proposed full median opening allows a reasonable solution to alleviate traffic congestion at this location.
- **Immokalee Road:** West access – new right-in/right-out access onto eastbound Immokalee Road proposed. East access – existing directional left-in/right-in/right-out access onto eastbound Immokalee Road to remain.

For details see **Appendix A: Approved Master Site Plans.**

Immokalee Road (CR 846) is a 6-lane urban divided arterial under Collier County jurisdiction, and has a posted legal speed of 45 mph in the vicinity of the project. This is currently a curb and gutter facility at this location. As depicted in the Manual of Uniform Minimum Standards (“MUMS”) for Design, Construction and Maintenance for Streets and Highways (commonly known as the “Florida Greenbook”), Table 3-15, curb and gutter is not to be used on facilities with design speed greater than 45 mph. However based on the County Staff’s concerns in regards to counted higher speeds, a design speed 5 mph greater than the posted speed limit is chosen to compensate for a slight overrunning of the speed limit by some drivers. Based on FDOT Index 301, design speed of 50 mph – urban conditions – the minimum turn lane length is 240 feet (which includes a 50 foot taper) plus required queue.

Collier Boulevard (CR 951) is a 6-lane urban divided arterial under Collier County jurisdiction, and has a posted legal speed of 45 mph in the vicinity of the project. Based on similar justification illustrated for Immokalee Road, a design speed 5 mph greater than the posted speed limit is chosen to compensate for a slight overrunning of the speed limit by some drivers. Based on a design speed of 50 mph, the minimum turn lane length is 240 feet (which includes a 50 foot taper) plus required queue.

Project access is evaluated for turn lane warrants based on the Collier County Right-of-way Manual: (a) two-lane roadways – 40vph for right-turn lane/20vph for left-turn lane; and (b) multi-lane divided roadways – right turn lanes shall always be provided; and (c) when new median openings are permitted, they shall always include left-turn lanes.

Turn lane lengths required at build-out conditions are analyzed based on the number of turning vehicles in an average one-minute period for right-turning movements, and two-minute period for left-turning movements, within the peak hour traffic. The minimum queue length is 25 feet and the queue/vehicle is 25 feet.

Site access analysis is evaluated based on the most intensive development scenario from a traffic perspective (Scenario 3).

The estimated project trips at driveway locations are illustrated in **Appendix D: Project Turning Movements Exhibits.**

Immokalee Road – West Site Access

A dedicated eastbound right-turn lane is warranted as the project meets the multi-lane criteria. The proposed project is expected to generate 72vph and 84vph right-turning movements during the AM and PM peak hour, respectively. At the minimum, the turn lane should be 290 feet long (which includes a minimum of 50 feet of storage).

Immokalee Road – East Site Access

A dedicated eastbound right-turn lane is warranted as the project meets the multi-lane criteria. There is an existing right-turn lane approximately 240 feet long. The proposed project is expected to generate 71vph and 85vph right-turning movements during the AM and PM peak hour, respectively. At the minimum, the turn lane should be 290 feet long (which includes a minimum of 50 feet of storage). As such, the existing right-turn lane would need to be extended a minimum of 50 feet to accommodate projected traffic at this location.

A dedicated westbound left-turn lane is warranted as the project meets the multi-lane criteria. There is an existing left-turn lane approximately 360 feet long. The proposed project is expected to generate 250vph and 296vph left-turning movements during the AM and PM peak hour, respectively. At the minimum, the turn lane should be 490 feet long (which includes a minimum of 250 feet of storage). As such, the existing left-turn lane would need to be extended a minimum of 130 feet to accommodate projected traffic at this location.

Collier Boulevard – Site Access

A dedicated northbound right-turn lane is warranted as the project meets the multi-lane criteria. The proposed project is expected to generate 214vph and 254vph right-turning movements during the AM and PM peak hour, respectively. At the minimum, the turn lane should be 365 feet long (which includes a minimum of 125 feet of storage).

A dedicated southbound left-turn lane is warranted as the project meets the multi-lane criteria. The proposed project is expected to generate 107vph and 127vph left-turning movements during the AM and PM peak hour, respectively. At the minimum, the turn lane should be 365 feet long (which includes a minimum of 125 feet of storage).

A detailed evaluation of applicable access points – turn lane requirements will be performed at the time of site development permitting/platting when more specific development parameters will be made available.

Eastbound U-turn/Left-turn – Immokalee Road and Bellaire Bay Drive Intersection

There is an existing eastbound U-turn/left-turn lane approximately 340 feet long serving this intersection. The proposed project is expected to generate 134vph and 167vph U-turning movements during the AM and PM peak hour, respectively. At the minimum, the turn lane should be 390 feet long (which includes a minimum of 150 feet of storage). As such, the existing left-turn lane would need to be extended a minimum of 50 feet to accommodate projected traffic at this location.

Intersection Operational Analyses

Intersection Traffic Volumes

To support the traffic analysis, intersection turning movement counts were conducted on January 31 and February 1, 2018, at the following locations: Collier Blvd. and Immokalee Rd. intersection, Collier Blvd. and Pebblebrooke Center driveway intersection and Collier Blvd. and Tuscany Cove Dr. intersection – Southbound Left/U turns only. AM and PM peak period turning movement data were collected in 15-minute intervals from 7-9 AM, and from 4-6 PM.

A summary of the intersection turning movement counts is provided in **Appendix E: Raw Intersections Turning Movement Counts**.

Traffic count volumes collected are adjusted for peak season conditions by using the peak season conversion factor (PSCF) as illustrated in FDOT 2016 Peak Season Factor Category Report. For this report the PSCF utilized is 1.00 as shown in **Appendix F: FDOT 2016 Peak Season Factor Category Report – Excerpt**.

It is noted that based on the two day AM and PM peak hour raw traffic count data, the most intense traffic data is conservatively utilized versus the average of the two, as follow:

- Collier Blvd. & Immokalee Rd Intersection – AM peak hour – 7.00-8.00AM on Thu 02/01/2018 (intersection hourly traffic = 5,292vph); PM peak hour – 5.00-6.00PM on Wed 01/31/2018 (intersection hourly traffic = 5,649vph);
- Collier Blvd. & Pebblebrooke Center Drive – AM peak hour – 8.00-9.00AM on Wed 01/31/2018 (intersection hourly traffic = 301vph); PM peak hour – 4.45-5.45PM on Wed 01/31/2018 (intersection hourly traffic = 632vph);
- Collier Blvd. & Tuscany Cove Drive – Southbound Left/U turns only – AM peak hour – 7.45-8.45AM on Thu 02/01/2018 (hourly traffic = 48vph); PM peak hour – 4.15-5.15PM on Thu 02/01/2018 (hourly traffic = 221vph);

Annual growth rates utilized to evaluate the analyzed intersections traffic for future 2023 conditions are considered as follows: 2% for through lanes and 1% for turn lanes.

Subject intersections are evaluated based on the calculated background traffic with the additional traffic estimated for PUD buildout conditions. The estimated overall traffic is shown in **Appendix G: Intersections Projected Traffic at Buildout Conditions**.

Collier Blvd. and Immokalee Rd. Intersection – Capacity and Quality/Level of Service (LOS)

As requested by Collier County Transportation staff the Collier Boulevard and Immokalee Road intersection is analyzed for capacity and quality/Level of Service (LOS) purposes.

The intersection lane configuration is illustrated in in **Appendix H: Collier Blvd. & Immokalee Rd. Intersection – Approved Signalization Plan**.

- North Approach – Two through lanes, one right turn lane and one left turn lane.
- South Approach – One through lane, two right turn lanes and three left turn lanes.
- East Approach – Three through lanes, one right turn lane and three left turn lanes.
- West Approach – Three through lanes, one right turn lane and two left turn lanes.

An assessment of the Level of Service (LOS) and volume to capacity ratio analysis of the subject intersection is conducted using Synchro Studio 9 (Trafficware Version 9). This software has the capability of utilizing the Highway Capacity Manual 2010 (HCM 2010) and HCM 2000 methodologies to analyze signalized and unsignalized intersections. In addition, Synchro implements the Intersection Capacity Utilization (ICU) 2003 method for determining intersection capacity. This method compares the current volume to the intersection's ultimate capacity.

The HCM control delay is used as the basis for determining LOS, ranging from LOS A to LOS F using the delay ranges for signalized intersections. According to HCM, the level of service criterion for intersections is shown in **Table 7**.

Table 7
Level of Service for Intersections

HCM-Based Level of Service and Delay Ranges		
Average Delay (seconds / vehicle)		LOS
Signalized Intersections	Unsignalized intersections	
< 10.0	< 10.0	A
> 10.0 to < 20.0	> 10.0 to < 15.0	B
> 20.0 to < 35.0	> 15.0 to < 25.0	C
> 35.0 to < 55.0	> 25.0 to < 35.0	D
> 55.0 to < 80.0	> 35.0 to < 50.0	E
> 80.0	> 50.0	F

Source: HCM 2010

Based on HCM guidelines, the general description of each LOS is as follows: LOS A – free flow; LOS B – stable flow with slight delays, LOS C – stable flow with acceptable delays, LOS D – approaching unstable flow with tolerable delay and unfavorable progression, LOS E – unstable flow with intolerable delay and poor progression to all movements, and LOS F – forced flow (congested and queues fail to clear) and poor progression to all movements.

The LOS for overall approach or intersection is determined solely by the control delay. In addition, if the volume-to-capacity (V/C) ratio for a lane group exceeds 1.0, LOS F is assigned to the individual lane group.

To support the signalized intersection analysis, the existing programmed signal timings (MaxTime Timing Sheet) were provided by Collier County Transportation staff. Based on our review, a 170 second cycle length is used for the AM and PM peak hour evaluations.

The HCS 2010 percent heavy vehicle is assumed the Design Hour Truck (DHT) – the percent of trucks expected to use the roadway segment during the design hour of the design year. Design Hour Truck is determined as half of T24 (annual 24-hour percentage of trucks). A 2% heavy vehicle factor is assumed for all movements for the purposes of this analysis.

The volume to capacity ratio (V/C), also referred to as degree of saturation, represents the sufficiency of an intersection to accommodate the vehicular demand. A V/C ratio less than 0.85 generally indicates that adequate capacity is available and vehicles are not expected to experience significant queues and delays. As the V/C ratio approaches 1.0, traffic flow may become unstable, and delay and queuing conditions may occur. Once the demand exceeds the capacity (a V/C ratio greater than 1.0), traffic flow is unstable and excessive delay and queuing is expected. Under these conditions vehicles may require more than one signal cycle to pass through the intersection (known as cycle failure). For design purposes, a V/C ratio between 0.85 and 0.95 is generally utilized for the peak hour of the horizon year. As such, each intersection movement is analyzed to ensure that the threshold value of V/C failure (1.0) is not exceeded.

The results of the traffic Synchro intersection analysis for AM and PM peak hour conditions are summarized in **Table 8**. Synchro intersection worksheets are provided in **Appendix I: Intersection Analyses – Synchro Studio 9 Printouts**.

Table 8
Collier Blvd. and Immokalee Rd. Intersection Traffic Analysis

Traffic Control Existing/Future – Signalized	2018 Background Traffic AM/PM Pk Hr	2023 Background Traffic AM/PM Pk Hr	2023 Background Traffic with Project AM/PM Pk Hr
Intersection LOS	C/D	C/D	D/D
Approach LOS Failure (LOS F)	No/No	No/No	No/No
V/C ratio > 1 for Movements	No/No	No/No	No/No

Collier Blvd. and Pebblebrooke Center/Project Access Intersection – Capacity and LOS

The Developer proposes a signalized full opening access which is analyzed for capacity and LOS purposes. The intersection lane configuration is illustrated as follow:

- North Approach - Three through lanes, one right turn lane and one left turn lanes.
- South Approach - Three through lanes, one right turn lane and one left turn lanes.
- East Approach – One shared through/left lane and one right turn lane.
- West Approach – One shared through/left lane and one right turn lane.

Consistent with signal timings provided for Immokalee Road and Collier Blvd intersection, a 170 second cycle length is used for the AM and PM peak hour analyses.

The results of the traffic Synchro intersection analysis for AM and PM peak hour conditions are summarized in **Table 9**. Synchro intersection worksheets are provided in **Appendix I: Intersection Analyses – Synchro Studio 9 Printouts**.

Table 9
Collier Blvd. and Pebblebrooke Center/Project Access Intersection Traffic Analysis

Traffic Control Existing – Unsignalized Future – Signalized	2023 Background Traffic with Project AM Pk Hr	2023 Background Traffic with Project PM Pk Hr
Intersection LOS	C	C
Approach LOS Failure (LOS F)	No	No
V/C ratio > 1 for Movements	No	No

Collier Blvd. and Tuscany Cove Dr. Intersection – Southbound U/Left Turn Lane Adequacy

The existing southbound left-turn lane servicing the Tuscany Cove Development is approximately 365 feet long (which includes 50 feet of taper), developed at maximum extent due to geometric constraints (existing directional left turn lane servicing the Pebblebrooke Center plaza, located to the north).

Based on the traffic counts information provided (current 2018 peak season conditions), the existing turn lane provides service for 48vph in the AM peak hour and 221vph in the PM peak hour. **Table 10** illustrates the projected 2023 PM peak hour background traffic volume.

Table 10
Background PM Peak Hour Traffic at Year 2018 – 2023

Movement	2018 Peak Season Background Traffic Volume (trips/hr)*	Projected Traffic Annual Growth Rate (%/yr)	Growth Factor**	2023 Peak Season Background Traffic Volume (trips/hr) **	2023 Peak Season Turn Lane Recommended Storage(feet)***
Southbound Left/U – turn Lane	221	1.00%	1.0510	233	200

Note(s): *Includes 175vph U-turns.

**Growth Factor = $(1 + \text{Annual Growth Rate})^5$. 2023 Projected Volume= 2018 AUIR Volume x Growth Factor.

***Based on 2-minute queue.

As such, at the minimum, the southbound left-turn lane should be 440 feet long (240 foot deceleration lane with taper and 200 feet storage) to accommodate projected traffic.

The proposed signalized full opening at the project access on Collier Blvd. would alleviate congestion. A full opening at Pebblebrooke Center driveway will provide a left-out for the currently 175vph U-turn movements.

As illustrated in the traffic counts data, the Tuscan Cove development generates 46 left turns in the peak hour (PM peak hour). To adequately accommodate future traffic at 2023 year conditions ($46 \times 1.0510 = 49$ trips), this turn lane should be 290 feet (240 foot deceleration lane with taper and 50 feet storage). As such, the existing turn lane will be satisfactory provided a signalized intersection at proposed project access is allowed.

Improvement Analysis

Based on the link analysis and trip distribution, this project's impacts are significant on Immokalee Road east and west of Collier Boulevard, significant on Collier Boulevard between Immokalee Road and Vanderbilt Beach Road, and significant on Logan Boulevard between Immokalee Road and Vanderbilt Beach Road. Projected traffic does not create any significant impacts on the other analyzed roadway segments of the study network.

None of the analyzed links are projected to exceed the adopted LOS standard with or without the project at 2023 future build-out conditions. There is adequate and sufficient roadway capacity to accommodate the proposed development without adversely affecting adjacent roadway network level of service.

Based upon the results of turn lane analysis performed within this report, turn lane improvements are recommended at the main project accesses. A detailed evaluation of applicable access points – turn lane requirements will be performed at the time of site development permitting/platting when more specific development parameters will be made available.

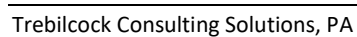
Based on the results of the Synchro analysis, Collier Boulevard and Immokalee Road intersection operates at an acceptable level of service under future 2023 background conditions with the addition of the traffic generated by the proposed development. In addition, a future signal at project access on Collier Boulevard will provide an adequate Level of Service and will alleviate congestion on the Collier Boulevard southbound left turn lane servicing the Tuscan Cove Development.

Mitigation of Impact

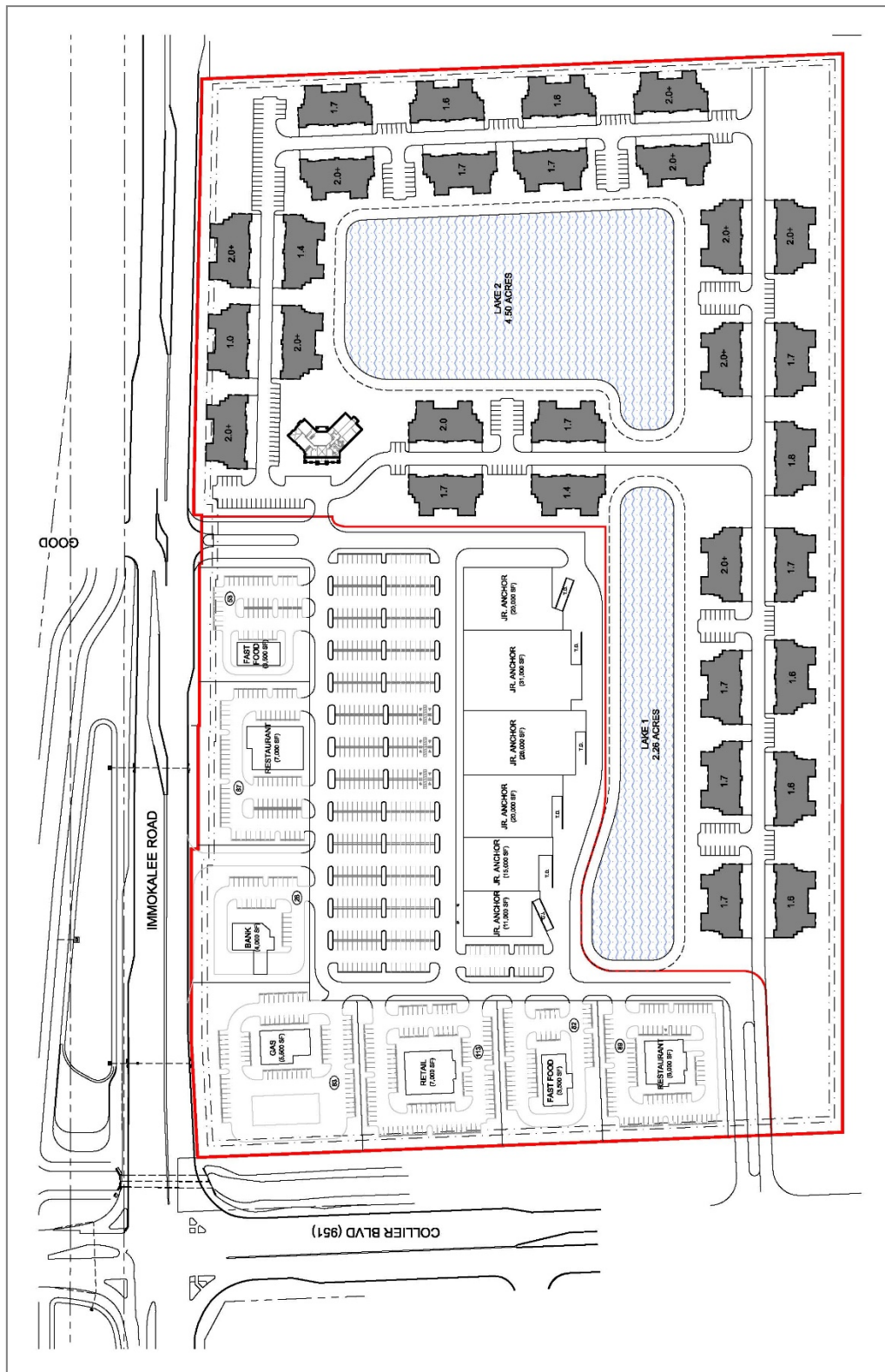
The developer proposes to pay the appropriate Collier County Road Impact Fee as building permits are issued for the project.

Appendix A: Project Master Site Plans

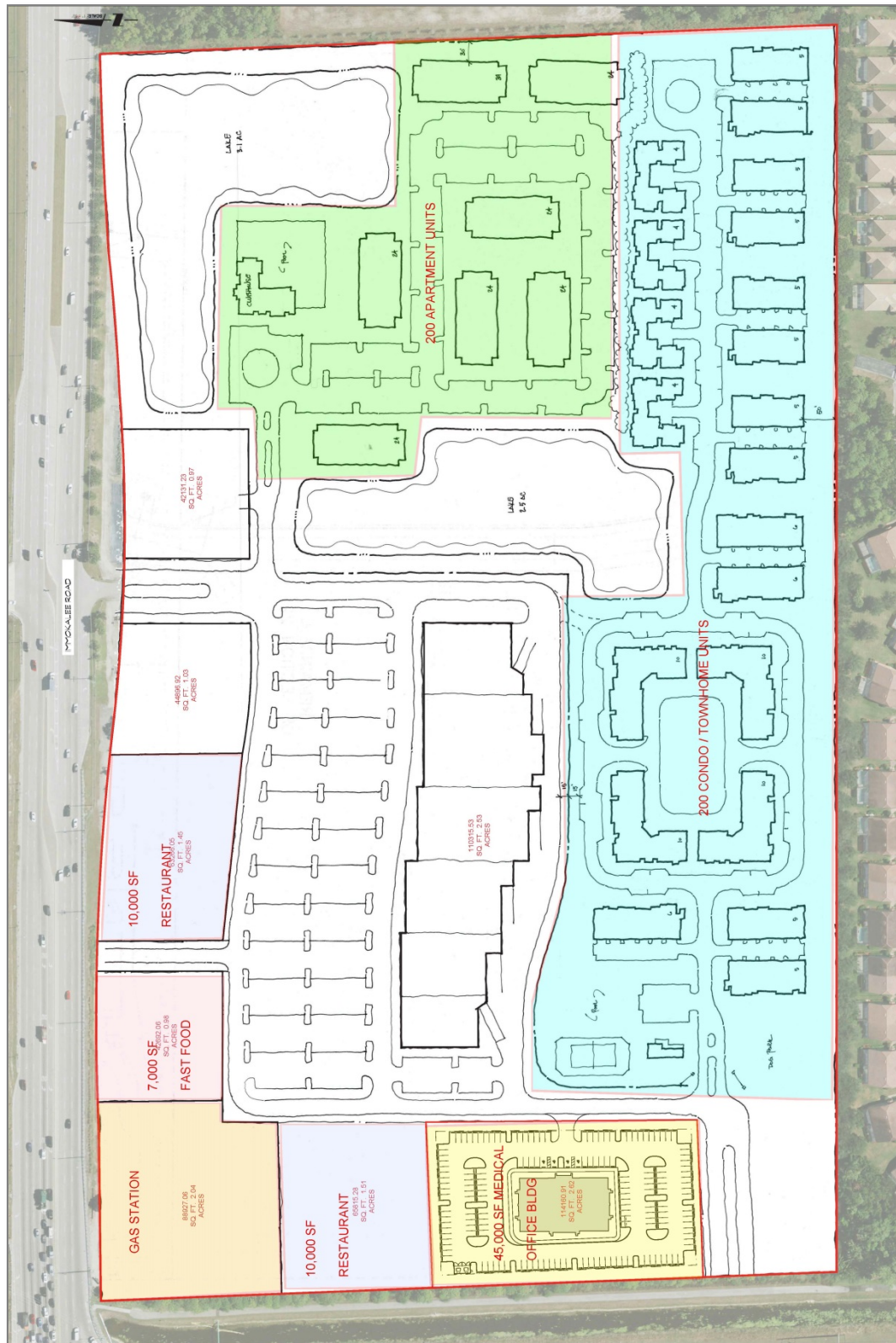
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Master Site Plan – Scenario 2



Master Site Plan – Scenario 3



Appendix B: Initial Meeting Checklist (Methodology Meeting)

INITIAL MEETING CHECKLIST

Suggestion: Use this Appendix as a worksheet to ensure that no important elements are overlooked. Cross out the items that do not apply, or N/A (not applicable).

Date: April 20, 2017 Time: N/A

Location: via email

People Attending:

Name, Organization, and Telephone Numbers

- 1) Michael Sawyer, Collier County Transportation Planning
- 2) Norman Trebilcock, Trebilcock Consulting Solutions
- 3) Ciprian Malaescu, Trebilcock Consulting Solutions
- 4) Stephen Baluch, Collier County Transportation Planning
- 5) Anthony Khawaja, Traffic Operations
- 6) Chad Sweet, Traffic Engineering & Sign Operations
- 7) Eric Mallory, Metro Commercial
- 8) Bill Gramer, Ch2M Hill

Study Preparer:

Preparer's Name and Title: Norman Trebilcock, AICP, PE

Organization: Trebilcock Consulting Solutions, PA

Address & Telephone Number: 1205 Piper Boulevard, Suite 202, Naples, FL 34110; ph 239-566-9551

Reviewer(s):

Reviewer's Name & Title: Michael Sawyer, Project Manager

Organization & Telephone Number: Collier County Transportation Planning Department; 239-252-2926

Applicant:

Applicant's Name: Peninsula Engineering

Address: 2600 Golden Gate Parkway, Naples, FL 34105

Telephone Number: 239-403-6700

Proposed Development:

Name: Pelican Nursery Property – PUD Rezone

Location: Southeast quadrant of the intersection of Collier Boulevard (CR 951) and Immokalee Road, refer to Fig.1

Land Use Type: Commercial and Residential

ITE Code #: LUC 220, LUC 710, LUC 820, LUC 853, LUC 862, LUC 934

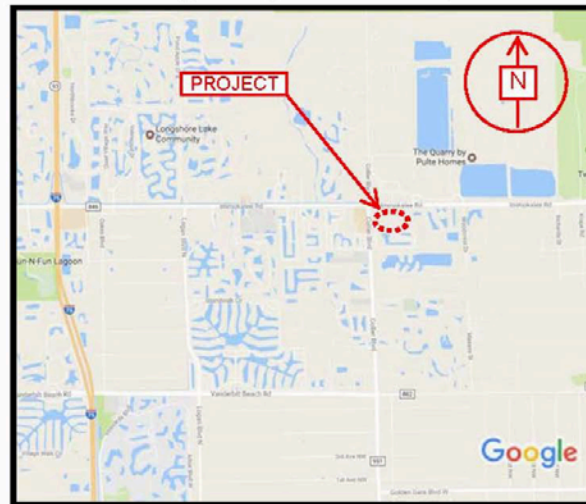
Description: Project proposes to rezone the existing parcel to allow for commercial and residential development. The TIS will use the highest of 2 potential development scenarios: **Scenario 1** – 112 du residential apartments, 30,000 sf general office, 147,000 sf shopping center, 6,000 sf (20 pumps) convenience market with gasoline pumps, 135,000 sf home improvement superstore and 7,000 sf fast-food restaurant with drive through window; and **Scenario 2** – 300 du residential apartments, 147,000 sf shopping center, 6,000 sf (20 pumps) convenience market with gasoline pumps, and 7,000 sf fast-food restaurant with drive through window. The most intense scenario from a traffic standpoint is used for the purposes of this TIS.

Zoning;

Comprehensive plan recommendation: N/A

Requested: To allow rezone request.

Fig.1 – Project Location Map



Findings of the Preliminary Study:

Since estimated net new project traffic is more than 100 two-way peak hour trips, this study qualifies for a Major Scale TIS. The TIS will include AM-PM peak hour trip generation, traffic distribution and assignments, significance test (based on 2%/2%/3% criterion).

Roadway link analysis is determined based on estimated net PM peak hour traffic.

Operational site access - turn lane analysis is based on proposed project build-out conditions AM-PM peak hour generated traffic and will include EB left-turn/U-turn analysis at Immokalee Rd. and Bellaire Bay Dr.

Internal capture and pass-by rates are considered based on ITE and Collier County guidelines recommendations.

Study Type: (if not net increase, operational study)

Small Scale TIS ☐

Minor TIS ☐

Major TIS ☒

Study Area:

Adjacent roadways: north - Immokalee Rd. west – Collier Blvd.

Additional intersections to be analyzed: N/A

Horizon Year(s): 2022

Analysis Time Period(s): AM-PM

Future Off-Site Developments: N/A

Source of Trip Generation Rates: ITE 9th Edition

Reductions in Trip Generation Rates:

None: N/A

Pass-by trips: Per ITE, CC TIS Guidelines

Internal trips (PUD): Per ITE, CC TIS Guidelines

Transit use: N/A

Other: N/A

Horizon Year Roadway Network Improvements: 2022

Methodology & Assumptions:

Non-site traffic estimates: CC 2016 AUIR: CC Traffic Counts

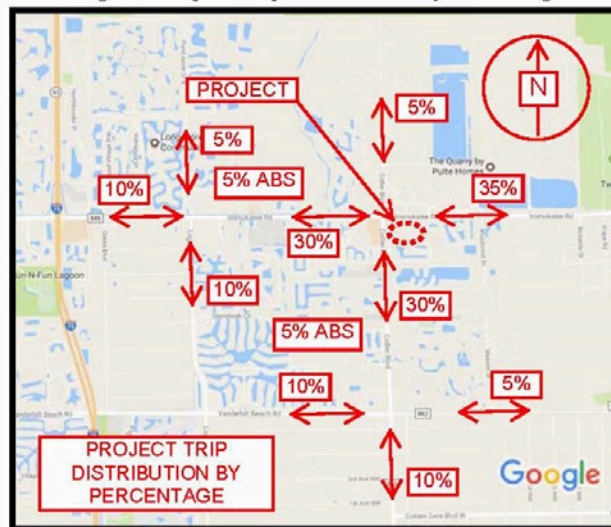
Site-trip generation: OTISS Software

Trip distribution method: Engineer's Estimate – refer to Fig. 2

Traffic assignment method: Engineer's Estimate

Traffic growth rate: historical growth rate or 2% minimum

Fig. 2 – Project Trip Distribution by Percentage



Special Features: (from preliminary study or prior experience)

Accidents locations: N/A

Sight distance: N/A

Queuing: N/A

Access location & configuration: N/A

Traffic control: MUTCD

Signal system location & progression needs: N/A

On-site parking needs: Per CC LDC

Data Sources: ITE Trip Generation 9th Edition; CC 2016 AUIR; CC Traffic Counts

Base maps: N/A

Prior study reports: N/A

Access policy and jurisdiction: N/A

Review process: N/A

Requirements: N/A

Miscellaneous: N/A

Small Scale Study – No Fee	_____
Minor Study - \$750.00	_____
Major Study - \$1500.00	<u> X </u>
Methodology Fee \$500	<u> X </u>
Includes 0 intersections	_____
Additional Intersections - \$500.00 each	_____

All fees will be agreed to during the Methodology meeting and must be paid to Transportation prior to our sign-off on the application.

SIGNATURES

Norman Trebilcock

Study Preparer—Norman Trebilcock

Reviewer(s)

Applicant

EXHIBIT A
Collier County
Traffic Impact Study Review Fee Schedule

Fees will be paid incrementally as the development proceeds: Methodology Review, Analysis Review, and Sufficiency Reviews. Fees for additional meetings or other optional services are also provided below.

Methodology Review - \$500 Fee

Methodology Review includes review of a submitted methodology statement, including review of submitted trip generation estimate(s), distribution, assignment, and review of a "Small Scale Study" determination, written approval/comments on a proposed methodology statement, and written confirmation of a re-submitted, amended methodology statement, and one meeting in Collier County, if needed.

"Small Scale Study" Review - No Additional Fee (Includes one sufficiency review)

Upon approval of the methodology review, the applicant may submit the study. The review includes: a concurrency determination, site access inspection and confirmation of the study compliance with trip generation, distribution and maximum threshold compliance.

"Minor Study Review" - \$750 Fee (Includes one sufficiency review)

Review of the submitted traffic analysis includes: optional field visit to site, confirmation of trip generation, distribution, and assignment, concurrency determination, confirmation of committed improvements, review of traffic volume data collected/assembled, review of off-site improvements within the right-of-way, review of site access and circulation, and preparation and review of "sufficiency" comments/questions.

"Major Study Review" - \$1,500 Fee (Includes two intersection analysis and two sufficiency reviews)

Review of the submitted traffic analysis includes: field visit to site, confirmation of trip generation, special trip generation and/or trip length study, distribution and assignment, concurrency determination, confirmation of committed improvements, review of traffic volume data collected/assembled, review of traffic growth analysis, review of off-site roadway operations and capacity analysis, review of site access and circulation, neighborhood traffic intrusion issues, any necessary improvement proposals and associated cost estimates, and preparation and review of up to two rounds of "sufficiency" comments/questions and/or recommended conditions of approval.

"Additional intersection Review" - \$500 Fee

The review of additional intersections shall include the same parameters as outlined in the "Major Study Review" and shall apply to each intersection above the first two intersections included in the "Major Study Review"

"Additional Sufficiency Reviews" - \$500 Fee

Additional sufficiency reviews beyond those initially included in the appropriate study shall require the additional Fee prior to the completion of the review.

Appendix C: Trip Generation Calculations ITE 10th Edition

Trip Generation Comparison – LUC 960 – Market square feet vs Fueling Positions

Project Information					
Project Name:		Baumgarten - SF, FP compare			
No:					
Date:		08/02/2018			
City:					
State/Province:					
Zip/Postal Code:					
Country:					
Client Name:					
Analyst's Name:					
Edition:		ITE-TGM 10th Edition			

Land Use	Size	AM Peak Hour		PM Peak Hour	
		Entry	Exit	Entry	Exit
960 - Super Convenience Market/Gas Station (General Urban/Suburban)	6 1000 Sq. Ft. GFA	280	280	208	208
Reduction		0	0	0	0
Internal		0	0	0	0
Pass-by		0	0	0	0
Non-pass-by		280	280	208	208
960 - Super Convenience Market/Gas Station - 1 (General Urban/Suburban)	20 Vehicle Fueling Positions	281	281	230	229
Reduction		0	0	0	0
Internal		0	0	0	0
Pass-by		0	0	0	0
Non-pass-by		281	281	230	229
Total		561	561	438	437
Total Reduction		0	0	0	0
Total Internal		0	0	0	0
Total Pass-by		0	0	0	0
Total Non-pass-by		561	561	438	437

PERIOD SETTING							
Analysis Name :		AM Peak Hour					
Project Name :		Baumgarten - SF, FP compare		No :			
Date:		8/2/2018		City:			
State/Province:				Zip/Postal Code:			
Country:				Client Name:			
Analyst's Name:				Edition:		ITE-TGM 10th Edition	
Land Use	Independent Variable	Size	Time Period	Method	Entry	Exit	Total
960 - Super Convenience Market/Gas Station (General Urban/Suburban)	1000 Sq. Ft. GFA	6	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.	Best Fit (LIN) $T = 137.38 (X)^{+}$ - 264.53	280 50%	280 50%	560
960 - Super Convenience Market/Gas Station - 1 (General Urban/Suburban)	Vehicle Fueling Positions	20	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.	Average 28.08	281 50%	281 50%	562

PERIOD SETTING							
Analysis Name :		PM Peak Hour					
Project Name :		Baumgarten - SF, FP compare		No :			
Date:		8/2/2018		City:			
State/Province:				Zip/Postal Code:			
Country:				Client Name:			
Analyst's Name:				Edition:		ITE-TGM 10th Edition	
Land Use	Independent Variable	Size	Time Period	Method	Entry	Exit	Total
960 - Super Convenience Market/Gas Station (General Urban/Suburban)	1000 Sq. Ft. GFA	6	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.	Average 69.28	208 50%	208 50%	416
960 - Super Convenience Market/Gas Station - 1 (General Urban/Suburban)	Vehicle Fueling Positions	20	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.	Average 22.96	230 50%	229 50%	459

Trip Generation – Scenario 1

Project Information							
Project Name:	Baumgarten - Scenario 1						
No:							
Date:	08/02/2018						
City:							
State/Province:							
Zip/Postal Code:							
Country:							
Client Name:							
Analyst's Name:							
Edition:	ITE-TGM 10th Edition						

Land Use	Size	Weekday		AM Peak Hour		PM Peak Hour	
		Entry	Exit	Entry	Exit	Entry	Exit
220 - Multifamily Housing (Low-Rise) (General Urban/Suburban)	112 Dwelling Units	403	403	12	41	41	24
Reduction		0	0	0	0	0	0
Internal		32	98	1	9	26	15
Pass-by		0	0	0	0	0	0
Non-pass-by		371	305	11	32	15	9
710 - General Office Building (General Urban/Suburban)	30 1000 Sq. Ft. GFA	165	165	47	8	6	30
Reduction		0	0	0	0	0	0
Internal		50	149	8	8	6	8
Pass-by		0	0	0	0	0	0
Non-pass-by		115	16	39	0	0	22
820 - Shopping Center (General Urban/Suburban)	147 1000 Sq. Ft. GLA	3907	3906	140	85	347	376
Reduction		0	0	0	0	0	0
Internal		101	162	5	3	20	19
Pass-by		571	562	34	20	82	89
Non-pass-by		3235	3182	101	62	245	268
862 - Home Improvement Superstore (General Urban/Suburban)	135 1000 Sq. Ft. GFA	2075	2075	121	91	154	161
Reduction		0	0	0	0	0	0
Internal		81	89	5	4	16	19
Pass-by		299	298	29	22	34	36
Non-pass-by		1695	1688	87	65	104	106
934 - Fast-Food Restaurant with Drive-Through Window (General Urban/Suburban)	7 1000 Sq. Ft. GFA	1649	1648	143	138	119	110
Reduction		0	0	0	0	0	0
Internal		493	279	27	27	47	46
Pass-by		462	548	58	56	36	32
Non-pass-by		694	821	58	55	36	32
960 - Super Convenience Market/Gas Station (General Urban/Suburban)	20 Vehicle Fueling Positions	2305	2305	281	281	230	229
Reduction		0	0	0	0	0	0
Internal		111	91	12	7	16	24
Pass-by		878	885	134	138	107	103
Non-pass-by		1316	1329	135	136	107	102
Total		10504	10502	744	644	897	930
Total Reduction		0	0	0	0	0	0
Total Internal		868	868	58	58	131	131
Total Pass-by		2210	2293	255	236	259	260
Total Non-pass-by		7426	7341	431	350	507	539

Print Preview

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PERIOD SETTING

Analysis Name : Weekday
Project Name : Baumgarten - Scenario 1
Date: 8/2/2018
State/Province:
Country:
Analyst's Name:
No :
City:
Zip/Postal Code:
Client Name:
Edition: ITE-TGM 10th Edition

Land Use	Independent Variable	Size	Time Period	Method	Entry	Exit	Total
220 - Multifamily Housing (Low-Rise) (General Urban/Suburban)	Dwelling Units	112	Weekday	Best Fit (LIN) $T = 7.56(X) + -40.86$	403 50%	403 50%	806
710 - General Office Building (General Urban/Suburban)	1000 Sq. Ft. GFA	30	Weekday	Best Fit (LOG) $\ln(T) = 0.97\ln(X) + 2.5$	165 50%	165 50%	330
820 - Shopping Center (General Urban/Suburban)	1000 Sq. Ft. GLA	147	Weekday	Best Fit (LOG) $\ln(T) = 0.68\ln(X) + 5.57$	3907 50%	3906 50%	7813
862 - Home Improvement Superstore (General Urban/Suburban)	1000 Sq. Ft. GFA	135	Weekday	Average 30.74	2075 50%	2075 50%	4150
934 - Fast-Food Restaurant with Drive-Through Window (General Urban/Suburban)	1000 Sq. Ft. GFA	7	Weekday	Average 470.95	1649 50%	1648 50%	3297
960 - Super Convenience Market/Gas Station (General Urban/Suburban)	Vehicle Fueling Positions	20	Weekday	Average 230.52	2305 50%	2305 50%	4610

TRAFFIC REDUCTIONS

Land Use	Entry Reduction	Adjusted Entry	Exit Reduction	Adjusted Exit
220 - Multifamily Housing (Low-Rise)	0 %	403	0 %	403
710 - General Office Building	0 %	165	0 %	165
820 - Shopping Center	0 %	3907	0 %	3906
862 - Home Improvement Superstore	0 %	2075	0 %	2075
934 - Fast-Food Restaurant with Drive-Through Window	0 %	1649	0 %	1648
960 - Super Convenience Market/Gas Station	0 %	2305	0 %	2305

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08/02/2018

INTERNAL TRIPS

220 - Multifamily Housing (Low-Rise)**Exit** 403 Demand Exit: 2 % (8)Balanced:
5**Entry** 403 Demand Entry: 0 % (0)Balanced:
0**710 - General Office Building**Demand Entry: 3 % (5) **Entry** 165Demand Exit: 1 % (2) **Exit** 165**220 - Multifamily Housing (Low-Rise)****Exit** 403 Demand Exit: 1 % (4)Balanced:
4**Entry** 403 Demand Entry: 1 % (4)Balanced:
4**820 - Shopping Center**Demand Entry: 5 % (195) **Entry** 3907Demand Exit: 5 % (195) **Exit** 3906**220 - Multifamily Housing (Low-Rise)****Exit** 403 Demand Exit: 1 % (4)Balanced:
4**Entry** 403 Demand Entry: 1 % (4)Balanced:
4**862 - Home Improvement Superstore**Demand Entry: 5 % (104) **Entry** 2075Demand Exit: 5 % (104) **Exit** 2075**220 - Multifamily Housing (Low-Rise)****Exit** 403 Demand Exit: 20 % (81)Balanced:
81**Entry** 403 Demand Entry: 5 % (20)Balanced:
20**934 - Fast-Food Restaurant with Drive-Through Window**Demand Entry: 20 % (330) **Entry** 1649Demand Exit: 4 % (66) **Exit** 1648**220 - Multifamily Housing (Low-Rise)****Exit** 403 Demand Exit: 1 % (4)Balanced:
4**Entry** 403 Demand Entry: 1 % (4)Balanced:
4**960 - Super Convenience Market/Gas Station**Demand Entry: 5 % (115) **Entry** 2305Demand Exit: 5 % (115) **Exit** 2305**710 - General Office Building****Exit** 165 Demand Exit: 9 % (15)Balanced:
15**Entry** 165 Demand Entry: 1 % (2)Balanced:
2**820 - Shopping Center**Demand Entry: 11 % (430) **Entry** 3907Demand Exit: 10 % (391) **Exit** 3906**710 - General Office Building****Exit** 165 Demand Exit: 9 % (15)Balanced:
15**Entry** 165 Demand Entry: 1 % (2)Balanced:
2**862 - Home Improvement Superstore**Demand Entry: 11 % (228) **Entry** 2075Demand Exit: 10 % (208) **Exit** 2075**710 - General Office Building****Exit** 165 Demand Exit: 63 % (104)Balanced:
104**Entry** 165 Demand Entry: 14 % (23)Balanced:
23**934 - Fast-Food Restaurant with Drive-Through Window**Demand Entry: 23 % (379) **Entry** 1649Demand Exit: 31 % (511) **Exit** 1648

Print Preview

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710 - General Office Building

Exit 165 Demand Exit: 9 % (15) Balanced: 15

Entry 165 Demand Entry: 11 % (18) Balanced: 18

960 - Super Convenience Market/Gas Station

Demand Entry: 11 % (254) Entry 2305

Demand Exit: 10 % (231) Exit 2305

820 - Shopping Center

Exit 3906 Demand Exit: 0 % (0) Balanced: 0

Entry 3907 Demand Entry: 0 % (0) Balanced: 0

862 - Home Improvement Superstore

Demand Entry: 0 % (0) Entry 2075

Demand Exit: 0 % (0) Exit 2075

820 - Shopping Center

Exit 3906 Demand Exit: 4 % (156) Balanced: 156

Entry 3907 Demand Entry: 3 % (117) Balanced: 82

934 - Fast-Food Restaurant with Drive-Through Window

Demand Entry: 17 % (280) Entry 1649

Demand Exit: 5 % (82) Exit 1648

820 - Shopping Center

Exit 3906 Demand Exit: 0 % (0) Balanced: 0

Entry 3907 Demand Entry: 0 % (0) Balanced: 0

960 - Super Convenience Market/Gas Station

Demand Entry: 0 % (0) Entry 2305

Demand Exit: 0 % (0) Exit 2305

862 - Home Improvement Superstore

Exit 2075 Demand Exit: 4 % (83) Balanced: 83

Entry 2075 Demand Entry: 3 % (62) Balanced: 62

934 - Fast-Food Restaurant with Drive-Through Window

Demand Entry: 17 % (280) Entry 1649

Demand Exit: 5 % (82) Exit 1648

862 - Home Improvement Superstore

Exit 2075 Demand Exit: 0 % (0) Balanced: 0

Entry 2075 Demand Entry: 0 % (0) Balanced: 0

960 - Super Convenience Market/Gas Station

Demand Entry: 0 % (0) Entry 2305

Demand Exit: 0 % (0) Exit 2305

934 - Fast-Food Restaurant with Drive-Through Window

Exit 1648 Demand Exit: 17 % (280) Balanced: 92

Entry 1649 Demand Entry: 5 % (82) Balanced: 69

960 - Super Convenience Market/Gas Station

Demand Entry: 4 % (92) Entry 2305

Demand Exit: 3 % (69) Exit 2305

220 - Multifamily Housing (Low-Rise)**Internal Trips**

	Total Trips	710 - General Office Building	820 - Shopping Center	862 - Home Improvement Superstore	934 - Fast-Food Restaurant with Drive-Through Window	960 - Super Convenience Market/Gas Station	Total	External Trips
Entry	403 (100%)	0 (0%)	4 (1%)	4 (1%)	20 (5%)	4 (1%)	32 (8%)	371 (92%)
Exit	403 (100%)	5 (1%)	4 (1%)	4 (1%)	81 (20%)	4 (1%)	98 (24%)	305 (76%)
Total	806 (100%)	5 (1%)	8 (1%)	8 (1%)	101 (13%)	8 (1%)	130 (16%)	676 (84%)

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820 - Shopping Center

862 - Home Improvement Superstore

934 - Fast-Food Restaurant with Drive-Through Window

960 - Super Convenience Market/Gas Station

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		Housing (Low-Rise)	Office Building	820 - Shopping Center	862 - Home Improvement Superstore	Restaurant with Drive- Through Window		
Entry	2305 (100%)	4 (0%)	15 (1%)	0 (0%)	0 (0%)	92 (4%)	111 (5%)	2194 (95%)
Exit	2305 (100%)	4 (0%)	18 (1%)	0 (0%)	0 (0%)	69 (3%)	91 (4%)	2214 (96%)
Total	4610 (100%)	8 (0%)	33 (1%)	0 (0%)	0 (0%)	161 (3%)	202 (4%)	4408 (96%)

EXTERNAL TRIPS

Land Use	External Trips	Pass-by%	Pass-by Trips	Non-pass-by Trips
220 - Multifamily Housing (Low-Rise)	676	0	0	676
710 - General Office Building	131	0	0	131
820 - Shopping Center	7550	15	1133	6417
862 - Home Improvement Superstore	3980	15	597	3383
934 - Fast-Food Restaurant with Drive-Through Window	2525	40	1010	1515
960 - Super Convenience Market/Gas Station	4408	40	1763	2645

ITE DEVIATION DETAILS

Weekday

Landuse No deviations from ITE.

Methods No deviations from ITE.

External Trips 220 - Multifamily Housing (Low-Rise) (General Urban/Suburban)
ITE does not recommend a particular pass-by% for this case.

710 - General Office Building (General Urban/Suburban)
ITE does not recommend a particular pass-by% for this case.

820 - Shopping Center (General Urban/Suburban)
ITE does not recommend a particular pass-by% for this case.

862 - Home Improvement Superstore (General Urban/Suburban)
ITE does not recommend a particular pass-by% for this case.

934 - Fast-Food Restaurant with Drive-Through Window (General Urban/Suburban)
ITE does not recommend a particular pass-by% for this case.

960 - Super Convenience Market/Gas Station (General Urban/Suburban)
ITE does not recommend a particular pass-by% for this case.

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SUMMARY

Total Entering	10504
Total Exiting	10502
Total Entering Reduction	0
Total Exiting Reduction	0
Total Entering Internal Capture Reduction	868
Total Exiting Internal Capture Reduction	868
Total Entering Pass-by Reduction	2210
Total Exiting Pass-by Reduction	2293
Total Entering Non-Pass-by Trips	7426
Total Exiting Non-Pass-by Trips	7341

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PERIOD SETTING

Analysis Name : AM Peak Hour
Project Name : Baumgarten - Scenario 1
Date: 8/2/2018
State/Province:
Country:
Analyst's Name:
No :
City:
Zip/Postal Code:
Client Name:
Edition: ITE-TGM 10th Edition

Land Use	Independent Variable	Size	Time Period	Method	Entry	Exit	Total
220 - Multifamily Housing (Low-Rise) (General Urban/Suburban)	Dwelling Units	112	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.	Best Fit (LOG) $\ln(T) = 0.95\ln(X) + -0.51$	12 23%	41 77%	53
710 - General Office Building (General Urban/Suburban)	1000 Sq. Ft. GFA	30	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.	Best Fit (LIN) $T = 0.94(X) + 26.49$	47 85%	8 15%	55
820 - Shopping Center (General Urban/Suburban)	1000 Sq. Ft. GLA	147	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.	Best Fit (LIN) $T = 0.5(X) + 151.78$	140 62%	85 38%	225
862 - Home Improvement Superstore (General Urban/Suburban)	1000 Sq. Ft. GFA	135	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.	Average 1.57	121 57%	91 43%	212
934 - Fast-Food Restaurant with Drive-Through Window (General Urban/Suburban)	1000 Sq. Ft. GFA	7	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.	Average 40.19	143 51%	138 49%	281
960 - Super Convenience Market/Gas Station (General Urban/Suburban)	Vehicle Fueling Positions	20	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.	Average 28.08	281 50%	281 50%	562

TRAFFIC REDUCTIONS

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Land Use	Entry Reduction	Adjusted Entry	Exit Reduction	Adjusted Exit
220 - Multifamily Housing (Low-Rise)	0 %	12	0 %	41
710 - General Office Building	0 %	47	0 %	8
820 - Shopping Center	0 %	140	0 %	85
862 - Home Improvement Superstore	0 %	121	0 %	91
934 - Fast-Food Restaurant with Drive-Through Window	0 %	143	0 %	138
960 - Super Convenience Market/Gas Station	0 %	281	0 %	281

INTERNAL TRIPS

220 - Multifamily Housing (Low-Rise)

Exit 41 Demand Exit: 2 % (1)
Entry 12 Demand Entry: 0 % (0)

Balanced:
1Balanced:
0**710 - General Office Building**

Demand Entry: 3 % (1) **Entry** 47
Demand Exit: 1 % (0) **Exit** 8

220 - Multifamily Housing (Low-Rise)

Exit 41 Demand Exit: 1 % (0)
Entry 12 Demand Entry: 1 % (0)

Balanced:
0Balanced:
0**820 - Shopping Center**

Demand Entry: 5 % (7) **Entry** 140
Demand Exit: 5 % (4) **Exit** 85

220 - Multifamily Housing (Low-Rise)

Exit 41 Demand Exit: 1 % (0)
Entry 12 Demand Entry: 1 % (0)

Balanced:
0Balanced:
0**862 - Home Improvement Superstore**

Demand Entry: 5 % (6) **Entry** 121
Demand Exit: 5 % (5) **Exit** 91

220 - Multifamily Housing (Low-Rise)

Exit 41 Demand Exit: 20 % (8)
Entry 12 Demand Entry: 5 % (1)

Balanced:
8Balanced:
1**934 - Fast-Food Restaurant with Drive-Through Window**

Demand Entry: 20 % (29) **Entry** 143
Demand Exit: 4 % (6) **Exit** 138

220 - Multifamily Housing (Low-Rise)

Exit 41 Demand Exit: 1 % (0)
Entry 12 Demand Entry: 1 % (0)

Balanced:
0Balanced:
0**960 - Super Convenience Market/Gas Station**

Demand Entry: 5 % (14) **Entry** 281
Demand Exit: 5 % (14) **Exit** 281

710 - General Office Building

Exit 8 Demand Exit: 9 % (1)
Entry 47 Demand Entry: 1 % (0)

Balanced:
1Balanced:
0**820 - Shopping Center**

Demand Entry: 11 % (15) **Entry** 140
Demand Exit: 10 % (9) **Exit** 85

710 - General Office Building

Exit 8 Demand Exit: 9 % (1)

862 - Home Improvement Superstore

Demand Entry: 11 % (13) **Entry** 121

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			Balanced: 1		
Entry 47	Demand Entry: 1 % (0)	Balanced: 0	Demand Exit: 10 % (9)	Exit 91	
710 - General Office Building			934 - Fast-Food Restaurant with Drive-Through Window		
Exit 8	Demand Exit: 63 % (5)	Balanced: 5	Demand Entry: 23 % (33)	Entry 143	
Entry 47	Demand Entry: 14 % (7)	Balanced: 7	Demand Exit: 31 % (43)	Exit 138	
710 - General Office Building			960 - Super Convenience Market/Gas Station		
Exit 8	Demand Exit: 9 % (1)	Balanced: 1	Demand Entry: 11 % (31)	Entry 281	
Entry 47	Demand Entry: 1 % (0)	Balanced: 0	Demand Exit: 10 % (28)	Exit 281	
820 - Shopping Center			862 - Home Improvement Superstore		
Exit 85	Demand Exit: 0 % (0)	Balanced: 0	Demand Entry: 0 % (0)	Entry 121	
Entry 140	Demand Entry: 0 % (0)	Balanced: 0	Demand Exit: 0 % (0)	Exit 91	
820 - Shopping Center			934 - Fast-Food Restaurant with Drive-Through Window		
Exit 85	Demand Exit: 4 % (3)	Balanced: 3	Demand Entry: 17 % (24)	Entry 143	
Entry 140	Demand Entry: 3 % (4)	Balanced: 4	Demand Exit: 5 % (7)	Exit 138	
820 - Shopping Center			960 - Super Convenience Market/Gas Station		
Exit 85	Demand Exit: 0 % (0)	Balanced: 0	Demand Entry: 0 % (0)	Entry 281	
Entry 140	Demand Entry: 0 % (0)	Balanced: 0	Demand Exit: 0 % (0)	Exit 281	
862 - Home Improvement Superstore			934 - Fast-Food Restaurant with Drive-Through Window		
Exit 91	Demand Exit: 4 % (4)	Balanced: 4	Demand Entry: 17 % (24)	Entry 143	
Entry 121	Demand Entry: 3 % (4)	Balanced: 4	Demand Exit: 5 % (7)	Exit 138	
862 - Home Improvement Superstore			960 - Super Convenience Market/Gas Station		
Exit 91	Demand Exit: 0 % (0)	Balanced: 0	Demand Entry: 0 % (0)	Entry 281	
Entry 121	Demand Entry: 0 % (0)	Balanced: 0	Demand Exit: 0 % (0)	Exit 281	
934 - Fast-Food Restaurant with Drive-Through Window			960 - Super Convenience Market/Gas Station		
Exit 138	Demand Exit: 17 % (23)	Balanced: 11	Demand Entry: 4 % (11)	Entry 281	
Entry 143	Demand Entry: 5 % (7)	Balanced: 7	Demand Exit: 3 % (8)	Exit 281	

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220 - Multifamily Housing (Low-Rise)

	Total Trips	Internal Trips						External Trips
		710 - General Office Building	820 - Shopping Center	862 - Home Improvement Superstore	934 - Fast-Food Restaurant with Drive-Through Window	960 - Super Convenience Market/Gas Station	Total	
Entry	12 (100%)	0 (0%)	0 (0%)	0 (0%)	1 (8%)	0 (0%)	1 (8%)	11 (92%)
Exit	41 (100%)	1 (2%)	0 (0%)	0 (0%)	8 (20%)	0 (0%)	9 (22%)	32 (78%)
Total	53 (100%)	1 (2%)	0 (0%)	0 (0%)	9 (17%)	0 (0%)	10 (19%)	43 (81%)

710 - General Office Building

	Total Trips	Internal Trips						External Trips
		220 - Multifamily Housing (Low-Rise)	820 - Shopping Center	862 - Home Improvement Superstore	934 - Fast-Food Restaurant with Drive-Through Window	960 - Super Convenience Market/Gas Station	Total	
Entry	47 (100%)	1 (2%)	0 (0%)	0 (0%)	7 (15%)	0 (0%)	8 (17%)	39 (83%)
Exit	8 (100%)	0 (0%)	1 (13%)	1 (13%)	5 (63%)	1 (13%)	8 (100%)	0 (0%)
Total	55 (100%)	1 (2%)	1 (2%)	1 (2%)	12 (22%)	1 (2%)	16 (29%)	39 (71%)

820 - Shopping Center

	Total Trips	Internal Trips						External Trips
		220 - Multifamily Housing (Low-Rise)	710 - General Office Building	862 - Home Improvement Superstore	934 - Fast-Food Restaurant with Drive-Through Window	960 - Super Convenience Market/Gas Station	Total	
Entry	140 (100%)	0 (0%)	1 (1%)	0 (0%)	4 (3%)	0 (0%)	5 (4%)	135 (96%)
Exit	85 (100%)	0 (0%)	0 (0%)	0 (0%)	3 (4%)	0 (0%)	3 (4%)	82 (96%)
Total	225 (100%)	0 (0%)	1 (0%)	0 (0%)	7 (3%)	0 (0%)	8 (4%)	217 (96%)

862 - Home Improvement Superstore

	Total Trips	Internal Trips						External Trips
		220 - Multifamily Housing (Low-Rise)	710 - General Office Building	820 - Shopping Center	934 - Fast-Food Restaurant with Drive-Through Window	960 - Super Convenience Market/Gas Station	Total	
Entry	121 (100%)	0 (0%)	1 (1%)	0 (0%)	4 (3%)	0 (0%)	5 (4%)	116 (96%)
Exit	91 (100%)	0 (0%)	0 (0%)	0 (0%)	4 (4%)	0 (0%)	4 (4%)	87 (96%)
Total	212 (100%)	0 (0%)	1 (0%)	0 (0%)	8 (4%)	0 (0%)	9 (4%)	203 (96%)

934 - Fast-Food Restaurant with Drive-Through Window

	Total Trips	Internal Trips						External Trips
		220 - Multifamily	710 - General			960 - Super Convenience	Total	

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		Housing (Low-Rise)	Office Building	820 - Shopping Center	862 - Home Improvement Superstore	Market/Gas Station		
Entry	143 (100%)	8 (6%)	5 (3%)	3 (2%)	4 (3%)	7 (5%)	27 (19%)	116 (81%)
Exit	138 (100%)	1 (1%)	7 (5%)	4 (3%)	4 (3%)	11 (8%)	27 (20%)	111 (80%)
Total	281 (100%)	9 (3%)	12 (4%)	7 (2%)	8 (3%)	18 (6%)	54 (19%)	227 (81%)

960 - Super Convenience Market/Gas Station

		Internal Trips						
Total Trips		220 - Multifamily Housing (Low-Rise)	710 - General Office Building	820 - Shopping Center	862 - Home Improvement Superstore	934 - Fast- Food Restaurant with Drive- Through Window	Total	External Trips
Entry	281 (100%)	0 (0%)	1 (0%)	0 (0%)	0 (0%)	11 (4%)	12 (4%)	269 (96%)
Exit	281 (100%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	7 (2%)	7 (2%)	274 (98%)
Total	562 (100%)	0 (0%)	1 (0%)	0 (0%)	0 (0%)	18 (3%)	19 (3%)	543 (97%)

EXTERNAL TRIPS

Land Use	External Trips	Pass-by%	Pass-by Trips	Non-pass-by Trips
220 - Multifamily Housing (Low-Rise)	43	0	0	43
710 - General Office Building	39	0	0	39
820 - Shopping Center	217	25	54	163
862 - Home Improvement Superstore	203	25	51	152
934 - Fast-Food Restaurant with Drive-Through Window	227	50	114	113
960 - Super Convenience Market/Gas Station	543	50	272	271

ITE DEVIATION DETAILS**Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.**

Landuse No deviations from ITE.

Methods No deviations from ITE.

External Trips 220 - Multifamily Housing (Low-Rise) (General Urban/Suburban)
ITE does not recommend a particular pass-by% for this case.710 - General Office Building (General Urban/Suburban)
ITE does not recommend a particular pass-by% for this case.<https://itetripngen.org/projectstudy/printpreview?guid=8c2d9115891d039e8640c3311dd35bf4>

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Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.

820 - Shopping Center (General Urban/Suburban)
ITE does not recommend a particular pass-by% for this case.

862 - Home Improvement Superstore (General Urban/Suburban)
ITE does not recommend a particular pass-by% for this case.

934 - Fast-Food Restaurant with Drive-Through Window (General Urban/Suburban)
The chosen pass-by% (50) is not provided by ITE. ITE recommends 49.

960 - Super Convenience Market/Gas Station (General Urban/Suburban)
The chosen pass-by% (50) is not provided by ITE. ITE recommends 63.

SUMMARY

Total Entering	744
Total Exiting	644
Total Entering Reduction	0
Total Exiting Reduction	0
Total Entering Internal Capture Reduction	58
Total Exiting Internal Capture Reduction	58
Total Entering Pass-by Reduction	255
Total Exiting Pass-by Reduction	236
Total Entering Non-Pass-by Trips	431
Total Exiting Non-Pass-by Trips	350

PERIOD SETTING

Analysis Name : PM Peak Hour
Project Name : Baumgarten - Scenario 1
Date: 8/2/2018
State/Province:
Country:
Analyst's Name:
No :
City:
Zip/Postal Code:
Client Name:
Edition: ITE-TGM 10th Edition

Land Use	Independent Variable	Size	Time Period	Method	Entry	Exit	Total
220 - Multifamily Housing (Low-Rise) (General Urban/Suburban)	Dwelling Units	112	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.	Best Fit (LOG) $\ln(T) = 0.89\ln(X)$ +/-0.02	41 63%	24 37%	65
710 - General Office Building (General Urban/Suburban)	1000 Sq. Ft. GFA	30	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.	Best Fit (LOG) $\ln(T) = 0.95\ln(X)$ +0.36	6 17%	30 83%	36
820 - Shopping Center (General Urban/Suburban)	1000 Sq. Ft. GLA	147	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.	Best Fit (LOG) $\ln(T) = 0.74\ln(X)$ +2.89	347 48%	376 52%	723
862 - Home Improvement Superstore (General Urban/Suburban)	1000 Sq. Ft. GFA	135	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.	Average 2.33	154 49%	161 51%	315
934 - Fast-Food Restaurant with Drive-Through Window (General Urban/Suburban)	1000 Sq. Ft. GFA	7	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.	Average 32.67	119 52%	110 48%	229
960 - Super Convenience Market/Gas Station (General Urban/Suburban)	Vehicle Fueling Positions	20	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.	Average 22.96	230 50%	229 50%	459

TRAFFIC REDUCTIONS

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Land Use	Entry Reduction	Adjusted Entry	Exit Reduction	Adjusted Exit
220 - Multifamily Housing (Low-Rise)	0 %	41	0 %	24
710 - General Office Building	0 %	6	0 %	30
820 - Shopping Center	0 %	347	0 %	376
862 - Home Improvement Superstore	0 %	154	0 %	161
934 - Fast-Food Restaurant with Drive-Through Window	0 %	119	0 %	110
960 - Super Convenience Market/Gas Station	0 %	230	0 %	229

INTERNAL TRIPS

220 - Multifamily Housing (Low-Rise)

Exit 24 Demand Exit: 4 % (1)

Entry 41 Demand Entry: 4 % (2)

Balanced:
1Balanced:
1**710 - General Office Building**

Demand Entry: 57 % (3) Entry 6

Demand Exit: 2 % (1) Exit 30

220 - Multifamily Housing (Low-Rise)

Exit 24 Demand Exit: 14 % (3)

Entry 41 Demand Entry: 15 % (6)

Balanced:
3Balanced:
6**820 - Shopping Center**

Demand Entry: 3 % (10) Entry 347

Demand Exit: 9 % (34) Exit 376

220 - Multifamily Housing (Low-Rise)

Exit 24 Demand Exit: 14 % (3)

Entry 41 Demand Entry: 15 % (6)

Balanced:
3Balanced:
6**862 - Home Improvement Superstore**

Demand Entry: 3 % (5) Entry 154

Demand Exit: 9 % (14) Exit 161

220 - Multifamily Housing (Low-Rise)

Exit 24 Demand Exit: 21 % (5)

Entry 41 Demand Entry: 16 % (7)

Balanced:
5Balanced:
7**934 - Fast-Food Restaurant with Drive-Through Window**

Demand Entry: 14 % (17) Entry 119

Demand Exit: 18 % (20) Exit 110

220 - Multifamily Housing (Low-Rise)

Exit 24 Demand Exit: 14 % (3)

Entry 41 Demand Entry: 15 % (6)

Balanced:
3Balanced:
6**960 - Super Convenience Market/Gas Station**

Demand Entry: 3 % (7) Entry 230

Demand Exit: 9 % (21) Exit 229

710 - General Office Building

Exit 30 Demand Exit: 7 % (2)

Entry 6 Demand Entry: 10 % (1)

Balanced:
2**820 - Shopping Center**

Demand Entry: 3 % (10) Entry 347

Demand Exit: 1 % (4) Exit 376

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			Balanced: 1			
710 - General Office Building				862 - Home Improvement Superstore		
Exit	30	Demand Exit: 7 % (2)	Balanced: 2	Demand Entry: 3 % (5)	Entry	154
Entry	6	Demand Entry: 10 % (1)	Balanced: 1	Demand Exit: 1 % (2)	Exit	161
710 - General Office Building				934 - Fast-Food Restaurant with Drive-Through Window		
Exit	30	Demand Exit: 4 % (1)	Balanced: 1	Demand Entry: 2 % (2)	Entry	119
Entry	6	Demand Entry: 30 % (2)	Balanced: 2	Demand Exit: 3 % (3)	Exit	110
710 - General Office Building				960 - Super Convenience Market/Gas Station		
Exit	30	Demand Exit: 7 % (2)	Balanced: 2	Demand Entry: 3 % (7)	Entry	230
Entry	6	Demand Entry: 10 % (1)	Balanced: 1	Demand Exit: 1 % (2)	Exit	229
820 - Shopping Center				862 - Home Improvement Superstore		
Exit	376	Demand Exit: 0 % (0)	Balanced: 0	Demand Entry: 0 % (0)	Entry	154
Entry	347	Demand Entry: 0 % (0)	Balanced: 0	Demand Exit: 0 % (0)	Exit	161
820 - Shopping Center				934 - Fast-Food Restaurant with Drive-Through Window		
Exit	376	Demand Exit: 10 % (38)	Balanced: 12	Demand Entry: 10 % (12)	Entry	119
Entry	347	Demand Entry: 17 % (59)	Balanced: 15	Demand Exit: 14 % (15)	Exit	110
820 - Shopping Center				960 - Super Convenience Market/Gas Station		
Exit	376	Demand Exit: 0 % (0)	Balanced: 0	Demand Entry: 0 % (0)	Entry	230
Entry	347	Demand Entry: 0 % (0)	Balanced: 0	Demand Exit: 0 % (0)	Exit	229
862 - Home Improvement Superstore				934 - Fast-Food Restaurant with Drive-Through Window		
Exit	161	Demand Exit: 10 % (16)	Balanced: 12	Demand Entry: 10 % (12)	Entry	119
Entry	154	Demand Entry: 7 % (11)	Balanced: 11	Demand Exit: 14 % (15)	Exit	110
862 - Home Improvement Superstore				960 - Super Convenience Market/Gas Station		
Exit	161	Demand Exit: 0 % (0)	Balanced: 0	Demand Entry: 0 % (0)	Entry	230
Entry	154	Demand Entry: 0 % (0)	Balanced: 0	Demand Exit: 0 % (0)	Exit	229
				960 - Super Convenience Market/Gas Station		

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934 - Fast-Food Restaurant with Drive-Through Window

Exit	110	Demand Exit:	10 % (11)	Balanced:	11	Demand Entry:	10 % (23)	Entry	230
Entry	119	Demand Entry:	14 % (17)	Balanced:	17	Demand Exit:	14 % (32)	Exit	229

220 - Multifamily Housing (Low-Rise)**Internal Trips**

	Total Trips	710 - General Office Building	820 - Shopping Center	862 - Home Improvement Superstore	934 - Fast-Food Restaurant with Drive-Through Window	960 - Super Convenience Market/Gas Station	Total	External Trips
Entry	41 (100%)	1 (2%)	6 (15%)	6 (15%)	7 (17%)	6 (15%)	26 (63%)	15 (37%)
Exit	24 (100%)	1 (4%)	3 (13%)	3 (13%)	5 (21%)	3 (13%)	15 (63%)	9 (37%)
Total	65 (100%)	2 (3%)	9 (14%)	9 (14%)	12 (18%)	9 (14%)	41 (63%)	24 (37%)

710 - General Office Building**Internal Trips**

	Total Trips	220 - Multifamily Housing (Low-Rise)	820 - Shopping Center	862 - Home Improvement Superstore	934 - Fast-Food Restaurant with Drive-Through Window	960 - Super Convenience Market/Gas Station	Total	External Trips
Entry	6 (100%)	1 (17%)	1 (17%)	1 (17%)	2 (33%)	1 (17%)	6 (100%)	0 (0%)
Exit	30 (100%)	1 (3%)	2 (7%)	2 (7%)	1 (3%)	2 (7%)	8 (27%)	22 (73%)
Total	36 (100%)	2 (6%)	3 (8%)	3 (8%)	3 (8%)	3 (8%)	14 (39%)	22 (61%)

820 - Shopping Center**Internal Trips**

	Total Trips	220 - Multifamily Housing (Low-Rise)	710 - General Office Building	862 - Home Improvement Superstore	934 - Fast-Food Restaurant with Drive-Through Window	960 - Super Convenience Market/Gas Station	Total	External Trips
Entry	347 (100%)	3 (1%)	2 (1%)	0 (0%)	15 (4%)	0 (0%)	20 (6%)	327 (94%)
Exit	376 (100%)	6 (2%)	1 (0%)	0 (0%)	12 (3%)	0 (0%)	19 (5%)	357 (95%)
Total	723 (100%)	9 (1%)	3 (0%)	0 (0%)	27 (4%)	0 (0%)	39 (5%)	684 (95%)

862 - Home Improvement Superstore**Internal Trips**

	Total Trips	220 - Multifamily Housing (Low-Rise)	710 - General Office Building	820 - Shopping Center	934 - Fast-Food Restaurant with Drive-Through Window	960 - Super Convenience Market/Gas Station	Total	External Trips
Entry	154 (100%)	3 (2%)	2 (1%)	0 (0%)	11 (7%)	0 (0%)	16 (10%)	138 (90%)

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Exit	161 (100%)	6 (4%)	1 (1%)	0 (0%)	12 (7%)	0 (0%)	19 (12%)	142 (88%)
Total	315 (100%)	9 (3%)	3 (1%)	0 (0%)	23 (7%)	0 (0%)	35 (11%)	280 (89%)

934 - Fast-Food Restaurant with Drive-Through Window

Internal Trips								
	Total Trips	220 - Multifamily Housing (Low-Rise)	710 - General Office Building	820 - Shopping Center	862 - Home Improvement Superstore	960 - Super Convenience Market/Gas Station	Total	External Trips
Entry	119 (100%)	5 (4%)	1 (1%)	12 (10%)	12 (10%)	17 (14%)	47 (39%)	72 (61%)
Exit	110 (100%)	7 (6%)	2 (2%)	15 (14%)	11 (10%)	11 (10%)	46 (42%)	64 (58%)
Total	229 (100%)	12 (5%)	3 (1%)	27 (12%)	23 (10%)	28 (12%)	93 (41%)	136 (59%)

960 - Super Convenience Market/Gas Station

Internal Trips								
	Total Trips	220 - Multifamily Housing (Low-Rise)	710 - General Office Building	820 - Shopping Center	862 - Home Improvement Superstore	934 - Fast-Food Restaurant with Drive-Through Window	Total	External Trips
Entry	230 (100%)	3 (1%)	2 (1%)	0 (0%)	0 (0%)	11 (5%)	16 (7%)	214 (93%)
Exit	229 (100%)	6 (3%)	1 (0%)	0 (0%)	0 (0%)	17 (7%)	24 (10%)	205 (90%)
Total	459 (100%)	9 (2%)	3 (1%)	0 (0%)	0 (0%)	28 (6%)	40 (9%)	419 (91%)

EXTERNAL TRIPS

Land Use	External Trips	Pass-by%	Pass-by Trips	Non-pass-by Trips
220 - Multifamily Housing (Low-Rise)	24	0	0	24
710 - General Office Building	22	0	0	22
820 - Shopping Center	684	25	171	513
862 - Home Improvement Superstore	280	25	70	210
934 - Fast-Food Restaurant with Drive-Through Window	136	50	68	68
960 - Super Convenience Market/Gas Station	419	50	210	209

ITE DEVIATION DETAILS**Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.**
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Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.

Landuse No deviations from ITE.

Methods No deviations from ITE.

External Trips 220 - Multifamily Housing (Low-Rise) (General Urban/Suburban)
ITE does not recommend a particular pass-by% for this case.

710 - General Office Building (General Urban/Suburban)
ITE does not recommend a particular pass-by% for this case.

820 - Shopping Center (General Urban/Suburban)
The chosen pass-by% (25) is not provided by ITE. ITE recommends 34.

862 - Home Improvement Superstore (General Urban/Suburban)
The chosen pass-by% (25) is not provided by ITE. ITE recommends 48.

960 - Super Convenience Market/Gas Station (General Urban/Suburban)
The chosen pass-by% (50) is not provided by ITE. ITE recommends 66.

SUMMARY

Total Entering	897
Total Exiting	930
Total Entering Reduction	0
Total Exiting Reduction	0
Total Entering Internal Capture Reduction	131
Total Exiting Internal Capture Reduction	131
Total Entering Pass-by Reduction	259
Total Exiting Pass-by Reduction	260
Total Entering Non-Pass-by Trips	507
Total Exiting Non-Pass-by Trips	539

Trip Generation – Scenario 2 Adjusted for 20% Maximum Internal Capture

Project Information							
Project Name:		Baumgarten - Scenario 2					
No:							
Date:		08/02/2018					
City:							
State/Province:							
Zip/Postal Code:							
Country:							
Client Name:							
Analyst's Name:							
Edition:		ITE-TGM 10th Edition					

Land Use	Size	Weekday		AM Peak Hour		PM Peak Hour	
		Entry	Exit	Entry	Exit	Entry	Exit
220 - Multifamily Housing (Low-Rise) (General Urban/Suburban)	300 Dwelling Units	1114	1113	31	104	99	58
Reduction		0	0	0	0	0	0
Internal		78	245	2	23	62	36
Pass-by		0	0	0	0	0	0
Non-pass-by		1036	868	29	81	37	22
820 - Shopping Center (General Urban/Suburban)	147 1000 Sq. Ft. GLA	3907	3906	140	85	347	376
Reduction		0	0	0	0	0	0
Internal		186	245	10	5	22	32
Pass-by		558	549	32	21	81	86
Non-pass-by		3163	3112	98	59	244	258
934 - Fast-Food Restaurant with Drive-Through Window (General Urban/Suburban)	7 1000 Sq. Ft. GFA	1649	1648	143	138	119	110
Reduction		0	0	0	0	0	0
Internal		626	343	39	27	35	32
Pass-by		409	522	52	56	42	39
Non-pass-by		614	783	52	55	42	39
960 - Super Convenience Market/Gas Station (General Urban/Suburban)	20 Vehicle Fueling Positions	2305	2305	281	281	230	229
Reduction		0	0	0	0	0	0
Internal		195	103	21	10	20	34
Pass-by		844	881	130	136	105	98
Non-pass-by		1266	1321	130	135	105	97
310 - Hotel (General Urban/Suburban)	140 Occupied Rooms	856	856	50	37	50	41
Reduction		0	0	0	0	0	0
Internal		34	183	2	9	8	13
Pass-by		0	0	0	0	0	0
Non-pass-by		822	673	48	28	42	28
Total		9831	9828	645	645	845	814
Total Reduction		0	0	0	0	0	0
Total Internal		1119	1119	74	74	147	147
Total Pass-by		1811	1952	214	213	228	223
Total Non-pass-by		6901	6757	357	358	470	444

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PERIOD SETTING

Analysis Name : Weekday
Project Name : Baumgarten - Scenario 2
Date: 8/2/2018
State/Province:
Country:
Analyst's Name:
No :
City:
Zip/Postal Code:
Client Name:
Edition: ITE-TGM 10th Edition

Land Use	Independent Variable	Size	Time Period	Method	Entry	Exit	Total
220 - Multifamily Housing (Low-Rise) (General Urban/Suburban)	Dwelling Units	300	Weekday	Best Fit (LIN) $T = 7.56 (X) + -40.86$	1114 50%	1113 50%	2227
820 - Shopping Center (General Urban/Suburban)	1000 Sq. Ft. GLA	147	Weekday	Best Fit (LOG) $\ln(T) = 0.68\ln(X) + 5.57$	3907 50%	3906 50%	7813
934 - Fast-Food Restaurant with Drive-Through Window (General Urban/Suburban)	1000 Sq. Ft. GFA	7	Weekday	Average 470.95	1649 50%	1648 50%	3297
960 - Super Convenience Market/Gas Station (General Urban/Suburban)	Vehicle Fueling Positions	20	Weekday	Average 230.52	2305 50%	2305 50%	4610
310 - Hotel (General Urban/Suburban)	Occupied Rooms	140 ⁽⁰⁾	Weekday	Average 12.23	856 ⁽¹⁾ 50%	856 ⁽¹⁾ 50%	1712 ⁽¹⁾

(0) indicates size out of range.
 (1) indicates small sample size, use carefully.

TRAFFIC REDUCTIONS

Land Use	Entry Reduction	Adjusted Entry	Exit Reduction	Adjusted Exit
220 - Multifamily Housing (Low-Rise)	0 %	1114	0 %	1113
820 - Shopping Center	0 %	3907	0 %	3906
934 - Fast-Food Restaurant with Drive-Through Window	0 %	1649	0 %	1648
960 - Super Convenience Market/Gas Station	0 %	2305	0 %	2305
310 - Hotel	0 %	856	0 %	856

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INTERNAL TRIPS

220 - Multifamily Housing (Low-Rise)**Exit** 1113 Demand Exit: 1 % (11)Balanced:
11**Entry** 1114 Demand Entry: 1 % (11)Balanced:
11**820 - Shopping Center**Demand Entry: 8 % (313) **Entry** 3907Demand Exit: 7 % (273) **Exit** 3906**220 - Multifamily Housing (Low-Rise)****Exit** 1113 Demand Exit: 20 % (223)Balanced:
223**Entry** 1114 Demand Entry: 5 % (56)Balanced:
56**934 - Fast-Food Restaurant with Drive-Through Window**Demand Entry: 20 % (330) **Entry** 1649Demand Exit: 4 % (66) **Exit** 1648**220 - Multifamily Housing (Low-Rise)****Exit** 1113 Demand Exit: 1 % (11)Balanced:
11**Entry** 1114 Demand Entry: 1 % (11)Balanced:
11**960 - Super Convenience Market/Gas Station**Demand Entry: 8 % (184) **Entry** 2305Demand Exit: 7 % (161) **Exit** 2305**220 - Multifamily Housing (Low-Rise)****Exit** 1113 Demand Exit: 0 % (0)Balanced:
0**Entry** 1114 Demand Entry: 0 % (0)Balanced:
0Demand Entry: 0 % (0) **Entry** 856Demand Exit: 0 % (0) **Exit** 856**310 - Hotel****820 - Shopping Center****Exit** 3906 Demand Exit: 6 % (234)Balanced:
234**Entry** 3907 Demand Entry: 4 % (156)Balanced:
115**934 - Fast-Food Restaurant with Drive-Through Window**Demand Entry: 25 % (412) **Entry** 1649Demand Exit: 7 % (115) **Exit** 1648**820 - Shopping Center****Exit** 3906 Demand Exit: 0 % (0)Balanced:
0**Entry** 3907 Demand Entry: 0 % (0)Balanced:
0**960 - Super Convenience Market/Gas Station**Demand Entry: 0 % (0) **Entry** 2305Demand Exit: 0 % (0) **Exit** 2305**820 - Shopping Center****Exit** 3906 Demand Exit: 0 % (0)Balanced:
0**Entry** 3907 Demand Entry: 2 % (78)Balanced:
60Demand Entry: 0 % (0) **Entry** 856Demand Exit: 7 % (60) **Exit** 856**310 - Hotel****934 - Fast-Food Restaurant with Drive-Through Window****Exit** 1648 Demand Exit: 25 % (412)Balanced:
138**Entry** 1649 Demand Entry: 7 % (115)Balanced:
92**960 - Super Convenience Market/Gas Station**Demand Entry: 6 % (138) **Entry** 2305Demand Exit: 4 % (92) **Exit** 2305

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934 - Fast-Food Restaurant with Drive-Through Window**310 - Hotel**

Exit	1648	Demand Exit:	3 % (49)	Balanced:	34	Demand Entry:	4 % (34)	Entry	856
Entry	1649	Demand Entry:	6 % (99)	Balanced:	77	Demand Exit:	9 % (77)	Exit	856

960 - Super Convenience Market/Gas Station**310 - Hotel**

Exit	2305	Demand Exit:	0 % (0)	Balanced:	0	Demand Entry:	0 % (0)	Entry	856
Entry	2305	Demand Entry:	2 % (46)	Balanced:	46	Demand Exit:	7 % (60)	Exit	856

220 - Multifamily Housing (Low-Rise)

	Total Trips	Internal Trips					External Trips
		820 - Shopping Center	934 - Fast-Food Restaurant with Drive-Through Window	960 - Super Convenience Market/Gas Station	310 - Hotel	Total	
Entry	1114 (100%)	11 (1%)	56 (5%)	11 (1%)	0 (0%)	78 (7%)	1036 (93%)
Exit	1113 (100%)	11 (1%)	223 (20%)	11 (1%)	0 (0%)	245 (22%)	868 (78%)
Total	2227 (100%)	22 (1%)	279 (13%)	22 (1%)	0 (0%)	323 (15%)	1904 (85%)

820 - Shopping Center

	Total Trips	Internal Trips					External Trips
		220 - Multifamily Housing (Low-Rise)	934 - Fast-Food Restaurant with Drive-Through Window	960 - Super Convenience Market/Gas Station	310 - Hotel	Total	
Entry	3907 (100%)	11 (0%)	115 (3%)	0 (0%)	60 (2%)	186 (5%)	3721 (95%)
Exit	3906 (100%)	11 (0%)	234 (6%)	0 (0%)	0 (0%)	245 (6%)	3661 (94%)
Total	7813 (100%)	22 (0%)	349 (4%)	0 (0%)	60 (1%)	431 (6%)	7382 (94%)

934 - Fast-Food Restaurant with Drive-Through Window

	Total Trips	Internal Trips				Total	External Trips
		220 - Multifamily Housing (Low-Rise)	820 - Shopping Center	960 - Super Convenience Market/Gas Station	310 - Hotel		
Entry	1649 (100%)	223 (14%)	234 (14%)	92 (6%)	77 (5%)	626 (38%)	1023 (62%)
Exit	1648 (100%)	56 (3%)	115 (7%)	138 (8%)	34 (2%)	343 (21%)	1305 (79%)
Total	3297 (100%)	279 (8%)	349 (11%)	230 (7%)	111 (3%)	969 (29%)	2328 (71%)

960 - Super Convenience Market/Gas Station

	Total Trips	Internal Trips				Total	External Trips
		220 - Multifamily		934 - Fast-Food Restaurant	310 - Hotel		

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		Housing (Low-Rise)	820 - Shopping Center	with Drive- Through Window			
Entry	2305 (100%)	11 (0%)	0 (0%)	138 (6%)	46 (2%)	195 (8%)	2110 (92%)
Exit	2305 (100%)	11 (0%)	0 (0%)	92 (4%)	0 (0%)	103 (4%)	2202 (96%)
Total	4610 (100%)	22 (0%)	0 (0%)	230 (5%)	46 (1%)	298 (6%)	4312 (94%)

310 - Hotel

		Internal Trips				Total	External Trips
Total Trips		220 - Multifamily Housing (Low-Rise)	820 - Shopping Center	934 - Fast-Food Restaurant with Drive- Through Window	960 - Super Convenience Market/Gas Station		
Entry	856 (100%)	0 (0%)	0 (0%)	34 (4%)	0 (0%)	34 (4%)	822 (96%)
Exit	856 (100%)	0 (0%)	60 (7%)	77 (9%)	46 (5%)	183 (21%)	673 (79%)
Total	1712 (100%)	0 (0%)	60 (4%)	111 (6%)	46 (3%)	217 (13%)	1495 (87%)

EXTERNAL TRIPS

Land Use	External Trips	Pass-by%	Pass-by Trips	Non-pass-by Trips
220 - Multifamily Housing (Low-Rise)	1904	0	0	1904
820 - Shopping Center	7382	15	1107	6275
934 - Fast-Food Restaurant with Drive-Through Window	2328	40	931	1397
960 - Super Convenience Market/Gas Station	4312	40	1725	2587
310 - Hotel	1495	0	0	1495

ITE DEVIATION DETAILS**Weekday**

Landuse No deviations from ITE.

Methods No deviations from ITE.

External Trips 220 - Multifamily Housing (Low-Rise) (General Urban/Suburban)
ITE does not recommend a particular pass-by% for this case.

820 - Shopping Center (General Urban/Suburban)
ITE does not recommend a particular pass-by% for this case.

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Weekday

934 - Fast-Food Restaurant with Drive-Through Window (General Urban/Suburban)
ITE does not recommend a particular pass-by% for this case.

960 - Super Convenience Market/Gas Station (General Urban/Suburban)
ITE does not recommend a particular pass-by% for this case.

310 - Hotel (General Urban/Suburban)
ITE does not recommend a particular pass-by% for this case.

SUMMARY

Total Entering	9831
Total Exiting	9828
Total Entering Reduction	0
Total Exiting Reduction	0
Total Entering Internal Capture Reduction	1119
Total Exiting Internal Capture Reduction	1119
Total Entering Pass-by Reduction	1811
Total Exiting Pass-by Reduction	1952
Total Entering Non-Pass-by Trips	6901
Total Exiting Non-Pass-by Trips	6757

PERIOD SETTING

Analysis Name : AM Peak Hour
Project Name : Baumgarten - Scenario 2
Date: 8/2/2018
State/Province:
Country:
Analyst's Name:
No :
City:
Zip/Postal Code:
Client Name:
Edition: ITE-TGM 10th Edition

Land Use	Independent Variable	Size	Time Period	Method	Entry	Exit	Total
220 - Multifamily Housing (Low-Rise) (General Urban/Suburban)	Dwelling Units	300	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.	Best Fit (LOG) $\ln(T) = 0.95\ln(X) + -0.51$	31 23%	104 77%	135
820 - Shopping Center (General Urban/Suburban)	1000 Sq. Ft. GLA	147	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.	Best Fit (LIN) $T = 0.5(X) + 151.78$	140 62%	85 38%	225
934 - Fast-Food Restaurant with Drive-Through Window (General Urban/Suburban)	1000 Sq. Ft. GFA	7	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.	Average 40.19	143 51%	138 49%	281
960 - Super Convenience Market/Gas Station (General Urban/Suburban)	Vehicle Fueling Positions	20	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.	Average 28.08	281 50%	281 50%	562
310 - Hotel (General Urban/Suburban)	Occupied Rooms	140	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.	Average 0.62	50 57%	37 43%	87

TRAFFIC REDUCTIONS

Land Use	Entry Reduction	Adjusted Entry	Exit Reduction	Adjusted Exit
220 - Multifamily Housing (Low-Rise)	0 %	31	0 %	104
820 - Shopping Center	0 %	140	0 %	85
934 - Fast-Food Restaurant with Drive-Through Window	0 %	143	0 %	138
960 - Super Convenience Market/Gas Station	0 %	281	0 %	281

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Land Use	Entry Reduction	Adjusted Entry	Exit Reduction	Adjusted Exit
310 - Hotel	0 %	50	0 %	37

INTERNAL TRIPS

220 - Multifamily Housing (Low-Rise)

Exit 104 Demand Exit: 1 % (1)

Entry 31 Demand Entry: 1 % (0)

Balanced:
1Balanced:
0

820 - Shopping Center

Demand Entry: 8 % (11) Entry 140

Demand Exit: 7 % (6) Exit 85

220 - Multifamily Housing (Low-Rise)

Exit 104 Demand Exit: 20 % (21)

Entry 31 Demand Entry: 5 % (2)

Balanced:
21Balanced:
2

934 - Fast-Food Restaurant with Drive-Through Window

Demand Entry: 20 % (29) Entry 143

Demand Exit: 4 % (6) Exit 138

220 - Multifamily Housing (Low-Rise)

Exit 104 Demand Exit: 1 % (1)

Entry 31 Demand Entry: 1 % (0)

Balanced:
1Balanced:
0

960 - Super Convenience Market/Gas Station

Demand Entry: 8 % (22) Entry 281

Demand Exit: 7 % (20) Exit 281

220 - Multifamily Housing (Low-Rise)

Exit 104 Demand Exit: 0 % (0)

Entry 31 Demand Entry: 0 % (0)

Balanced:
0Balanced:
0

310 - Hotel

Demand Entry: 0 % (0) Entry 50

Demand Exit: 0 % (0) Exit 37

820 - Shopping Center

Exit 85 Demand Exit: 6 % (5)

Entry 140 Demand Entry: 4 % (6)

Balanced:
5Balanced:
6

934 - Fast-Food Restaurant with Drive-Through Window

Demand Entry: 25 % (36) Entry 143

Demand Exit: 7 % (10) Exit 138

820 - Shopping Center

Exit 85 Demand Exit: 0 % (0)

Entry 140 Demand Entry: 0 % (0)

Balanced:
0Balanced:
0

960 - Super Convenience Market/Gas Station

Demand Entry: 0 % (0) Entry 281

Demand Exit: 0 % (0) Exit 281

820 - Shopping Center

Exit 85 Demand Exit: 0 % (0)

Entry 140 Demand Entry: 2 % (3)

Balanced:
0Balanced:
3

310 - Hotel

Demand Entry: 0 % (0) Entry 50

Demand Exit: 7 % (3) Exit 37

934 - Fast-Food Restaurant with Drive-Through Window

Exit 138 Demand Exit: 25 % (35)

960 - Super Convenience Market/Gas Station

Demand Entry: 6 % (17) Entry 281

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		Balanced:			Balanced:		
		17			10		
Entry	143	Demand Entry: 7 % (10)		Demand Exit: 4 % (11)		Exit	281

934 - Fast-Food Restaurant with Drive-Through Window**310 - Hotel**

Exit	138	Demand Exit: 3 % (4)	Balanced:	2	Demand Entry: 4 % (2)	Entry	50
Entry	143	Demand Entry: 6 % (9)	Balanced:	3	Demand Exit: 9 % (3)	Exit	37

960 - Super Convenience Market/Gas Station**310 - Hotel**

Exit	281	Demand Exit: 0 % (0)	Balanced:	0	Demand Entry: 0 % (0)	Entry	50
Entry	281	Demand Entry: 2 % (6)	Balanced:	3	Demand Exit: 7 % (3)	Exit	37

220 - Multifamily Housing (Low-Rise)

	Total Trips	Internal Trips					External Trips
		820 - Shopping Center	934 - Fast-Food Restaurant with Drive-Through Window	960 - Super Convenience Market/Gas Station	310 - Hotel	Total	
Entry	31 (100%)	0 (0%)	2 (6%)	0 (0%)	0 (0%)	2 (6%)	29 (94%)
Exit	104 (100%)	1 (1%)	21 (20%)	1 (1%)	0 (0%)	23 (22%)	81 (78%)
Total	135 (100%)	1 (1%)	23 (17%)	1 (1%)	0 (0%)	25 (19%)	110 (81%)

820 - Shopping Center

	Total Trips	Internal Trips					External Trips
		220 - Multifamily Housing (Low-Rise)	934 - Fast-Food Restaurant with Drive-Through Window	960 - Super Convenience Market/Gas Station	310 - Hotel	Total	
Entry	140 (100%)	1 (1%)	6 (4%)	0 (0%)	3 (2%)	10 (7%)	130 (93%)
Exit	85 (100%)	0 (0%)	5 (6%)	0 (0%)	0 (0%)	5 (6%)	80 (94%)
Total	225 (100%)	1 (0%)	11 (5%)	0 (0%)	3 (1%)	15 (7%)	210 (93%)

934 - Fast-Food Restaurant with Drive-Through Window

	Total Trips	Internal Trips				Total	External Trips
		220 - Multifamily Housing (Low-Rise)	820 - Shopping Center	960 - Super Convenience Market/Gas Station	310 - Hotel		
Entry	143 (100%)	21 (15%)	5 (3%)	10 (7%)	3 (2%)	39 (27%)	104 (73%)
Exit	138 (100%)	2 (1%)	6 (4%)	17 (12%)	2 (1%)	27 (20%)	111 (80%)
Total	281 (100%)	23 (8%)	11 (4%)	27 (10%)	5 (2%)	66 (23%)	215 (77%)

960 - Super Convenience Market/Gas Station

	Total Trips	Internal Trips				Total	External Trips
					310 - Hotel		

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		220 - Multifamily Housing (Low-Rise)	820 - Shopping Center	934 - Fast-Food Restaurant with Drive-Through Window			
Entry	281 (100%)	1 (0%)	0 (0%)	17 (6%)	3 (1%)	21 (7%)	260 (93%)
Exit	281 (100%)	0 (0%)	0 (0%)	10 (4%)	0 (0%)	10 (4%)	271 (96%)
Total	562 (100%)	1 (0%)	0 (0%)	27 (5%)	3 (1%)	31 (6%)	531 (94%)

310 - Hotel

		Internal Trips				Total	External Trips
	Total Trips	220 - Multifamily Housing (Low-Rise)	820 - Shopping Center	934 - Fast-Food Restaurant with Drive-Through Window	960 - Super Convenience Market/Gas Station		
Entry	50 (100%)	0 (0%)	0 (0%)	2 (4%)	0 (0%)	2 (4%)	48 (96%)
Exit	37 (100%)	0 (0%)	3 (8%)	3 (8%)	3 (8%)	9 (24%)	28 (76%)
Total	87 (100%)	0 (0%)	3 (3%)	5 (6%)	3 (3%)	11 (13%)	76 (87%)

EXTERNAL TRIPS

Land Use	External Trips	Pass-by%	Pass-by Trips	Non-pass-by Trips
220 - Multifamily Housing (Low-Rise)	110	0	0	110
820 - Shopping Center	210	25	53	157
934 - Fast-Food Restaurant with Drive-Through Window	215	50	108	107
960 - Super Convenience Market/Gas Station	531	50	266	265
310 - Hotel	76	0	0	76

ITE DEVIATION DETAILS**Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.**

Landuse No deviations from ITE.

Methods No deviations from ITE.

External Trips 220 - Multifamily Housing (Low-Rise) (General Urban/Suburban)
ITE does not recommend a particular pass-by% for this case.

820 - Shopping Center (General Urban/Suburban)
ITE does not recommend a particular pass-by% for this case.

934 - Fast-Food Restaurant with Drive-Through Window (General Urban/Suburban)
The chosen pass-by% (50) is not provided by ITE. ITE recommends 49.

960 - Super Convenience Market/Gas Station (General Urban/Suburban)

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Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.

The chosen pass-by% (50) is not provided by ITE. ITE recommends 63.

310 - Hotel (General Urban/Suburban)

ITE does not recommend a particular pass-by% for this case.

SUMMARY

Total Entering	645
Total Exiting	645
Total Entering Reduction	0
Total Exiting Reduction	0
Total Entering Internal Capture Reduction	74
Total Exiting Internal Capture Reduction	74
Total Entering Pass-by Reduction	214
Total Exiting Pass-by Reduction	213
Total Entering Non-Pass-by Trips	357
Total Exiting Non-Pass-by Trips	358

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PERIOD SETTING

Analysis Name : PM Peak Hour
Project Name : Baumgarten - Scenario 2
Date: 8/2/2018
State/Province:
Country:
Analyst's Name:
No :
City:
Zip/Postal Code:
Client Name:
Edition: ITE-TGM 10th Edition

Land Use	Independent Variable	Size	Time Period	Method	Entry	Exit	Total
220 - Multifamily Housing (Low-Rise) (General Urban/Suburban)	Dwelling Units	300	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.	Best Fit (LOG) $\ln(T) = 0.89\ln(X) + -0.02$	99 63%	58 37%	157
820 - Shopping Center (General Urban/Suburban)	1000 Sq. Ft. GLA	147	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.	Best Fit (LOG) $\ln(T) = 0.74\ln(X) + 2.89$	347 48%	376 52%	723
934 - Fast-Food Restaurant with Drive-Through Window (General Urban/Suburban)	1000 Sq. Ft. GFA	7	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.	Average 32.67	119 52%	110 48%	229
960 - Super Convenience Market/Gas Station (General Urban/Suburban)	Vehicle Fueling Positions	20	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.	Average 22.96	230 50%	229 50%	459
310 - Hotel (General Urban/Suburban)	Occupied Rooms	140	Weekday, AM Peak Hour of Generator	Average 0.65	50 55%	41 45%	91

 The time periods do not match.

TRAFFIC REDUCTIONS

Land Use	Entry Reduction	Adjusted Entry	Exit Reduction	Adjusted Exit
220 - Multifamily Housing (Low-Rise)	0 %	99	0 %	58
820 - Shopping Center	0 %	347	0 %	376
934 - Fast-Food Restaurant with Drive-Through Window	0 %	119	0 %	110

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Land Use	Entry Reduction	Adjusted Entry	Exit Reduction	Adjusted Exit
960 - Super Convenience Market/Gas Station	0 %	230	0 %	229
310 - Hotel	0 %	50	0 %	41

INTERNAL TRIPS

220 - Multifamily Housing (Low-Rise)

Exit 58	Demand Exit: 21 % (12)
Entry 99	Demand Entry: 23 % (23)

Balanced:
12
Balanced:
23

820 - Shopping Center

Demand Entry: 5 % (17)	Entry 347
Demand Exit: 13 % (49)	Exit 376

220 - Multifamily Housing (Low-Rise)

Exit 58	Demand Exit: 21 % (12)
Entry 99	Demand Entry: 16 % (16)

Balanced:
12
Balanced:
16

934 - Fast-Food Restaurant with Drive-Through Window

Demand Entry: 14 % (17)	Entry 119
Demand Exit: 18 % (20)	Exit 110

220 - Multifamily Housing (Low-Rise)

Exit 58	Demand Exit: 21 % (12)
Entry 99	Demand Entry: 23 % (23)

Balanced:
12
Balanced:
23

960 - Super Convenience Market/Gas Station

Demand Entry: 5 % (12)	Entry 230
Demand Exit: 13 % (30)	Exit 229

220 - Multifamily Housing (Low-Rise)

Exit 58	Demand Exit: 0 % (0)
Entry 99	Demand Entry: 0 % (0)

Balanced:
0
Balanced:
0

310 - Hotel

Demand Entry: 0 % (0)	Entry 50
Demand Exit: 0 % (0)	Exit 41

820 - Shopping Center

Exit 376	Demand Exit: 5 % (19)
Entry 347	Demand Entry: 8 % (28)

Balanced:
6
Balanced:
8

934 - Fast-Food Restaurant with Drive-Through Window

Demand Entry: 5 % (6)	Entry 119
Demand Exit: 7 % (8)	Exit 110

820 - Shopping Center

Exit 376	Demand Exit: 0 % (0)
Entry 347	Demand Entry: 0 % (0)

Balanced:
0
Balanced:
0

960 - Super Convenience Market/Gas Station

Demand Entry: 0 % (0)	Entry 230
Demand Exit: 0 % (0)	Exit 229

820 - Shopping Center

Exit 376	Demand Exit: 2 % (8)
Entry 347	Demand Entry: 1 % (3)

Balanced:
3
Balanced:
2

310 - Hotel

Demand Entry: 6 % (3)	Entry 50
Demand Exit: 5 % (2)	Exit 41

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934 - Fast-Food Restaurant with Drive-Through Window

Exit	110	Demand Exit: 5 % (6)	Balanced: 6	Demand Entry: 5 % (12)	Entry	230
Entry	119	Demand Entry: 7 % (8)	Balanced: 8	Demand Exit: 8 % (18)	Exit	229

934 - Fast-Food Restaurant with Drive-Through Window

Exit	110	Demand Exit: 2 % (2)	Balanced: 2	Demand Entry: 24 % (12)	Entry	50
Entry	119	Demand Entry: 17 % (20)	Balanced: 9	Demand Exit: 23 % (9)	Exit	41

960 - Super Convenience Market/Gas Station

Exit	229	Demand Exit: 2 % (5)	Balanced: 3	Demand Entry: 6 % (3)	Entry	50
Entry	230	Demand Entry: 1 % (2)	Balanced: 2	Demand Exit: 5 % (2)	Exit	41

220 - Multifamily Housing (Low-Rise)

		Internal Trips				Total	External Trips
Total Trips		820 - Shopping Center	934 - Fast-Food Restaurant with Drive-Through Window	960 - Super Convenience Market/Gas Station	310 - Hotel		
Entry	99 (100%)	23 (23%)	16 (16%)	23 (23%)	0 (0%)	62 (63%)	37 (37%)
Exit	58 (100%)	12 (21%)	12 (21%)	12 (21%)	0 (0%)	36 (62%)	22 (38%)
Total	157 (100%)	35 (22%)	28 (18%)	35 (22%)	0 (0%)	98 (62%)	59 (38%)

820 - Shopping Center

		Internal Trips				Total	External Trips
Total Trips		220 - Multifamily Housing (Low-Rise)	934 - Fast-Food Restaurant with Drive-Through Window	960 - Super Convenience Market/Gas Station	310 - Hotel		
Entry	347 (100%)	12 (3%)	8 (2%)	0 (0%)	2 (1%)	22 (6%)	325 (94%)
Exit	376 (100%)	23 (6%)	6 (2%)	0 (0%)	3 (1%)	32 (9%)	344 (91%)
Total	723 (100%)	35 (5%)	14 (2%)	0 (0%)	5 (1%)	54 (7%)	669 (93%)

934 - Fast-Food Restaurant with Drive-Through Window

		Internal Trips				Total	External Trips
Total Trips		220 - Multifamily Housing (Low-Rise)	820 - Shopping Center	960 - Super Convenience Market/Gas Station	310 - Hotel		
Entry	119 (100%)	12 (10%)	6 (5%)	8 (7%)	9 (8%)	35 (29%)	84 (71%)
Exit	110 (100%)	16 (15%)	8 (7%)	6 (5%)	2 (2%)	32 (29%)	78 (71%)

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Total	229 (100%)	28 (12%)	14 (6%)	14 (6%)	11 (5%)	67 (29%)	162 (71%)
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960 - Super Convenience Market/Gas Station

	Total Trips	Internal Trips				Total	External Trips
		220 - Multifamily Housing (Low-Rise)	820 - Shopping Center	934 - Fast-Food Restaurant with Drive-Through Window	310 - Hotel		
Entry	230 (100%)	12 (5%)	0 (0%)	6 (3%)	2 (1%)	20 (9%)	210 (91%)
Exit	229 (100%)	23 (10%)	0 (0%)	8 (3%)	3 (1%)	34 (15%)	195 (85%)
Total	459 (100%)	35 (8%)	0 (0%)	14 (3%)	5 (1%)	54 (12%)	405 (88%)

310 - Hotel

	Total Trips	Internal Trips				Total	External Trips
		220 - Multifamily Housing (Low-Rise)	820 - Shopping Center	934 - Fast-Food Restaurant with Drive-Through Window	960 - Super Convenience Market/Gas Station		
Entry	50 (100%)	0 (0%)	3 (6%)	2 (4%)	3 (6%)	8 (16%)	42 (84%)
Exit	41 (100%)	0 (0%)	2 (5%)	9 (22%)	2 (5%)	13 (32%)	28 (68%)
Total	91 (100%)	0 (0%)	5 (5%)	11 (12%)	5 (5%)	21 (23%)	70 (77%)

EXTERNAL TRIPS

Land Use	External Trips	Pass-by%	Pass-by Trips	Non-pass-by Trips
220 - Multifamily Housing (Low-Rise)	59	0	0	59
820 - Shopping Center	669	25	167	502
934 - Fast-Food Restaurant with Drive-Through Window	162	50	81	81
960 - Super Convenience Market/Gas Station	405	50	203	202
310 - Hotel	70	0	0	70

ITE DEVIATION DETAILS**Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.**

Landuse No deviations from ITE.

Methods No deviations from ITE.

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Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.

External Trips 220 - Multifamily Housing (Low-Rise) (General Urban/Suburban)
ITE does not recommend a particular pass-by% for this case.

820 - Shopping Center (General Urban/Suburban)
The chosen pass-by% (25) is not provided by ITE. ITE recommends 34.

960 - Super Convenience Market/Gas Station (General Urban/Suburban)
The chosen pass-by% (50) is not provided by ITE. ITE recommends 66.

Weekday, AM Peak Hour of Generator

Landuse No deviations from ITE.

Methods No deviations from ITE.

External Trips 310 - Hotel (General Urban/Suburban)
ITE does not recommend a particular pass-by% for this case.

SUMMARY

Total Entering	845
Total Exiting	814
Total Entering Reduction	0
Total Exiting Reduction	0
Total Entering Internal Capture Reduction	147
Total Exiting Internal Capture Reduction	147
Total Entering Pass-by Reduction	228
Total Exiting Pass-by Reduction	223
Total Entering Non-Pass-by Trips	470
Total Exiting Non-Pass-by Trips	444

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Trip Generation – Scenario 3

Project Information							
Project Name:		Baumgarten - Scenario 3					
No:							
Date:		08/02/2018					
City:							
State/Province:							
Zip/Postal Code:							
Country:							
Client Name:							
Analyst's Name:							
Edition:		ITE-TGM 10th Edition					

Land Use	Size	Weekday		AM Peak Hour		PM Peak Hour	
		Entry	Exit	Entry	Exit	Entry	Exit
220 - Multifamily Housing (Low-Rise) (General Urban/Suburban)	400 Dwelling Units	1492	1491	41	137	128	75
Reduction		0	0	0	0	0	0
Internal		56	169	0	15	36	22
Pass-by		0	0	0	0	0	0
Non-pass-by		1436	1322	41	122	92	53
720 - Medical-Dental Office Building (General Urban/Suburban)	45 1000 Sq. Ft. GFA	821	820	86	24	43	112
Reduction		0	0	0	0	0	0
Internal		154	534	17	20	10	23
Pass-by		0	0	0	0	0	0
Non-pass-by		667	286	69	4	33	89
820 - Shopping Center (General Urban/Suburban)	150 1000 Sq. Ft. GLA	3961	3960	141	86	352	382
Reduction		0	0	0	0	0	0
Internal		235	308	11	8	36	34
Pass-by		559	548	32	20	79	87
Non-pass-by		3167	3104	98	58	237	261
932 - High-Turnover (Sit-Down) Restaurant (General Urban/Suburban)	20 1000 Sq. Ft. GFA	1122	1122	109	90	121	74
Reduction		0	0	0	0	0	0
Internal		371	193	18	18	25	16
Pass-by		225	279	36	29	38	24
Non-pass-by		526	650	55	43	58	34
934 - Fast-Food Restaurant with Drive-Through Window (General Urban/Suburban)	7 1000 Sq. Ft. GFA	1649	1648	143	138	119	110
Reduction		0	0	0	0	0	0
Internal		421	190	21	17	13	24
Pass-by		491	583	61	61	53	43
Non-pass-by		737	875	61	60	53	43
960 - Super Convenience Market/Gas Station (General Urban/Suburban)	20 Vehicle Fueling Positions	2305	2305	281	281	230	229
Reduction		0	0	0	0	0	0
Internal		268	111	20	9	27	28
Pass-by		815	877	130	137	102	100
Non-pass-by		1222	1317	131	135	101	101
Total		11350	11346	801	756	993	982
Total Reduction		0	0	0	0	0	0
Total Internal		1505	1505	87	87	147	147
Total Pass-by		2090	2287	259	247	272	254
Total Non-pass-by		7755	7554	455	422	574	581

PERIOD SETTING

Analysis Name : Weekday
Project Name : Baumgarten - Scenario 3
Date: 8/2/2018
State/Province:
Country:
Analyst's Name:
No :
City:
Zip/Postal Code:
Client Name:
Edition: ITE-TGM 10th Edition

Land Use	Independent Variable	Size	Time Period	Method	Entry	Exit	Total
220 - Multifamily Housing (Low-Rise) (General Urban/Suburban)	Dwelling Units	400	Weekday	Best Fit (LIN) $T = 7.56 (X) + -40.86$	1492 50%	1491 50%	2983
720 - Medical-Dental Office Building (General Urban/Suburban)	1000 Sq. Ft. GFA	45	Weekday	Best Fit (LIN) $T = 38.42 (X) + -87.62$	821 50%	820 50%	1641
820 - Shopping Center (General Urban/Suburban)	1000 Sq. Ft. GLA	150	Weekday	Best Fit (LOG) $\ln(T) = 0.68\ln(X) + 5.57$	3961 50%	3960 50%	7921
932 - High-Turnover (Sit-Down) Restaurant (General Urban/Suburban)	1000 Sq. Ft. GFA	20 ⁽⁰⁾	Weekday	Average 112.18	1122 50%	1122 50%	2244
934 - Fast-Food Restaurant with Drive-Through Window (General Urban/Suburban)	1000 Sq. Ft. GFA	7	Weekday	Average 470.95	1649 50%	1648 50%	3297
960 - Super Convenience Market/Gas Station (General Urban/Suburban)	Vehicle Fueling Positions	20	Weekday	Average 230.52	2305 50%	2305 50%	4610

(0) indicates size out of range.

TRAFFIC REDUCTIONS

Land Use	Entry Reduction	Adjusted Entry	Exit Reduction	Adjusted Exit
220 - Multifamily Housing (Low-Rise)	0 %	1492	0 %	1491
720 - Medical-Dental Office Building	0 %	821	0 %	820
820 - Shopping Center	0 %	3961	0 %	3960
932 - High-Turnover (Sit-Down) Restaurant	0 %	1122	0 %	1122
934 - Fast-Food Restaurant with Drive-Through Window	0 %	1649	0 %	1648

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Land Use	Entry Reduction	Adjusted Entry	Exit Reduction	Adjusted Exit
960 - Super Convenience Market/Gas Station	0 %	2305	0 %	2305

INTERNAL TRIPS

220 - Multifamily Housing (Low-Rise)

Exit 1491 Demand Exit: 1 % (15)

Balanced:
8

Entry 1492 Demand Entry: 0 % (0)

Balanced:
0

720 - Medical-Dental Office Building

Demand Entry: 1 % (8) Entry 821

Demand Exit: 1 % (8) Exit 820

220 - Multifamily Housing (Low-Rise)

Exit 1491 Demand Exit: 1 % (15)

Balanced:
15

Entry 1492 Demand Entry: 1 % (15)

Balanced:
15

820 - Shopping Center

Demand Entry: 4 % (158) Entry 3961

Demand Exit: 3 % (119) Exit 3960

220 - Multifamily Housing (Low-Rise)

Exit 1491 Demand Exit: 5 % (75)

Balanced:
56

Entry 1492 Demand Entry: 1 % (15)

Balanced:
11

932 - High-Turnover (Sit-Down) Restaurant

Demand Entry: 5 % (56) Entry 1122

Demand Exit: 1 % (11) Exit 1122

220 - Multifamily Housing (Low-Rise)

Exit 1491 Demand Exit: 5 % (75)

Balanced:
75

Entry 1492 Demand Entry: 1 % (15)

Balanced:
15

934 - Fast-Food Restaurant with Drive-Through Window

Demand Entry: 5 % (82) Entry 1649

Demand Exit: 1 % (16) Exit 1648

220 - Multifamily Housing (Low-Rise)

Exit 1491 Demand Exit: 1 % (15)

Balanced:
15

Entry 1492 Demand Entry: 1 % (15)

Balanced:
15

960 - Super Convenience Market/Gas Station

Demand Entry: 4 % (92) Entry 2305

Demand Exit: 3 % (69) Exit 2305

720 - Medical-Dental Office Building

Exit 820 Demand Exit: 14 % (115)

Balanced:
115

Entry 821 Demand Entry: 2 % (16)

Balanced:
16

820 - Shopping Center

Demand Entry: 16 % (634) Entry 3961

Demand Exit: 14 % (554) Exit 3960

720 - Medical-Dental Office Building

Exit 820 Demand Exit: 31 % (254)

Balanced:
123

Entry 821 Demand Entry: 7 % (57)

Balanced:
57

932 - High-Turnover (Sit-Down) Restaurant

Demand Entry: 11 % (123) Entry 1122

Demand Exit: 15 % (168) Exit 1122

720 - Medical-Dental Office Building

934 - Fast-Food Restaurant with Drive-Through Window

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Exit	820	Demand Exit:	31 % (254)	Balanced:	181	Demand Entry:	11 % (181)	Entry	1649
Entry	821	Demand Entry:	7 % (57)	Balanced:	57	Demand Exit:	15 % (247)	Exit	1648
720 - Medical-Dental Office Building					960 - Super Convenience Market/Gas Station				
Exit	820	Demand Exit:	14 % (115)	Balanced:	115	Demand Entry:	16 % (369)	Entry	2305
Entry	821	Demand Entry:	2 % (16)	Balanced:	16	Demand Exit:	14 % (323)	Exit	2305
820 - Shopping Center					932 - High-Turnover (Sit-Down) Restaurant				
Exit	3960	Demand Exit:	4 % (158)	Balanced:	158	Demand Entry:	17 % (191)	Entry	1122
Entry	3961	Demand Entry:	3 % (119)	Balanced:	56	Demand Exit:	5 % (56)	Exit	1122
820 - Shopping Center					934 - Fast-Food Restaurant with Drive-Through Window				
Exit	3960	Demand Exit:	3 % (119)	Balanced:	119	Demand Entry:	12 % (198)	Entry	1649
Entry	3961	Demand Entry:	2 % (79)	Balanced:	49	Demand Exit:	3 % (49)	Exit	1648
820 - Shopping Center					960 - Super Convenience Market/Gas Station				
Exit	3960	Demand Exit:	0 % (0)	Balanced:	0	Demand Entry:	0 % (0)	Entry	2305
Entry	3961	Demand Entry:	0 % (0)	Balanced:	0	Demand Exit:	0 % (0)	Exit	2305
932 - High-Turnover (Sit-Down) Restaurant					934 - Fast-Food Restaurant with Drive-Through Window				
Exit	1122	Demand Exit:	0 % (0)	Balanced:	0	Demand Entry:	0 % (0)	Entry	1649
Entry	1122	Demand Entry:	0 % (0)	Balanced:	0	Demand Exit:	0 % (0)	Exit	1648
932 - High-Turnover (Sit-Down) Restaurant					960 - Super Convenience Market/Gas Station				
Exit	1122	Demand Exit:	12 % (135)	Balanced:	69	Demand Entry:	3 % (69)	Entry	2305
Entry	1122	Demand Entry:	3 % (34)	Balanced:	34	Demand Exit:	2 % (46)	Exit	2305
934 - Fast-Food Restaurant with Drive-Through Window					960 - Super Convenience Market/Gas Station				
Exit	1648	Demand Exit:	12 % (198)	Balanced:	69	Demand Entry:	3 % (69)	Entry	2305
Entry	1649	Demand Entry:	3 % (49)	Balanced:	46	Demand Exit:	2 % (46)	Exit	2305

220 - Multifamily Housing (Low-Rise)

Total Trips	Internal Trips					Total	External Trips
	720 - Medical-Dental Office Building	820 - Shopping Center	932 - High-Turnover (Sit-Down) Restaurant	934 - Fast-Food Restaurant with Drive-	960 - Super Convenience Market/Gas Station		

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					Through Window			
Entry	1492 (100%)	0 (0%)	15 (1%)	11 (1%)	15 (1%)	15 (1%)	56 (4%)	1436 (96%)
Exit	1491 (100%)	8 (1%)	15 (1%)	56 (4%)	75 (5%)	15 (1%)	169 (11%)	1322 (89%)
Total	2983 (100%)	8 (0%)	30 (1%)	67 (2%)	90 (3%)	30 (1%)	225 (8%)	2758 (92%)

720 - Medical-Dental Office Building

Internal Trips								
Total Trips	220 - Multifamily Housing (Low-Rise)	820 - Shopping Center	932 - High-Turnover (Sit-Down) Restaurant	934 - Fast-Food Restaurant with Drive-Through Window	960 - Super Convenience Market/Gas Station	Total	External Trips	
Entry	821 (100%)	8 (1%)	16 (2%)	57 (7%)	57 (7%)	16 (2%)	154 (19%)	667 (81%)
Exit	820 (100%)	0 (0%)	115 (14%)	123 (15%)	181 (22%)	115 (14%)	534 (65%)	286 (35%)
Total	1641 (100%)	8 (0%)	131 (8%)	180 (11%)	238 (15%)	131 (8%)	688 (42%)	953 (58%)

820 - Shopping Center

Internal Trips								
Total Trips	220 - Multifamily Housing (Low-Rise)	720 - Medical-Dental Office Building	932 - High-Turnover (Sit-Down) Restaurant	934 - Fast-Food Restaurant with Drive-Through Window	960 - Super Convenience Market/Gas Station	Total	External Trips	
Entry	3961 (100%)	15 (0%)	115 (3%)	56 (1%)	49 (1%)	0 (0%)	235 (6%)	3726 (94%)
Exit	3960 (100%)	15 (0%)	16 (0%)	158 (4%)	119 (3%)	0 (0%)	308 (8%)	3652 (92%)
Total	7921 (100%)	30 (0%)	131 (2%)	214 (3%)	168 (2%)	0 (0%)	543 (7%)	7378 (93%)

932 - High-Turnover (Sit-Down) Restaurant

Internal Trips								
Total Trips	220 - Multifamily Housing (Low-Rise)	720 - Medical-Dental Office Building	820 - Shopping Center	934 - Fast-Food Restaurant with Drive-Through Window	960 - Super Convenience Market/Gas Station	Total	External Trips	
Entry	1122 (100%)	56 (5%)	123 (11%)	158 (14%)	0 (0%)	34 (3%)	371 (33%)	751 (67%)
Exit	1122 (100%)	11 (1%)	57 (5%)	56 (5%)	0 (0%)	69 (6%)	193 (17%)	929 (83%)
Total	2244 (100%)	67 (3%)	180 (8%)	214 (10%)	0 (0%)	103 (5%)	564 (25%)	1680 (75%)

934 - Fast-Food Restaurant with Drive-Through Window

Internal Trips								
Total Trips	220 - Multifamily Housing (Low-Rise)	720 - Medical-Dental Office Building	820 - Shopping Center	932 - High-Turnover (Sit-Down) Restaurant	960 - Super Convenience Market/Gas Station	Total	External Trips	
Entry	1649 (100%)	75 (5%)	181 (11%)	119 (7%)	0 (0%)	46 (3%)	421 (26%)	1228 (74%)
Exit	1648 (100%)	15 (1%)	57 (3%)	49 (3%)	0 (0%)	69 (4%)	190 (12%)	1458 (88%)

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Total	3297 (100%)	90 (3%)	238 (7%)	168 (5%)	0 (0%)	115 (3%)	611 (19%)	2686 (81%)
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960 - Super Convenience Market/Gas Station

	Total Trips	Internal Trips					Total	External Trips
		220 - Multifamily Housing (Low-Rise)	720 - Medical-Dental Office Building	820 - Shopping Center	932 - High-Turnover (Sit-Down) Restaurant	934 - Fast-Food Restaurant with Drive-Through Window		
Entry	2305 (100%)	15 (1%)	115 (5%)	0 (0%)	69 (3%)	69 (3%)	268 (12%)	2037 (88%)
Exit	2305 (100%)	15 (1%)	16 (1%)	0 (0%)	34 (1%)	46 (2%)	111 (5%)	2194 (95%)
Total	4610 (100%)	30 (1%)	131 (3%)	0 (0%)	103 (2%)	115 (2%)	379 (8%)	4231 (92%)

EXTERNAL TRIPS

Land Use	External Trips	Pass-by%	Pass-by Trips	Non-pass-by Trips
220 - Multifamily Housing (Low-Rise)	2758	0	0	2758
720 - Medical-Dental Office Building	953	0	0	953
820 - Shopping Center	7378	15	1107	6271
932 - High-Turnover (Sit-Down) Restaurant	1680	30	504	1176
934 - Fast-Food Restaurant with Drive-Through Window	2686	40	1074	1612
960 - Super Convenience Market/Gas Station	4231	40	1692	2539

ITE DEVIATION DETAILS**Weekday**

Landuse No deviations from ITE.

Methods No deviations from ITE.

External Trips 220 - Multifamily Housing (Low-Rise) (General Urban/Suburban)
ITE does not recommend a particular pass-by% for this case.

720 - Medical-Dental Office Building (General Urban/Suburban)
ITE does not recommend a particular pass-by% for this case.

820 - Shopping Center (General Urban/Suburban)
ITE does not recommend a particular pass-by% for this case.

932 - High-Turnover (Sit-Down) Restaurant (General Urban/Suburban)
ITE does not recommend a particular pass-by% for this case.

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Weekday

934 - Fast-Food Restaurant with Drive-Through Window (General Urban/Suburban)
ITE does not recommend a particular pass-by% for this case.

960 - Super Convenience Market/Gas Station (General Urban/Suburban)
ITE does not recommend a particular pass-by% for this case.

SUMMARY

Total Entering	11350
Total Exiting	11346
Total Entering Reduction	0
Total Exiting Reduction	0
Total Entering Internal Capture Reduction	1505
Total Exiting Internal Capture Reduction	1505
Total Entering Pass-by Reduction	2090
Total Exiting Pass-by Reduction	2287
Total Entering Non-Pass-by Trips	7755
Total Exiting Non-Pass-by Trips	7554

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PERIOD SETTING

Analysis Name : AM Peak Hour
Project Name : Baumgarten - Scenario 3
Date: 8/2/2018
State/Province:
Country:
Analyst's Name:
No :
City:
Zip/Postal Code:
Client Name:
Edition: ITE-TGM 10th Edition

Land Use	Independent Variable	Size	Time Period	Method	Entry	Exit	Total
220 - Multifamily Housing (Low-Rise) (General Urban/Suburban)	Dwelling Units	400	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.	Best Fit (LOG) $\ln(T) = 0.95\ln(X) + -0.51$	41 23%	137 77%	178
720 - Medical-Dental Office Building (General Urban/Suburban)	1000 Sq. Ft. GFA	45	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.	Best Fit (LOG) $\ln(T) = 0.89\ln(X) + 1.31$	86 78%	24 22%	110
820 - Shopping Center (General Urban/Suburban)	1000 Sq. Ft. GLA	150	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.	Best Fit (LIN) $T = 0.5(X) + 151.78$	141 62%	86 38%	227
932 - High-Turnover (Sit-Down) Restaurant (General Urban/Suburban)	1000 Sq. Ft. GFA	20 ⁽⁰⁾	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.	Average 9.94	109 55%	90 45%	199
934 - Fast-Food Restaurant with Drive-Through Window (General Urban/Suburban)	1000 Sq. Ft. GFA	7	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.	Average 40.19	143 51%	138 49%	281
960 - Super Convenience Market/Gas Station (General Urban/Suburban)	Vehicle Fueling Positions	20	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.	Average 28.08	281 50%	281 50%	562

(0) indicates size out of range.

TRAFFIC REDUCTIONS

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Land Use	Entry Reduction	Adjusted Entry	Exit Reduction	Adjusted Exit
220 - Multifamily Housing (Low-Rise)	0 %	41	0 %	137
720 - Medical-Dental Office Building	0 %	86	0 %	24
820 - Shopping Center	0 %	141	0 %	86
932 - High-Turnover (Sit-Down) Restaurant	0 %	109	0 %	90
934 - Fast-Food Restaurant with Drive-Through Window	0 %	143	0 %	138
960 - Super Convenience Market/Gas Station	0 %	281	0 %	281

INTERNAL TRIPS

220 - Multifamily Housing (Low-Rise)

Exit 137 Demand Exit: 1 % (1)

Entry 41 Demand Entry: 0 % (0)

Balanced:
1Balanced:
0

720 - Medical-Dental Office Building

Demand Entry: 1 % (1) Entry 86

Demand Exit: 1 % (0) Exit 24

220 - Multifamily Housing (Low-Rise)

Exit 137 Demand Exit: 1 % (1)

Entry 41 Demand Entry: 1 % (0)

Balanced:
1Balanced:
0

820 - Shopping Center

Demand Entry: 4 % (6) Entry 141

Demand Exit: 3 % (3) Exit 86

220 - Multifamily Housing (Low-Rise)

Exit 137 Demand Exit: 5 % (7)

Entry 41 Demand Entry: 1 % (0)

Balanced:
5Balanced:
0

932 - High-Turnover (Sit-Down) Restaurant

Demand Entry: 5 % (5) Entry 109

Demand Exit: 1 % (1) Exit 90

220 - Multifamily Housing (Low-Rise)

Exit 137 Demand Exit: 5 % (7)

Entry 41 Demand Entry: 1 % (0)

Balanced:
7Balanced:
0

934 - Fast-Food Restaurant with Drive-Through Window

Demand Entry: 5 % (7) Entry 143

Demand Exit: 1 % (1) Exit 138

220 - Multifamily Housing (Low-Rise)

Exit 137 Demand Exit: 1 % (1)

Entry 41 Demand Entry: 1 % (0)

Balanced:
1Balanced:
0

960 - Super Convenience Market/Gas Station

Demand Entry: 4 % (11) Entry 281

Demand Exit: 3 % (8) Exit 281

720 - Medical-Dental Office Building

Exit 24 Demand Exit: 14 % (3)

Entry 86 Demand Entry: 2 % (2)

Balanced:
3Balanced:
2

820 - Shopping Center

Demand Entry: 16 % (23) Entry 141

Demand Exit: 14 % (12) Exit 86

720 - Medical-Dental Office Building

Exit 24 Demand Exit: 31 % (7)

932 - High-Turnover (Sit-Down) Restaurant

Demand Entry: 11 % (12) Entry 109

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			Balanced: 7			
Entry	86	Demand Entry: 7 % (6)	Balanced: 6	Demand Exit: 15 % (14)	Exit	90
720 - Medical-Dental Office Building			934 - Fast-Food Restaurant with Drive-Through Window			
Exit	24	Demand Exit: 31 % (7)	Balanced: 7	Demand Entry: 11 % (16)	Entry	143
Entry	86	Demand Entry: 7 % (6)	Balanced: 6	Demand Exit: 15 % (21)	Exit	138
720 - Medical-Dental Office Building			960 - Super Convenience Market/Gas Station			
Exit	24	Demand Exit: 14 % (3)	Balanced: 3	Demand Entry: 16 % (45)	Entry	281
Entry	86	Demand Entry: 2 % (2)	Balanced: 2	Demand Exit: 14 % (39)	Exit	281
820 - Shopping Center			932 - High-Turnover (Sit-Down) Restaurant			
Exit	86	Demand Exit: 4 % (3)	Balanced: 3	Demand Entry: 17 % (19)	Entry	109
Entry	141	Demand Entry: 3 % (4)	Balanced: 4	Demand Exit: 5 % (5)	Exit	90
820 - Shopping Center			934 - Fast-Food Restaurant with Drive-Through Window			
Exit	86	Demand Exit: 3 % (3)	Balanced: 3	Demand Entry: 12 % (17)	Entry	143
Entry	141	Demand Entry: 2 % (3)	Balanced: 3	Demand Exit: 3 % (4)	Exit	138
820 - Shopping Center			960 - Super Convenience Market/Gas Station			
Exit	86	Demand Exit: 0 % (0)	Balanced: 0	Demand Entry: 0 % (0)	Entry	281
Entry	141	Demand Entry: 0 % (0)	Balanced: 0	Demand Exit: 0 % (0)	Exit	281
932 - High-Turnover (Sit-Down) Restaurant			934 - Fast-Food Restaurant with Drive-Through Window			
Exit	90	Demand Exit: 0 % (0)	Balanced: 0	Demand Entry: 0 % (0)	Entry	143
Entry	109	Demand Entry: 0 % (0)	Balanced: 0	Demand Exit: 0 % (0)	Exit	138
932 - High-Turnover (Sit-Down) Restaurant			960 - Super Convenience Market/Gas Station			
Exit	90	Demand Exit: 12 % (11)	Balanced: 8	Demand Entry: 3 % (8)	Entry	281
Entry	109	Demand Entry: 3 % (3)	Balanced: 3	Demand Exit: 2 % (6)	Exit	281
934 - Fast-Food Restaurant with Drive-Through Window			960 - Super Convenience Market/Gas Station			
Exit	138	Demand Exit: 12 % (17)	Balanced: 8	Demand Entry: 3 % (8)	Entry	281
Entry	143	Demand Entry: 3 % (4)	Balanced: 4	Demand Exit: 2 % (6)	Exit	281

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220 - Multifamily Housing (Low-Rise)

	Total Trips	Internal Trips						External Trips
		720 - Medical-Dental Office Building	820 - Shopping Center	932 - High-Turnover (Sit-Down) Restaurant	934 - Fast-Food Restaurant with Drive-Through Window	960 - Super Convenience Market/Gas Station	Total	
Entry	41 (100%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	41 (100%)
Exit	137 (100%)	1 (1%)	1 (1%)	5 (4%)	7 (5%)	1 (1%)	15 (11%)	122 (89%)
Total	178 (100%)	1 (1%)	1 (1%)	5 (3%)	7 (4%)	1 (1%)	15 (8%)	163 (92%)

720 - Medical-Dental Office Building

	Total Trips	Internal Trips						External Trips
		220 - Multifamily Housing (Low-Rise)	820 - Shopping Center	932 - High-Turnover (Sit-Down) Restaurant	934 - Fast-Food Restaurant with Drive-Through Window	960 - Super Convenience Market/Gas Station	Total	
Entry	86 (100%)	1 (1%)	2 (2%)	6 (7%)	6 (7%)	2 (2%)	17 (20%)	69 (80%)
Exit	24 (100%)	0 (0%)	3 (13%)	7 (29%)	7 (29%)	3 (13%)	20 (83%)	4 (17%)
Total	110 (100%)	1 (1%)	5 (5%)	13 (12%)	13 (12%)	5 (5%)	37 (34%)	73 (66%)

820 - Shopping Center

	Total Trips	Internal Trips						External Trips
		220 - Multifamily Housing (Low-Rise)	720 - Medical-Dental Office Building	932 - High-Turnover (Sit-Down) Restaurant	934 - Fast-Food Restaurant with Drive-Through Window	960 - Super Convenience Market/Gas Station	Total	
Entry	141 (100%)	1 (1%)	3 (2%)	4 (3%)	3 (2%)	0 (0%)	11 (8%)	130 (92%)
Exit	86 (100%)	0 (0%)	2 (2%)	3 (3%)	3 (3%)	0 (0%)	8 (9%)	78 (91%)
Total	227 (100%)	1 (0%)	5 (2%)	7 (3%)	6 (3%)	0 (0%)	19 (8%)	208 (92%)

932 - High-Turnover (Sit-Down) Restaurant

	Total Trips	Internal Trips						External Trips
		220 - Multifamily Housing (Low-Rise)	720 - Medical-Dental Office Building	820 - Shopping Center	934 - Fast-Food Restaurant with Drive-Through Window	960 - Super Convenience Market/Gas Station	Total	
Entry	109 (100%)	5 (5%)	7 (6%)	3 (3%)	0 (0%)	3 (3%)	18 (17%)	91 (83%)
Exit	90 (100%)	0 (0%)	6 (7%)	4 (4%)	0 (0%)	8 (9%)	18 (20%)	72 (80%)
Total	199 (100%)	5 (3%)	13 (7%)	7 (4%)	0 (0%)	11 (6%)	36 (18%)	163 (82%)

934 - Fast-Food Restaurant with Drive-Through Window

	Total Trips	Internal Trips						External Trips
		220 - Multifamily	720 - Medical-		932 - High-Turnover	960 - Super Convenience	Total	

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		Housing (Low-Rise)	Dental Office Building	820 - Shopping Center	(Sit-Down) Restaurant	Market/Gas Station		
Entry	143 (100%)	7 (5%)	7 (5%)	3 (2%)	0 (0%)	4 (3%)	21 (15%)	122 (85%)
Exit	138 (100%)	0 (0%)	6 (4%)	3 (2%)	0 (0%)	8 (6%)	17 (12%)	121 (88%)
Total	281 (100%)	7 (2%)	13 (5%)	6 (2%)	0 (0%)	12 (4%)	38 (14%)	243 (86%)

960 - Super Convenience Market/Gas Station

		Internal Trips						
Total Trips		220 - Multifamily Housing (Low-Rise)	720 - Medical- Dental Office Building	820 - Shopping Center	932 - High- Turnover (Sit-Down) Restaurant	934 - Fast- Food Restaurant with Drive- Through Window	Total	External Trips
Entry	281 (100%)	1 (0%)	3 (1%)	0 (0%)	8 (3%)	8 (3%)	20 (7%)	261 (93%)
Exit	281 (100%)	0 (0%)	2 (1%)	0 (0%)	3 (1%)	4 (1%)	9 (3%)	272 (97%)
Total	562 (100%)	1 (0%)	5 (1%)	0 (0%)	11 (2%)	12 (2%)	29 (5%)	533 (95%)

EXTERNAL TRIPS

Land Use	External Trips	Pass-by%	Pass-by Trips	Non-pass-by Trips
220 - Multifamily Housing (Low-Rise)	163	0	0	163
720 - Medical-Dental Office Building	73	0	0	73
820 - Shopping Center	208	25	52	156
932 - High-Turnover (Sit-Down) Restaurant	163	40	65	98
934 - Fast-Food Restaurant with Drive-Through Window	243	50	122	121
960 - Super Convenience Market/Gas Station	533	50	267	266

ITE DEVIATION DETAILS**Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.**

Landuse No deviations from ITE.

Methods No deviations from ITE.

External Trips 220 - Multifamily Housing (Low-Rise) (General Urban/Suburban)
ITE does not recommend a particular pass-by% for this case.

720 - Medical-Dental Office Building (General Urban/Suburban)
ITE does not recommend a particular pass-by% for this case.

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Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.

820 - Shopping Center (General Urban/Suburban)
ITE does not recommend a particular pass-by% for this case.

932 - High-Turnover (Sit-Down) Restaurant (General Urban/Suburban)
ITE does not recommend a particular pass-by% for this case.

934 - Fast-Food Restaurant with Drive-Through Window (General Urban/Suburban)
The chosen pass-by% (50) is not provided by ITE. ITE recommends 49.

960 - Super Convenience Market/Gas Station (General Urban/Suburban)
The chosen pass-by% (50) is not provided by ITE. ITE recommends 63.

SUMMARY

Total Entering	801
Total Exiting	756
Total Entering Reduction	0
Total Exiting Reduction	0
Total Entering Internal Capture Reduction	87
Total Exiting Internal Capture Reduction	87
Total Entering Pass-by Reduction	259
Total Exiting Pass-by Reduction	247
Total Entering Non-Pass-by Trips	455
Total Exiting Non-Pass-by Trips	422

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PERIOD SETTING

Analysis Name : PM Peak Hour
Project Name : Baumgarten - Scenario 3
Date: 8/2/2018
State/Province:
Country:
Analyst's Name:
No :
City:
Zip/Postal Code:
Client Name:
Edition: ITE-TGM 10th Edition

Land Use	Independent Variable	Size	Time Period	Method	Entry	Exit	Total
220 - Multifamily Housing (Low-Rise) (General Urban/Suburban)	Dwelling Units	400	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.	Best Fit (LOG) $\ln(T) = 0.89\ln(X) + -0.02$	128 63%	75 37%	203
720 - Medical-Dental Office Building (General Urban/Suburban)	1000 Sq. Ft. GFA	45	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.	Best Fit (LIN) $T = 3.39 (X) + 2.02$	43 28%	112 72%	155
820 - Shopping Center (General Urban/Suburban)	1000 Sq. Ft. GLA	150	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.	Best Fit (LOG) $\ln(T) = 0.74\ln(X) + 2.89$	352 48%	382 52%	734
932 - High-Turnover (Sit-Down) Restaurant (General Urban/Suburban)	1000 Sq. Ft. GFA	20 ⁽⁰⁾	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.	Average 9.77	121 62%	74 38%	195
934 - Fast-Food Restaurant with Drive-Through Window (General Urban/Suburban)	1000 Sq. Ft. GFA	7	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.	Average 32.67	119 52%	110 48%	229
960 - Super Convenience Market/Gas Station (General Urban/Suburban)	Vehicle Fueling Positions	20	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.	Average 22.96	230 50%	229 50%	459

(0) indicates size out of range.

TRAFFIC REDUCTIONS

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Land Use	Entry Reduction	Adjusted Entry	Exit Reduction	Adjusted Exit
220 - Multifamily Housing (Low-Rise)	0 %	128	0 %	75
720 - Medical-Dental Office Building	0 %	43	0 %	112
820 - Shopping Center	0 %	352	0 %	382
932 - High-Turnover (Sit-Down) Restaurant	0 %	121	0 %	74
934 - Fast-Food Restaurant with Drive-Through Window	0 %	119	0 %	110
960 - Super Convenience Market/Gas Station	0 %	230	0 %	229

INTERNAL TRIPS

220 - Multifamily Housing (Low-Rise)

Exit 75 Demand Exit: 2 % (2)

Entry 128 Demand Entry: 2 % (3)

Balanced:
2Balanced:
1**720 - Medical-Dental Office Building**

Demand Entry: 28 % (12) Entry 43

Demand Exit: 1 % (1) Exit 112

220 - Multifamily Housing (Low-Rise)

Exit 75 Demand Exit: 11 % (8)

Entry 128 Demand Entry: 11 % (14)

Balanced:
7Balanced:
14**820 - Shopping Center**

Demand Entry: 2 % (7) Entry 352

Demand Exit: 6 % (23) Exit 382

220 - Multifamily Housing (Low-Rise)

Exit 75 Demand Exit: 5 % (4)

Entry 128 Demand Entry: 4 % (5)

Balanced:
4Balanced:
3**932 - High-Turnover (Sit-Down) Restaurant**

Demand Entry: 3 % (4) Entry 121

Demand Exit: 4 % (3) Exit 74

220 - Multifamily Housing (Low-Rise)

Exit 75 Demand Exit: 5 % (4)

Entry 128 Demand Entry: 4 % (5)

Balanced:
4Balanced:
4**934 - Fast-Food Restaurant with Drive-Through Window**

Demand Entry: 3 % (4) Entry 119

Demand Exit: 4 % (4) Exit 110

220 - Multifamily Housing (Low-Rise)

Exit 75 Demand Exit: 11 % (8)

Entry 128 Demand Entry: 11 % (14)

Balanced:
5Balanced:
14**960 - Super Convenience Market/Gas Station**

Demand Entry: 2 % (5) Entry 230

Demand Exit: 6 % (14) Exit 229

720 - Medical-Dental Office Building

Exit 112 Demand Exit: 10 % (11)

Entry 43 Demand Entry: 15 % (6)

Balanced:
11Balanced:
4**820 - Shopping Center**

Demand Entry: 4 % (14) Entry 352

Demand Exit: 1 % (4) Exit 382

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720 - Medical-Dental Office Building**Exit** 112 Demand Exit: 2 % (2)Balanced:
1**Entry** 43 Demand Entry: 15 % (6)Balanced:
1**932 - High-Turnover (Sit-Down) Restaurant**Demand Entry: 1 % (1) **Entry** 121Demand Exit: 1 % (1) **Exit** 74**720 - Medical-Dental Office Building****Exit** 112 Demand Exit: 2 % (2)Balanced:
1**Entry** 43 Demand Entry: 15 % (6)Balanced:
1**934 - Fast-Food Restaurant with Drive-Through Window**Demand Entry: 1 % (1) **Entry** 119Demand Exit: 1 % (1) **Exit** 110**720 - Medical-Dental Office Building****Exit** 112 Demand Exit: 10 % (11)Balanced:
9**Entry** 43 Demand Entry: 15 % (6)Balanced:
2**960 - Super Convenience Market/Gas Station**Demand Entry: 4 % (9) **Entry** 230Demand Exit: 1 % (2) **Exit** 229**820 - Shopping Center****Exit** 382 Demand Exit: 7 % (27)Balanced:
8**Entry** 352 Demand Entry: 12 % (42)Balanced:
7**932 - High-Turnover (Sit-Down) Restaurant**Demand Entry: 7 % (8) **Entry** 121Demand Exit: 10 % (7) **Exit** 74**820 - Shopping Center****Exit** 382 Demand Exit: 7 % (27)Balanced:
8**Entry** 352 Demand Entry: 12 % (42)Balanced:
11**934 - Fast-Food Restaurant with Drive-Through Window**Demand Entry: 7 % (8) **Entry** 119Demand Exit: 10 % (11) **Exit** 110**820 - Shopping Center****Exit** 382 Demand Exit: 0 % (0)Balanced:
0**Entry** 352 Demand Entry: 0 % (0)Balanced:
0**960 - Super Convenience Market/Gas Station**Demand Entry: 0 % (0) **Entry** 230Demand Exit: 0 % (0) **Exit** 229**932 - High-Turnover (Sit-Down) Restaurant****Exit** 74 Demand Exit: 0 % (0)Balanced:
0**Entry** 121 Demand Entry: 0 % (0)Balanced:
0**934 - Fast-Food Restaurant with Drive-Through Window**Demand Entry: 0 % (0) **Entry** 119Demand Exit: 0 % (0) **Exit** 110**932 - High-Turnover (Sit-Down) Restaurant****Exit** 74 Demand Exit: 7 % (5)Balanced:
5**Entry** 121 Demand Entry: 10 % (12)Balanced:
12**960 - Super Convenience Market/Gas Station**Demand Entry: 7 % (16) **Entry** 230Demand Exit: 12 % (27) **Exit** 229**934 - Fast-Food Restaurant with Drive-Through Window****Exit** 110 Demand Exit: 7 % (8)**960 - Super Convenience Market/Gas Station**Demand Entry: 7 % (16) **Entry** 230<https://itetripngen.org/projectstudy/printpreview?guid=02012e2d7f9853c6e6882fe4674f11ed>

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Balanced: 8
 Entry 119 Demand Entry: 0 % (0) Balanced: 0 Demand Exit: 12 % (27) Exit 229

220 - Multifamily Housing (Low-Rise)

		Internal Trips					Total	External Trips
Total Trips		720 - Medical-Dental Office Building	820 - Shopping Center	932 - High-Turnover (Sit-Down) Restaurant	934 - Fast-Food Restaurant with Drive-Through Window	960 - Super Convenience Market/Gas Station		
Entry	128 (100%)	1 (1%)	14 (11%)	3 (2%)	4 (3%)	14 (11%)	36 (28%)	92 (72%)
Exit	75 (100%)	2 (3%)	7 (9%)	4 (5%)	4 (5%)	5 (7%)	22 (29%)	53 (71%)
Total	203 (100%)	3 (1%)	21 (10%)	7 (3%)	8 (4%)	19 (9%)	58 (29%)	145 (71%)

720 - Medical-Dental Office Building

		Internal Trips					Total	External Trips
Total Trips		220 - Multifamily Housing (Low-Rise)	820 - Shopping Center	932 - High-Turnover (Sit-Down) Restaurant	934 - Fast-Food Restaurant with Drive-Through Window	960 - Super Convenience Market/Gas Station		
Entry	43 (100%)	2 (5%)	4 (9%)	1 (2%)	1 (2%)	2 (5%)	10 (23%)	33 (77%)
Exit	112 (100%)	1 (1%)	11 (10%)	1 (1%)	1 (1%)	9 (8%)	23 (21%)	89 (79%)
Total	155 (100%)	3 (2%)	15 (10%)	2 (1%)	2 (1%)	11 (7%)	33 (21%)	122 (79%)

820 - Shopping Center

		Internal Trips					Total	External Trips
Total Trips		220 - Multifamily Housing (Low-Rise)	720 - Medical-Dental Office Building	932 - High-Turnover (Sit-Down) Restaurant	934 - Fast-Food Restaurant with Drive-Through Window	960 - Super Convenience Market/Gas Station		
Entry	352 (100%)	7 (2%)	11 (3%)	7 (2%)	11 (3%)	0 (0%)	36 (10%)	316 (90%)
Exit	382 (100%)	14 (4%)	4 (1%)	8 (2%)	8 (2%)	0 (0%)	34 (9%)	348 (91%)
Total	734 (100%)	21 (3%)	15 (2%)	15 (2%)	19 (3%)	0 (0%)	70 (10%)	664 (90%)

932 - High-Turnover (Sit-Down) Restaurant

		Internal Trips					Total	External Trips
Total Trips		220 - Multifamily Housing (Low-Rise)	720 - Medical-Dental Office Building	820 - Shopping Center	934 - Fast-Food Restaurant with Drive-Through Window	960 - Super Convenience Market/Gas Station		
Entry	121 (100%)	4 (3%)	1 (1%)	8 (7%)	0 (0%)	12 (10%)	25 (21%)	96 (79%)
Exit	74 (100%)	3 (4%)	1 (1%)	7 (9%)	0 (0%)	5 (7%)	16 (22%)	58 (78%)
Total	195 (100%)	7 (4%)	2 (1%)	15 (8%)	0 (0%)	17 (9%)	41 (21%)	154 (79%)

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934 - Fast-Food Restaurant with Drive-Through Window

		Internal Trips					Total	External Trips
Total Trips		220 - Multifamily Housing (Low-Rise)	720 - Medical-Dental Office Building	820 - Shopping Center	932 - High-Turnover (Sit-Down) Restaurant	960 - Super Convenience Market/Gas Station		
Entry	119 (100%)	4 (3%)	1 (1%)	8 (7%)	0 (0%)	0 (0%)	13 (11%)	106 (89%)
Exit	110 (100%)	4 (4%)	1 (1%)	11 (10%)	0 (0%)	8 (7%)	24 (22%)	86 (78%)
Total	229 (100%)	8 (3%)	2 (1%)	19 (8%)	0 (0%)	8 (3%)	37 (16%)	192 (84%)

960 - Super Convenience Market/Gas Station

		Internal Trips					Total	External Trips
Total Trips		220 - Multifamily Housing (Low-Rise)	720 - Medical-Dental Office Building	820 - Shopping Center	932 - High-Turnover (Sit-Down) Restaurant	934 - Fast-Food Restaurant with Drive-Through Window		
Entry	230 (100%)	5 (2%)	9 (4%)	0 (0%)	5 (2%)	8 (3%)	27 (12%)	203 (88%)
Exit	229 (100%)	14 (6%)	2 (1%)	0 (0%)	12 (5%)	0 (0%)	28 (12%)	201 (88%)
Total	459 (100%)	19 (4%)	11 (2%)	0 (0%)	17 (4%)	8 (2%)	55 (12%)	404 (88%)

EXTERNAL TRIPS

Land Use	External Trips	Pass-by%	Pass-by Trips	Non-pass-by Trips
220 - Multifamily Housing (Low-Rise)	145	0	0	145
720 - Medical-Dental Office Building	122	0	0	122
820 - Shopping Center	664	25	166	498
932 - High-Turnover (Sit-Down) Restaurant	154	40	62	92
934 - Fast-Food Restaurant with Drive-Through Window	192	50	96	96
960 - Super Convenience Market/Gas Station	404	50	202	202

ITE DEVIATION DETAILS**Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.**

Landuse No deviations from ITE.

<https://itetripgen.org/projectstudy/printpreview?guid=02012e2d7f9853c6e6882fe4674f11ed>

08/02/2018

Print Preview

Page 6 of 6

Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.

Methods No deviations from ITE.

External Trips 220 - Multifamily Housing (Low-Rise) (General Urban/Suburban)
ITE does not recommend a particular pass-by% for this case.

720 - Medical-Dental Office Building (General Urban/Suburban)
ITE does not recommend a particular pass-by% for this case.

820 - Shopping Center (General Urban/Suburban)
The chosen pass-by% (25) is not provided by ITE. ITE recommends 34.

932 - High-Turnover (Sit-Down) Restaurant (General Urban/Suburban)
The chosen pass-by% (40) is not provided by ITE. ITE recommends 43.

960 - Super Convenience Market/Gas Station (General Urban/Suburban)
The chosen pass-by% (50) is not provided by ITE. ITE recommends 66.

SUMMARY

Total Entering	993
Total Exiting	982
Total Entering Reduction	0
Total Exiting Reduction	0
Total Entering Internal Capture Reduction	147
Total Exiting Internal Capture Reduction	147
Total Entering Pass-by Reduction	272
Total Exiting Pass-by Reduction	254
Total Entering Non-Pass-by Trips	574
Total Exiting Non-Pass-by Trips	581

<https://itetripgen.org/projectstudy/printpreview?guid=02012e2d7f9853c6e6882fe4674f11ed>

08/02/2018

Appendix D: Turning Movement Exhibits





Appendix E: Raw Intersections Turning Movement Counts

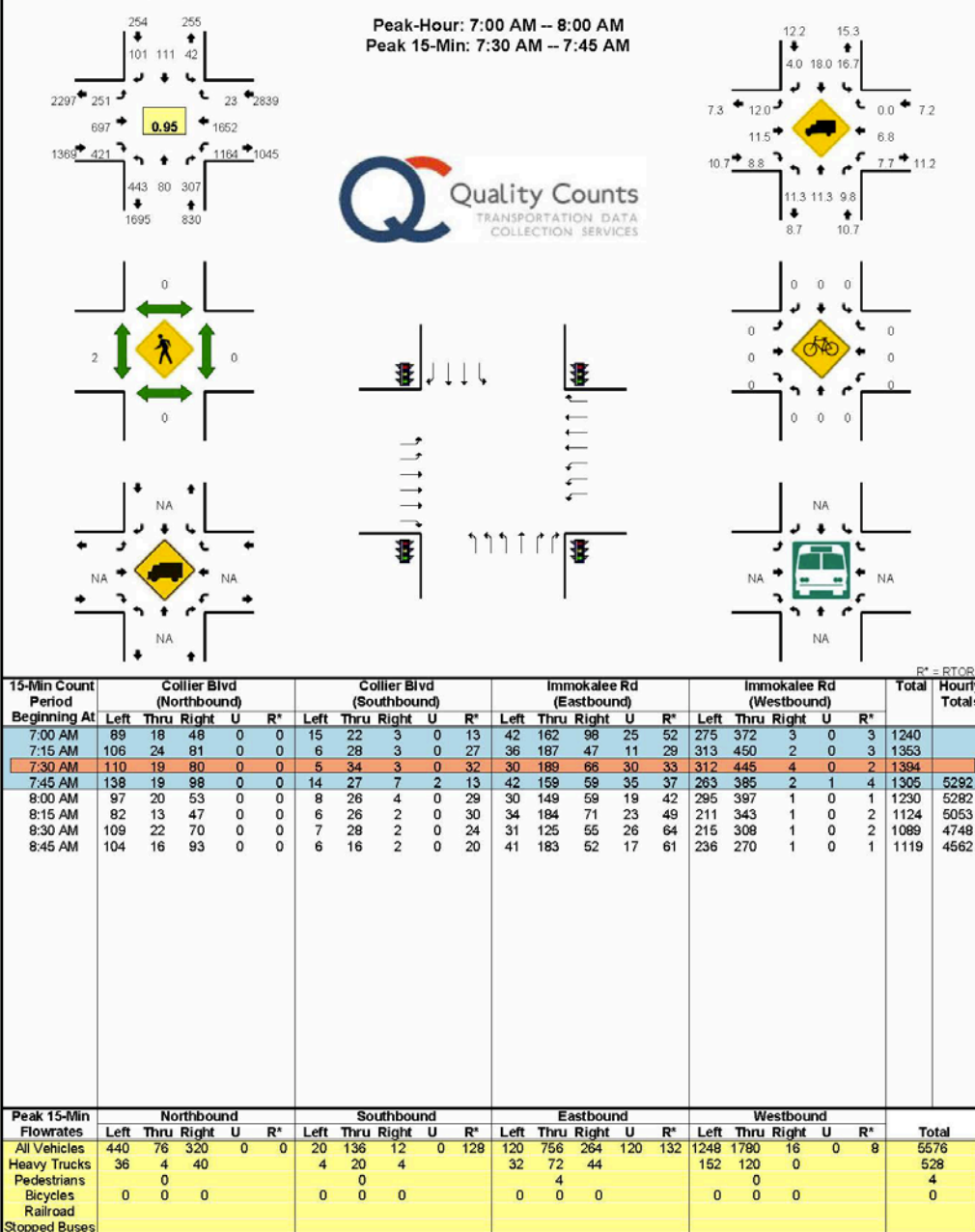
Type of peak hour being reported: Intersection Peak Method for determining peak hour: Total Entering Volume

LOCATION: Collier Blvd – Immokalee Rd

QC JOB #: 14599403

CITY/STATE: Naples, FL

DATE: Thu, Feb 01 2018



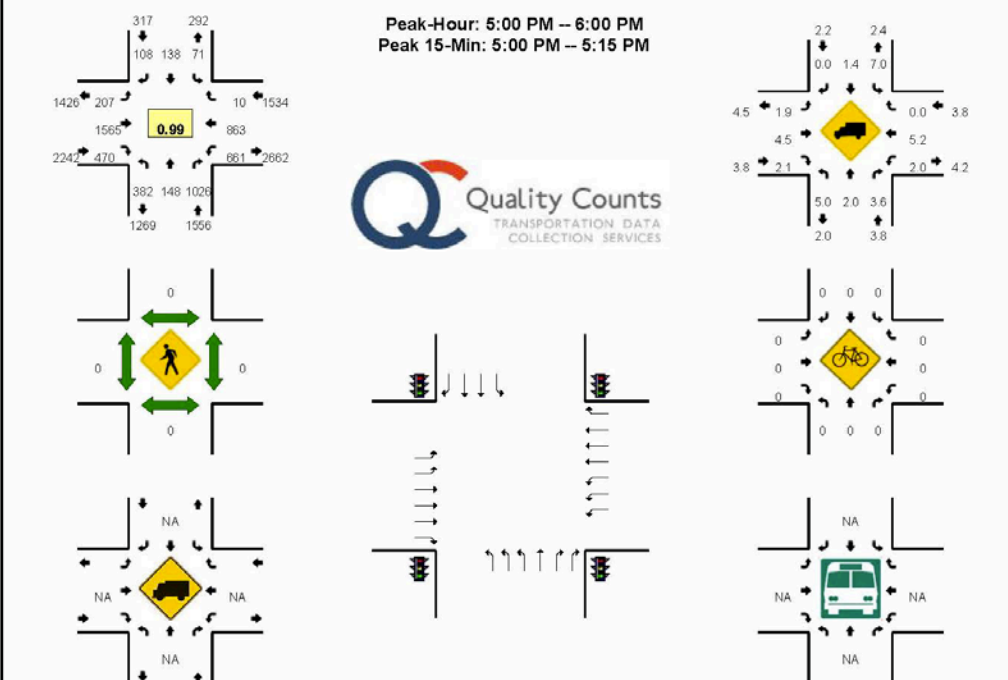
Report generated on 2/7/2018 2:48 PM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>) 1-877-580-2212

Type of peak hour being reported: Intersection Peak Method for determining peak hour: Total Entering Volume

LOCATION: Collier Blvd -- Immokalee Rd
CITY/STATE: Naples, FL

QC JOB #: 14599402
DATE: Wed, Jan 31 2018



15-Min Count Period Beginning At	Collier Blvd (Northbound)					Collier Blvd (Southbound)					Immokalee Rd (Eastbound)					Immokalee Rd (Westbound)					Total	Hourly Totals
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*		
4:00 PM	130	31	195	0	0	16	28	10	0	25	38	354	70	18	39	171	251	5	0	0	1381	
4:15 PM	109	23	187	0	0	23	32	1	0	24	28	322	55	14	45	184	234	1	0	0	1282	
4:30 PM	91	32	204	0	0	21	26	7	0	29	42	347	70	28	46	168	262	3	0	0	1376	
4:45 PM	78	12	189	0	0	23	35	3	0	24	34	326	61	28	35	176	181	1	0	0	1206	5245
5:00 PM	122	44	247	0	0	23	34	2	0	36	38	337	67	23	40	183	234	1	0	0	1431	5295
5:15 PM	82	26	257	0	0	14	37	4	0	23	35	410	79	19	45	170	219	3	0	0	1423	5436
5:30 PM	99	41	248	0	0	19	47	2	0	18	37	400	61	20	72	126	172	2	0	0	1364	5424
5:45 PM	79	37	274	0	0	15	20	3	0	20	24	418	51	11	55	182	238	4	0	0	1431	5649
Peak 15-Min Flowrates	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Total	
All Vehicles	488	176	988	0	0	92	136	8	0	144	152	1348	268	92	160	732	936	4	0	0	5724	
Heavy Trucks	20	8	56			12	0	0			16	72	8			20	64	0			276	
Pedestrians	0	0	0			0	0	0			0	0	0			0	0	0			0	
Bicycles	0	0	0			0	0	0			0	0	0			0	0	0			0	
Railroad																						
Stopped Buses																						

Comments:

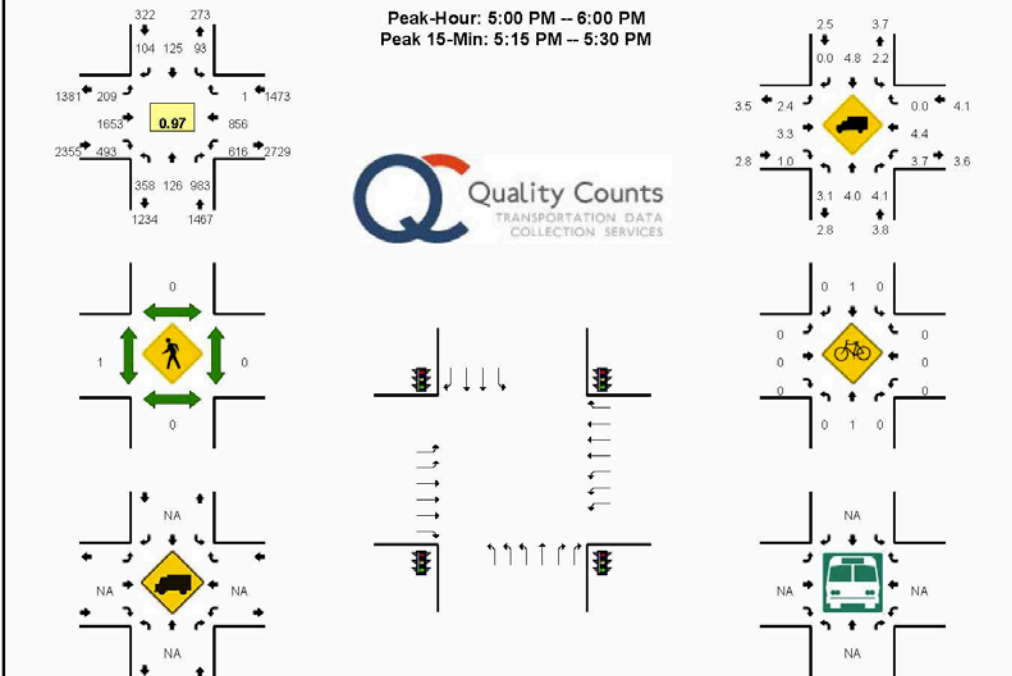
Report generated on 2/7/2018 2:48 PM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>) 1-877-580-2212

Type of peak hour being reported: Intersection Peak Method for determining peak hour: Total Entering Volume

LOCATION: Collier Blvd – Immokalee Rd
CITY/STATE: Naples, FL

QC JOB #: 14599404
DATE: Thu, Feb 01 2018



15-Min Count Period Beginning At	Collier Blvd (Northbound)					Collier Blvd (Southbound)					Immokalee Rd (Eastbound)					Immokalee Rd (Westbound)					Total	Hourly Totals
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*		
4:00 PM	172	41	198	0	0	17	29	4	0	22	37	299	77	19	43	241	288	0	0	0	1487	
4:15 PM	92	31	200	0	0	16	40	5	0	20	39	372	85	25	34	168	232	4	0	0	1363	
4:30 PM	78	27	197	0	0	25	27	6	0	26	33	323	72	22	43	176	224	1	0	0	1280	
4:45 PM	110	34	227	0	0	15	25	0	0	23	38	358	48	18	65	180	229	1	0	0	1371	5501
5:00 PM	98	34	216	0	0	21	33	0	0	27	32	426	65	10	48	146	221	1	0	0	1378	5392
5:15 PM	73	28	226	0	0	20	30	4	0	15	43	453	89	19	65	178	200	0	0	0	1443	5472
5:30 PM	102	30	258	0	0	25	40	0	0	26	45	365	62	17	71	135	229	0	0	0	1405	5597
5:45 PM	85	34	283	0	0	27	22	5	0	27	26	409	53	17	40	157	206	0	0	0	1391	5617
Peak 15-Min Flowrates	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Total	
All Vehicles	292	112	904	0	0	80	120	16	0	60	172	1812	356	76	260	712	800	0	0	0	5772	
Heavy Trucks	8	12	36			4	8	0			0	60	4			24	40	0			196	
Pedestrians	0					0					0					0					0	
Bicycles	0					0					0					0					0	
Railroad																						
Stopped Buses																						

Comments:

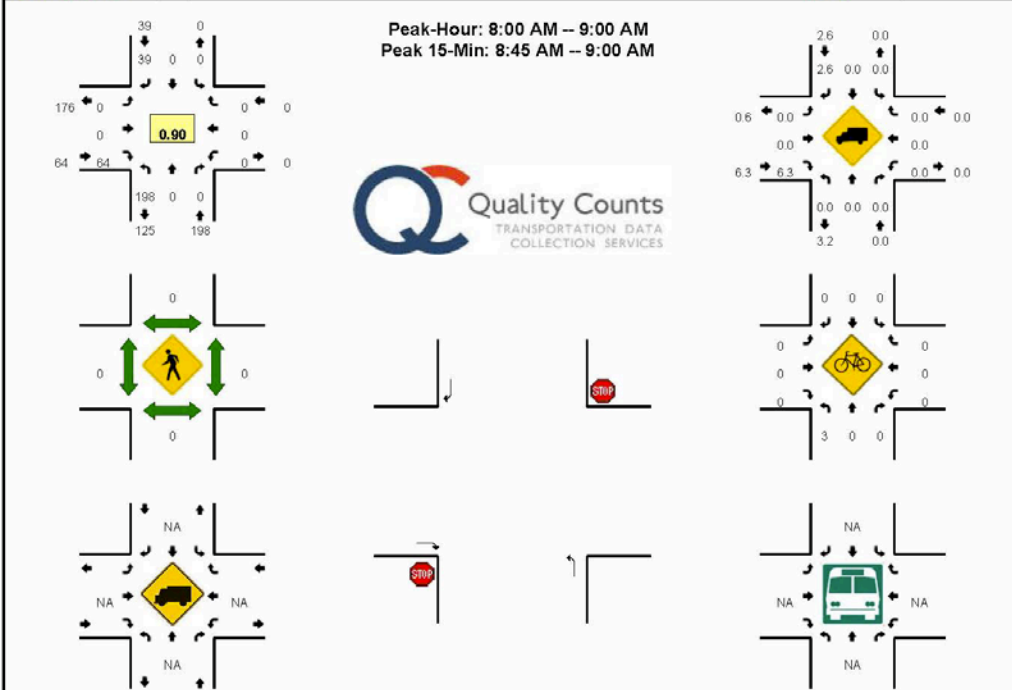
Report generated on 2/7/2018 2:48 PM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>) 1-877-580-2212

Collier Blvd. and Pebblebrooke Center Driveway Intersection

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Collier Blvd -- Shopping Center (Turns Only)
CITY/STATE: Naples, FLQC JOB #: 14599405
DATE: Wed, Jan 31 2018

R* = RTOR

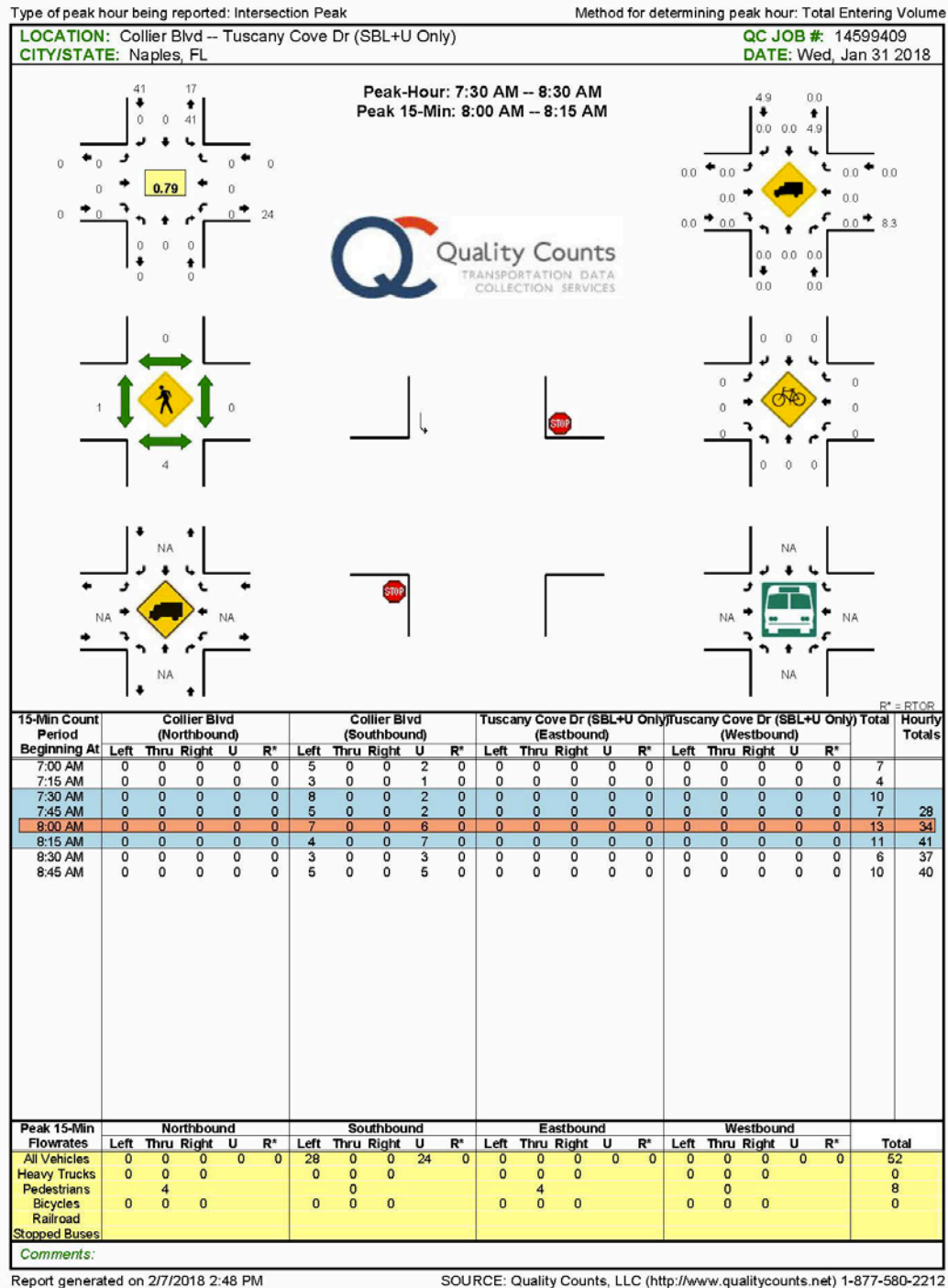
15-Min Count Period	Collier Blvd (Northbound)					Collier Blvd (Southbound)					Shopping Center (Turns Only) (Eastbound)					Shopping Center (Turns Only) (Westbound)					Total	Hourly Totals
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*		
Beginning At																						
7:00 AM	6	0	0	13	0	0	0	3	0	0	0	0	11	0	0	0	0	0	0	0	33	
7:15 AM	15	0	0	11	0	0	0	2	0	0	0	0	8	0	0	0	0	0	0	0	36	
7:30 AM	17	0	0	14	0	0	0	4	0	0	0	0	7	0	0	0	0	0	0	0	42	
7:45 AM	24	0	0	5	0	0	0	5	0	0	0	0	8	0	0	0	0	0	0	0	42	153
8:00 AM	26	0	0	15	0	0	0	5	0	0	0	0	17	0	0	0	0	0	0	0	63	183
8:15 AM	33	0	0	20	0	0	0	10	0	0	0	0	16	0	0	0	0	0	0	0	79	226
8:30 AM	37	0	0	15	0	0	0	11	0	0	0	0	12	0	0	0	0	0	0	0	75	259
8:45 AM	41	0	0	11	0	0	0	13	0	0	0	0	19	0	0	0	0	0	0	0	84	301
				</																		

Comments:

Report generated on 2/7/2018 2:48 PM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>) 1-877-580-2212

Collier Blvd. and Tuscany Cove Dr. Intersection – SB Left and U turns only



Type of peak hour being reported: Intersection Peak

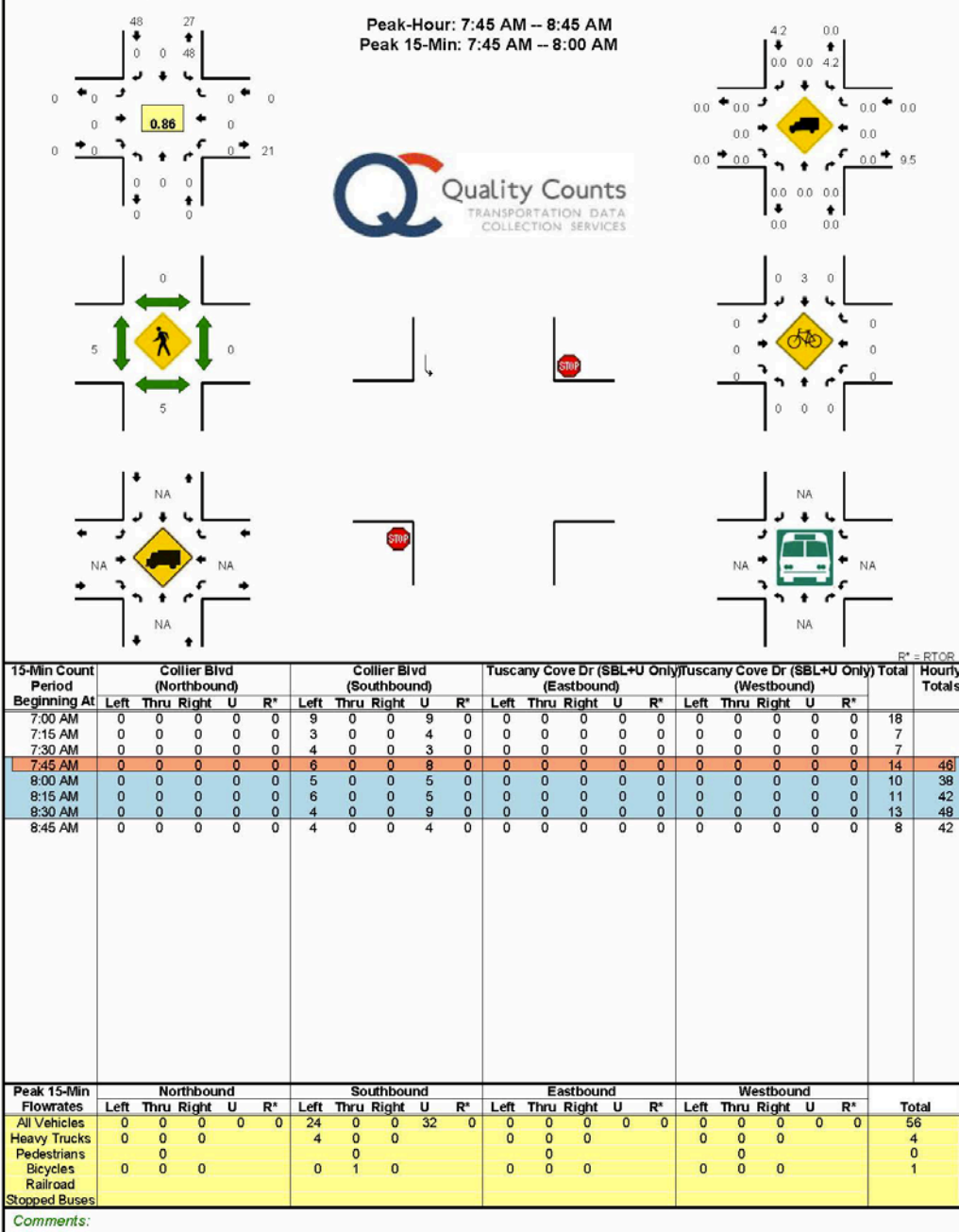
Method for determining peak hour: Total Entering Volume

LOCATION: Collier Blvd – Tuscany Cove Dr (SBL+U Only)

QC JOB #: 14599411

CITY/STATE: Naples, FL

DATE: Thu, Feb 01 2018

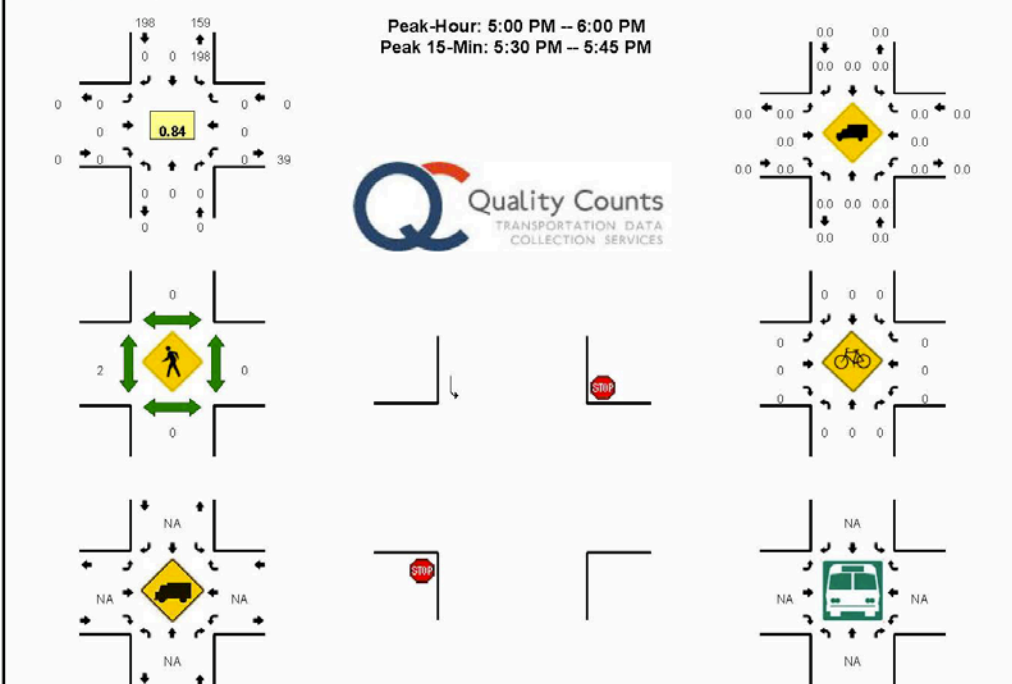


Report generated on 2/7/2018 2:48 PM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Collier Blvd – Tuscany Cove Dr (SBL+U Only)**QC JOB #:** 14599410**CITY/STATE:** Naples, FL**DATE:** Wed, Jan 31 2018

15-Min Count Period Beginning At	Collier Blvd (Northbound)					Collier Blvd (Southbound)					Tuscany Cove Dr (SBL+U Only) (Eastbound)					Tuscany Cove Dr (SBL+U Only) (Westbound)					Total	Hourly Totals
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*		
4:00 PM	0	0	0	0	0	15	0	0	34	0	0	0	0	0	0	0	0	0	0	0	49	
4:15 PM	0	0	0	0	0	3	0	0	44	0	0	0	0	0	0	0	0	0	0	0	47	
4:30 PM	0	0	0	0	0	11	0	0	34	0	0	0	0	0	0	0	0	0	0	0	45	
4:45 PM	0	0	0	0	0	12	0	0	33	0	0	0	0	0	0	0	0	0	0	0	45	196
5:00 PM	0	0	0	0	0	8	0	0	45	0	0	0	0	0	0	0	0	0	0	0	53	190
5:15 PM	0	0	0	0	0	6	0	0	28	0	0	0	0	0	0	0	0	0	0	0	34	177
5:30 PM	0	0	0	0	0	13	0	0	46	0	0	0	0	0	0	0	0	0	0	0	59	191
5:45 PM	0	0	0	0	0	12	0	0	40	0	0	0	0	0	0	0	0	0	0	0	52	198
Peak 15-Min Flowrates	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Total	
All Vehicles	0	0	0	0	0	52	0	0	184	0	0	0	0	0	0	0	0	0	0	0	236	
Heavy Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Bicycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Railroad	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Comments:

Report generated on 2/7/2018 2:48 PM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>) 1-877-580-2212

Type of peak hour being reported: Intersection Peak
Method for determining peak hour: Total Entering Volume

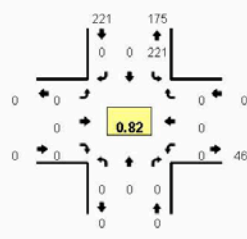

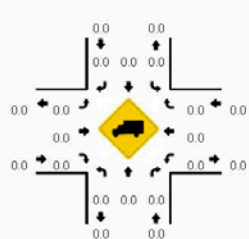
LOCATION: Collier Blvd -- Tuscany Cove Dr (SBL+U Only)

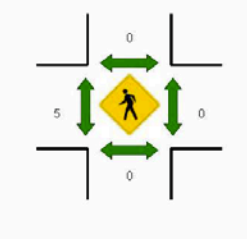

CITY/STATE: Naples, FL

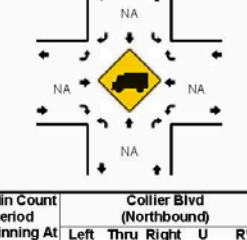
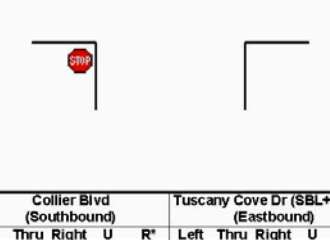
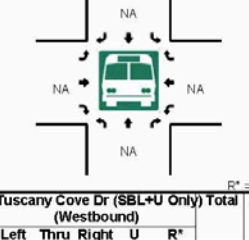
QC JOB #: 14599412

DATE: Thu, Feb 01 2018

Peak-Hour: 4:15 PM -- 5:15 PM
Peak 15-Min: 5:00 PM -- 5:15 PM

R* = RTOR

15-Min Count Period Beginning At	Collier Blvd (Northbound)					Collier Blvd (Southbound)					Tuscany Cove Dr (SBL+U Only) (Eastbound)					Tuscany Cove Dr (SBL+U Only) (Westbound)					Total	Hourly Totals
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*		
4:00 PM	0	0	0	0	0	12	0	0	39	0	0	0	0	0	0	0	0	0	0	0	51	
4:15 PM	0	0	0	0	0	12	0	0	43	0	0	0	0	0	0	0	0	0	0	0	56	
4:30 PM	0	0	0	0	0	14	0	0	34	0	0	0	0	0	0	0	0	0	0	0	48	
4:45 PM	0	0	0	0	0	12	0	0	39	0	0	0	0	0	0	0	0	0	0	0	51	205
5:00 PM	0	0	0	0	0	8	0	0	59	0	0	0	0	0	0	0	0	0	0	0	67	221
5:15 PM	0	0	0	0	0	15	0	0	31	0	0	0	0	0	0	0	0	0	0	0	46	212
5:30 PM	0	0	0	0	0	12	0	0	41	0	0	0	0	0	0	0	0	0	0	0	53	217
5:45 PM	0	0	0	0	0	6	0	0	30	0	0	0	0	0	0	0	0	0	0	0	36	202

Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	
All Vehicles	0	0	0	0	0	32	0	0	236	0	0	0	0	0	0	0	0	0	0	0	268
Heavy Trucks	0	0	0			0	0	0			0	0	0			0	0	0			0
Pedestrians	0					0					0					0					0
Bicycles	0	1	0			0	2	0			0	0	0			0	0	0			3
Railroad																					
Stopped Buses																					

Comments:

Report generated on 2/7/2018 2:48 PM SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2211

Appendix F: FDOT 2016 Peak Season Factor Category Report – Excerpt

2016 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL
 CATEGORY: 0300 COLLIER COUNTYWIDE

WEEK	DATES	SF	MOCF: 0.87 PSCF
1	01/01/2016 - 01/02/2016	0.98	1.13
2	01/03/2016 - 01/09/2016	0.95	1.09
* 3	01/10/2016 - 01/16/2016	0.91	1.05
* 4	01/17/2016 - 01/23/2016	0.89	1.02
* 5	01/24/2016 - 01/30/2016	0.88	1.01
* 6	01/31/2016 - 02/06/2016	0.87	1.00
* 7	02/07/2016 - 02/13/2016	0.85	0.98
* 8	02/14/2016 - 02/20/2016	0.84	0.97
* 9	02/21/2016 - 02/27/2016	0.84	0.97
*10	02/28/2016 - 03/05/2016	0.84	0.97
*11	03/06/2016 - 03/12/2016	0.84	0.97
*12	03/13/2016 - 03/19/2016	0.84	0.97
*13	03/20/2016 - 03/26/2016	0.86	0.99
*14	03/27/2016 - 04/02/2016	0.89	1.02
*15	04/03/2016 - 04/09/2016	0.91	1.05
16	04/10/2016 - 04/16/2016	0.94	1.08
17	04/17/2016 - 04/23/2016	0.96	1.10
18	04/24/2016 - 04/30/2016	0.98	1.13
19	05/01/2016 - 05/07/2016	1.00	1.15
20	05/08/2016 - 05/14/2016	1.02	1.17
21	05/15/2016 - 05/21/2016	1.05	1.21
22	05/22/2016 - 05/28/2016	1.07	1.23
23	05/29/2016 - 06/04/2016	1.10	1.26
24	06/05/2016 - 06/11/2016	1.13	1.30
25	06/12/2016 - 06/18/2016	1.16	1.33
26	06/19/2016 - 06/25/2016	1.15	1.32
27	06/26/2016 - 07/02/2016	1.15	1.32
28	07/03/2016 - 07/09/2016	1.15	1.32
29	07/10/2016 - 07/16/2016	1.14	1.31
30	07/17/2016 - 07/23/2016	1.15	1.32
31	07/24/2016 - 07/30/2016	1.15	1.32
32	07/31/2016 - 08/06/2016	1.15	1.32
33	08/07/2016 - 08/13/2016	1.16	1.33
34	08/14/2016 - 08/20/2016	1.16	1.33
35	08/21/2016 - 08/27/2016	1.16	1.33
36	08/28/2016 - 09/03/2016	1.17	1.34
37	09/04/2016 - 09/10/2016	1.17	1.34
38	09/11/2016 - 09/17/2016	1.18	1.36
39	09/18/2016 - 09/24/2016	1.15	1.32
40	09/25/2016 - 10/01/2016	1.13	1.30
41	10/02/2016 - 10/08/2016	1.10	1.26
42	10/09/2016 - 10/15/2016	1.08	1.24
43	10/16/2016 - 10/22/2016	1.05	1.21
44	10/23/2016 - 10/29/2016	1.03	1.18
45	10/30/2016 - 11/05/2016	1.01	1.16
46	11/06/2016 - 11/12/2016	0.99	1.14
47	11/13/2016 - 11/19/2016	0.97	1.11
48	11/20/2016 - 11/26/2016	0.97	1.11
49	11/27/2016 - 12/03/2016	0.98	1.13
50	12/04/2016 - 12/10/2016	0.98	1.13
51	12/11/2016 - 12/17/2016	0.98	1.13
52	12/18/2016 - 12/24/2016	0.95	1.09
53	12/25/2016 - 12/31/2016	0.91	1.05

* PEAK SEASON

21-FEB-2017 10:54:33

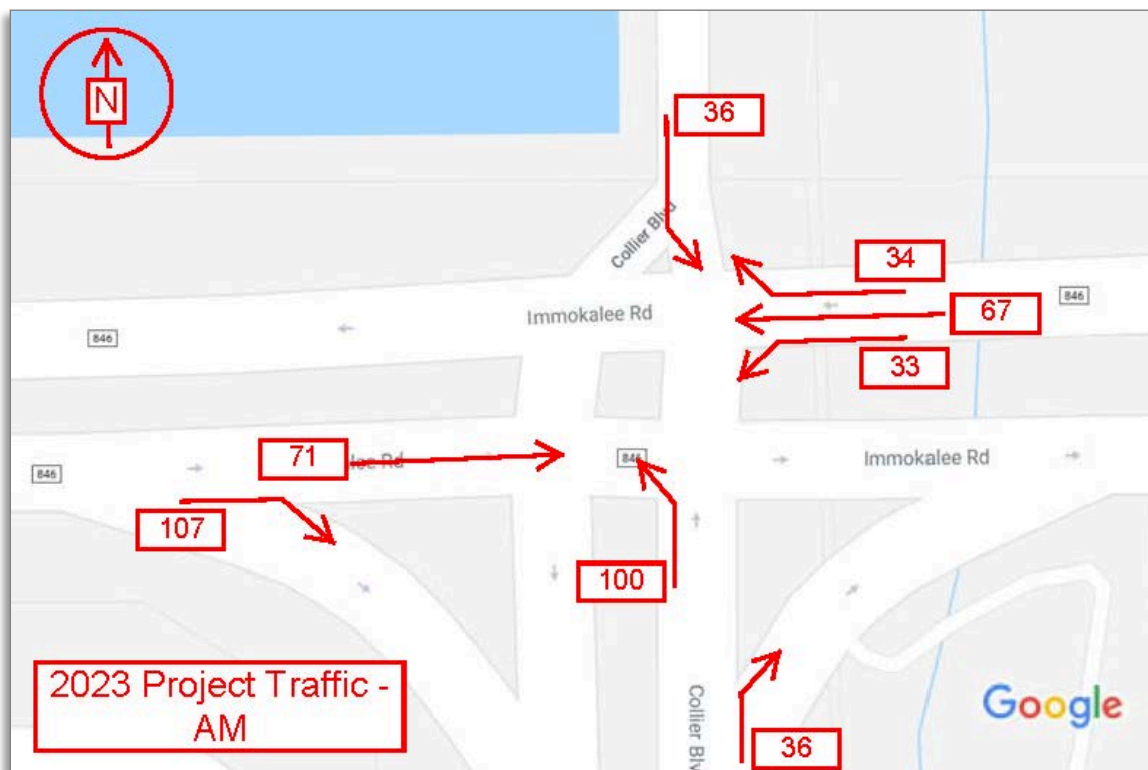
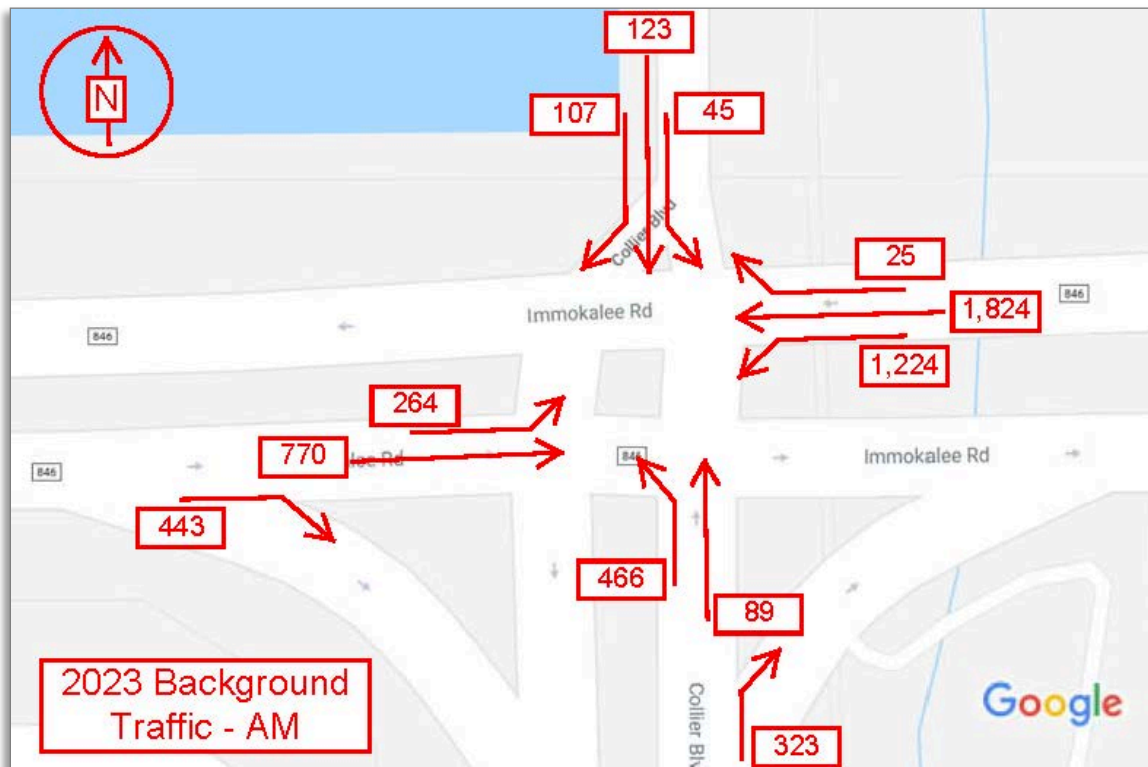
830UPD

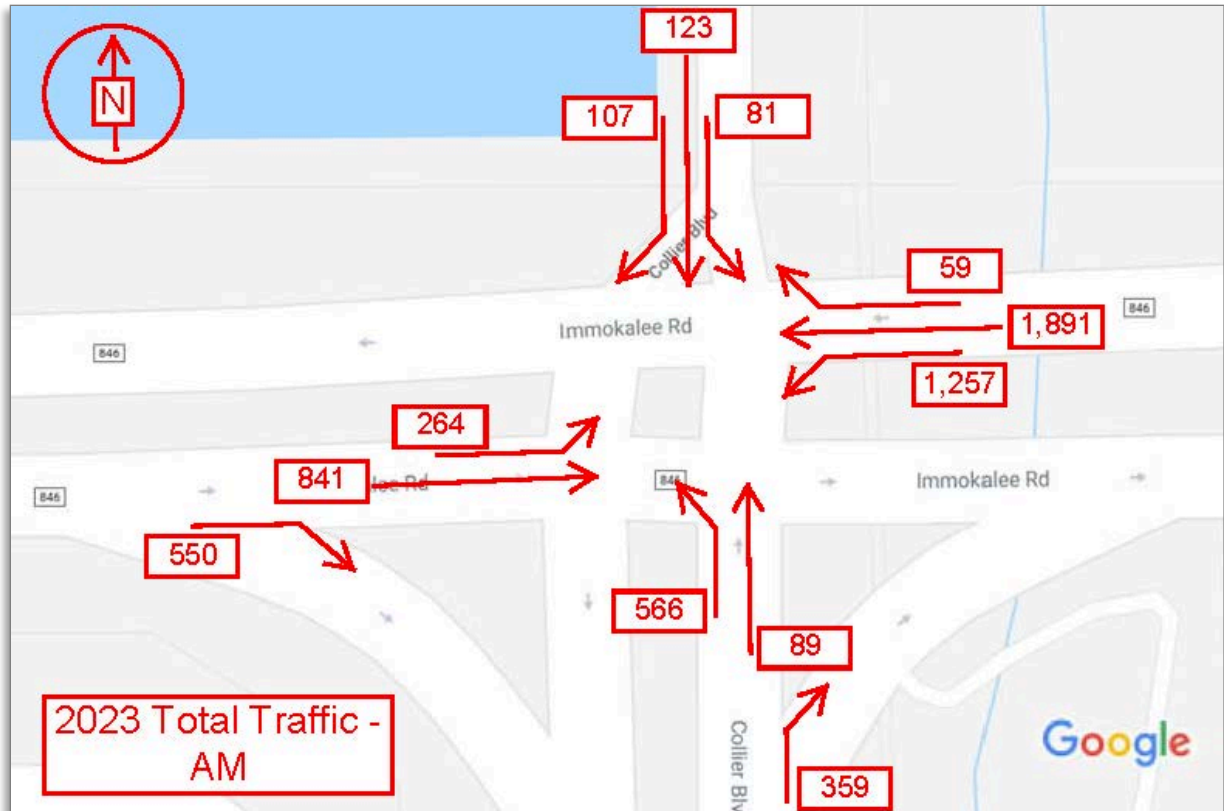
1_0300_PKSEASON.TXT

Appendix G: Intersections Projected Traffic at Buildout Conditions



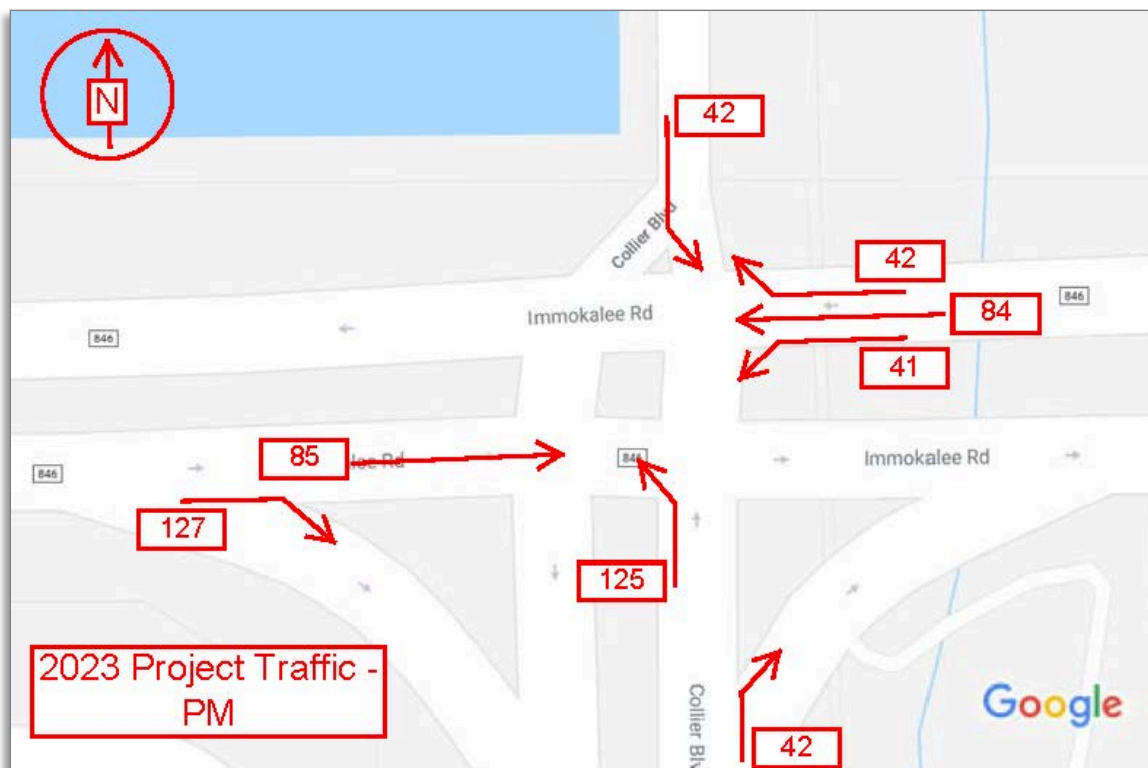
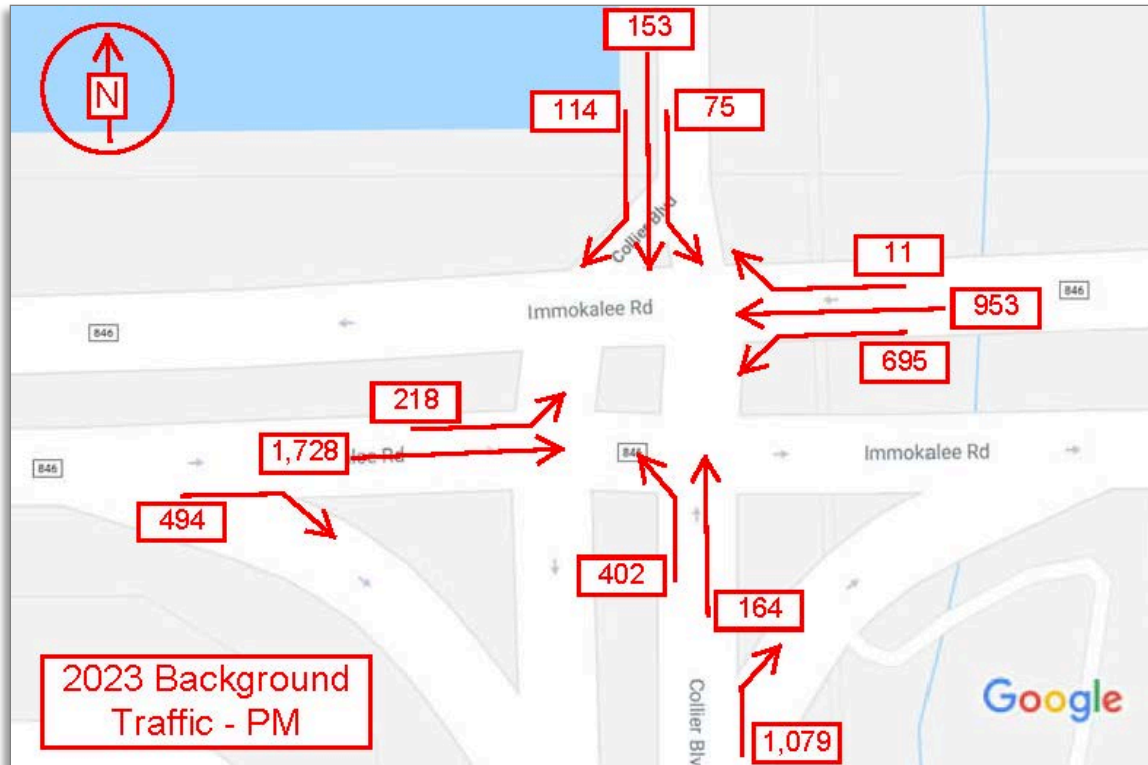
Collier Blvd. and Immokalee Rd. Intersection

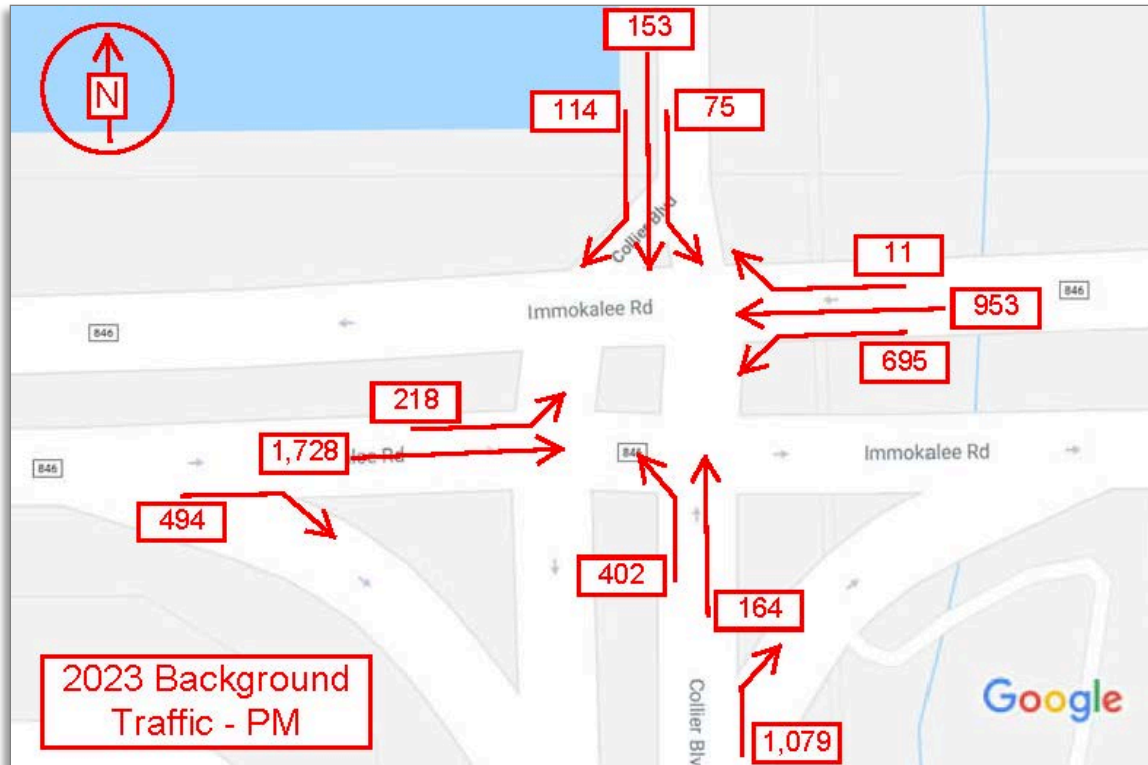




PROJECT - INTERSECTION TURNING MOVEMENT COUNTS - WITH FULL OPENING (SIGNAL) AT PEBBLEBROOKE AND CR 951
 INTERSECTION - COLLIER BLVD AND IMMOKALEE RD
 COUNT DATA - DATE - 02-01-2018
 COUNT DATA - TIME - 7.00 AM - 9.00 AM
 PEAK HOUR - 7.00 AM - 8.00 AM

AM PEAK HOUR FUTURE TRAFFIC																
	IMMOKALEE BOULEVARD								COLLIER BOULEVARD							
	WESTBOUND				EASTBOUND				SOUTHBOUND				NORTHBOUND			
	LEFT	THRU	RIGHT	TOTAL	LEFT	THRU	RIGHT	TOTAL	LEFT	THRU	RIGHT	TOTAL	LEFT	THRU	RIGHT	TOTAL
TMCs	1,164	1,652	23	2,839	251	697	421	1,369	42	111	101	254	443	80	307	830
PSCF	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
2018 BACKGROUND VOLUME	1,164	1,652	23	2,839	251	697	421	1,369	42	111	101	254	443	80	307	830
GROWTH RATE	1.0%	2.0%	1.0%		1.0%	2.0%	1.0%		1.0%	2.0%	1.0%		1.0%	2.0%	1.0%	
YEARS TO BUILD-OUT	5	5	5		5	5	5		5	5	5		5	5	5	
2023 BACKGROUND	1,224	1,824	25	3,073	264	770	443	1,477	45	123	107	275	466	89	323	878
PROJECT TURNING VOLUMES	33	67	34	134	0	71	107	178	36	0	0	36	100	0	36	136
2023 BACKGROUND + PROJECT	1,257	1,891	59	3,207	264	841	550	1,655	81	123	107	311	566	89	359	1,014

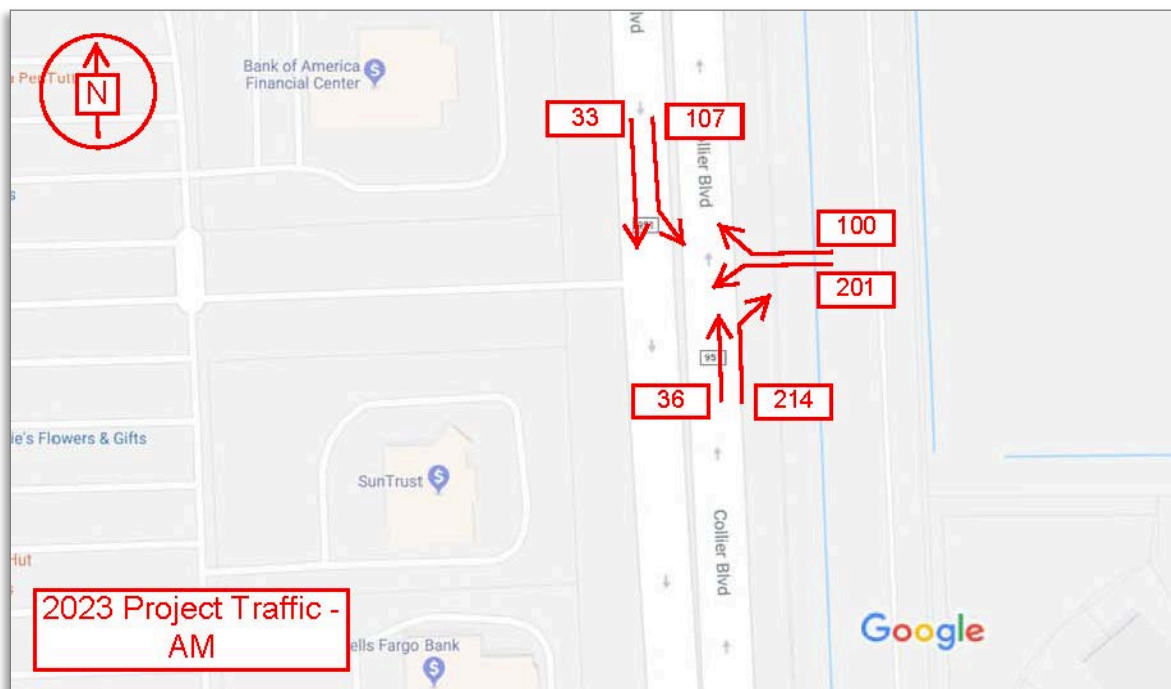
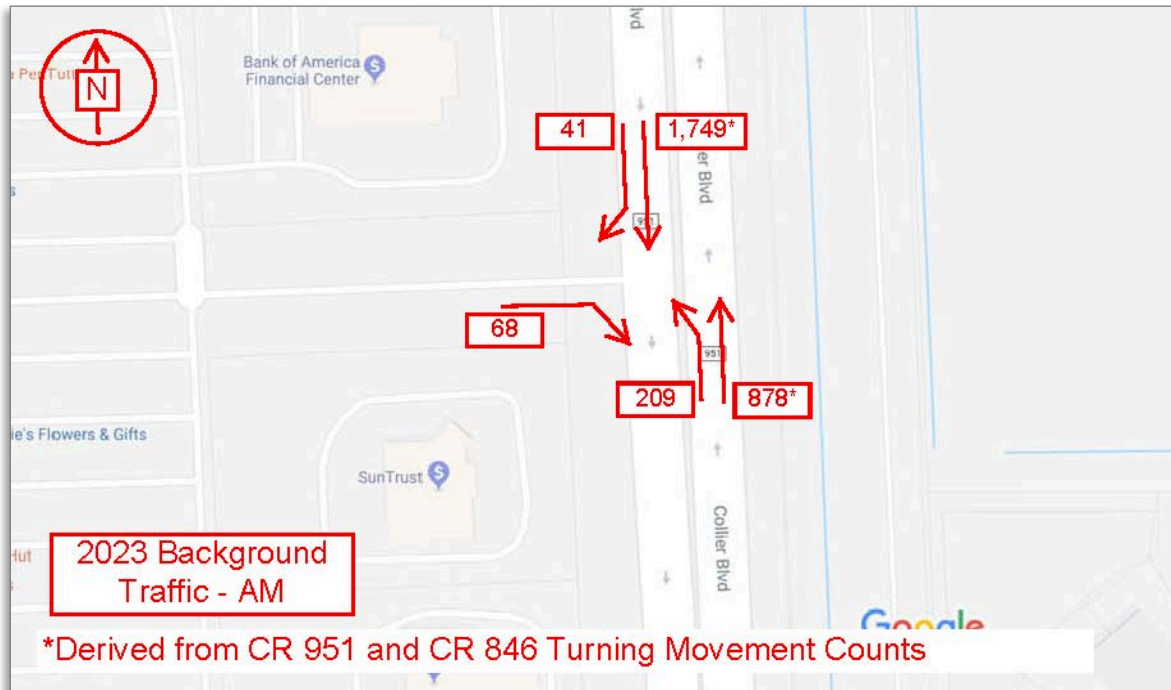


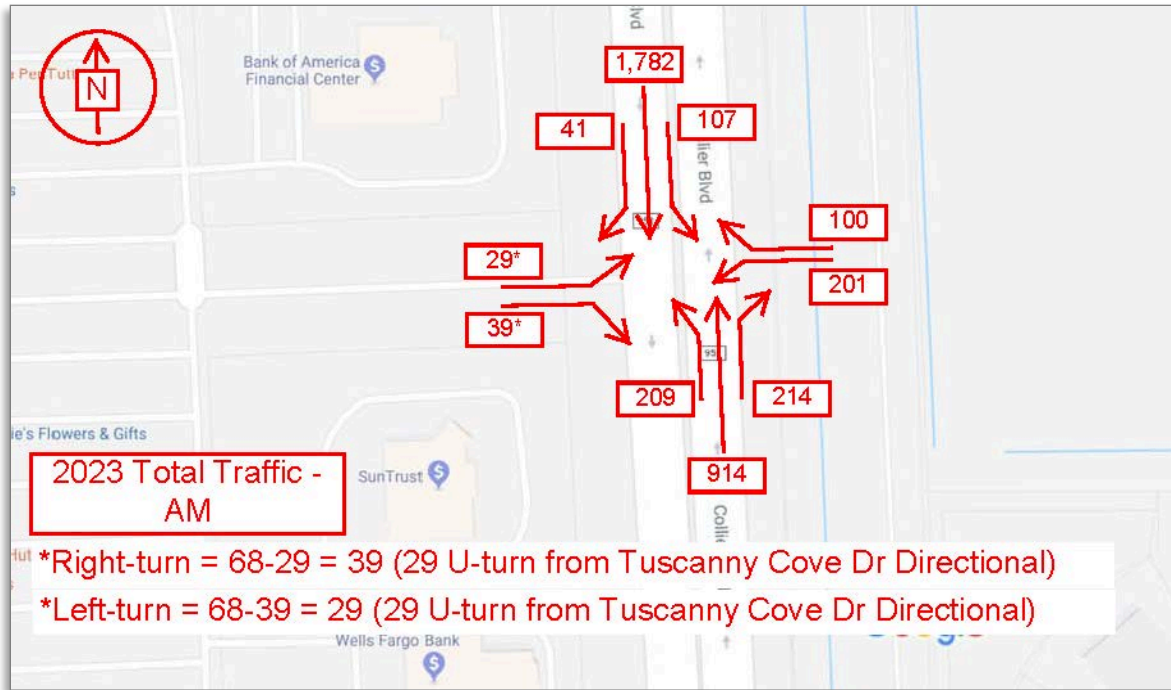


PROJECT - INTERSECTION TURNING MOVEMENT COUNTS - WITH FULL OPENING (SIGNAL) AT PEBBLEBROOKE AND CR 951
 INTERSECTION - COLLIER BLVD AND IMMOKALEE RD
 COUNT DATA - DATE - 01-31-2018
 COUNT DATA - TIME - 4.00 PM - 6.00 PM
 PEAK HOUR - 5.00 PM - 6.00 PM

PM PEAK HOUR FUTURE TRAFFIC																
	IMMOKALEE BOULEVARD								COLLIER BOULEVARD							
	WESTBOUND				EASTBOUND				SOUTHBOUND				NORTHBOUND			
	LEFT	THRU	RIGHT	TOTAL	LEFT	THRU	RIGHT	TOTAL	LEFT	THRU	RIGHT	TOTAL	LEFT	THRU	RIGHT	TOTAL
TMCs	661	863	10	1,534	207	1,565	470	2,242	71	138	108	317	382	148	1,026	1,556
PSCF	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
2018 BACKGROUND VOLUME	661	863	10	1,534	207	1,565	470	2,242	71	138	108	317	382	148	1,026	1,556
GROWTH RATE	1.0%	2.0%	1.0%		1.0%	2.0%	1.0%		1.0%	2.0%	1.0%		1.0%	2.0%	1.0%	
YEARS TO BUILD-OUT	5	5	5		5	5	5		5	5	5		5	5	5	
2023 BACKGROUND	695	953	11	1,659	218	1,728	494	2,440	75	153	114	342	402	164	1,079	1,645
PROJECT TURNING VOLUMES	41	84	42	167	0	85	127	212	42	0	0	42	125	0	42	167
2023 BACKGROUND + PROJECT	736	1,037	53	1,826	218	1,813	621	2,652	117	153	114	384	527	164	1,121	1,812

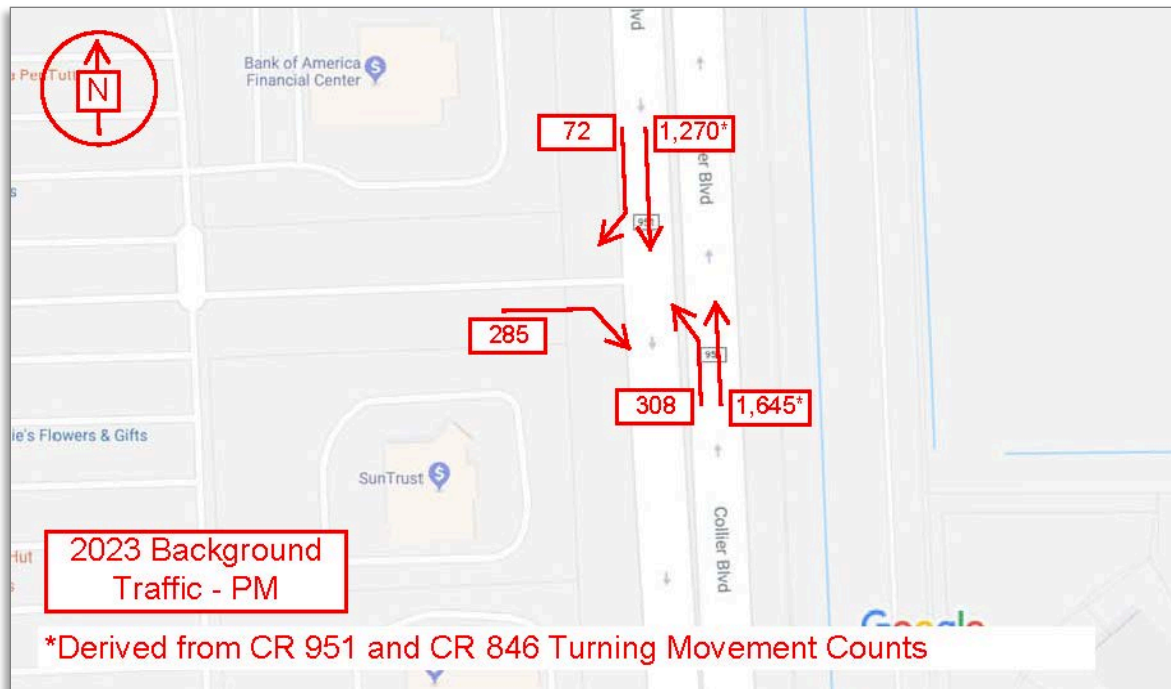
Collier Blvd. and Pebblebrooke Center Driveway Intersection

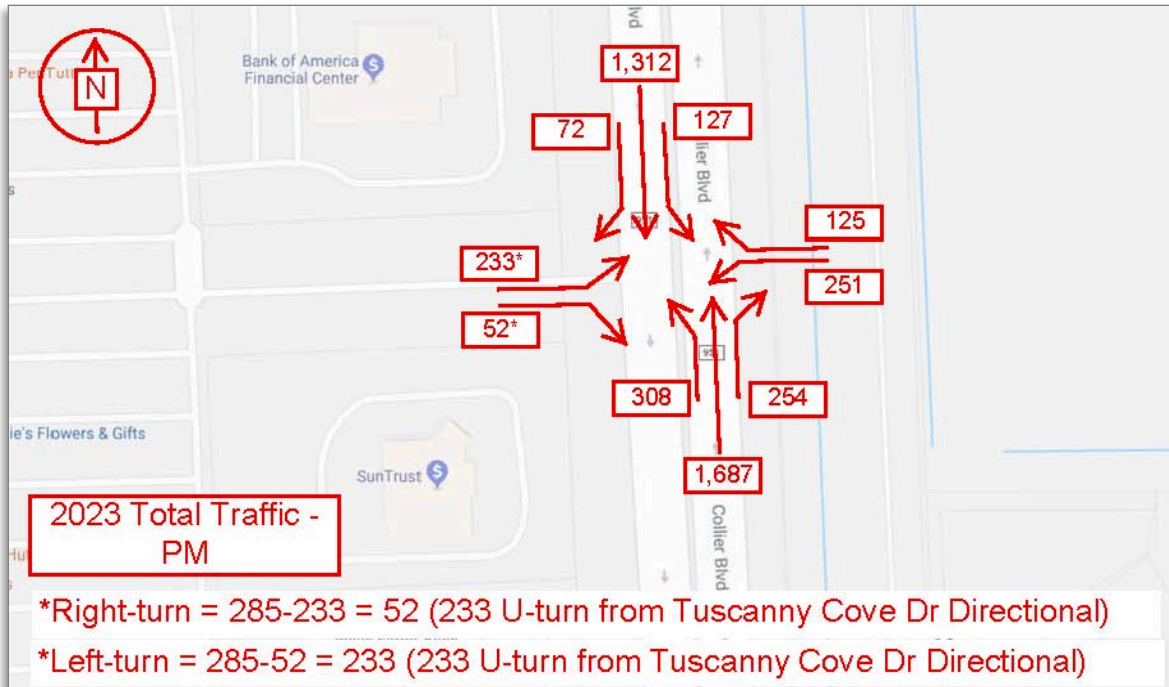




PROJECT - INTERSECTION TURNING MOVEMENT COUNTS - WITH PROJECT
 INTERSECTION - COLLIER BOULEVARD AND SHOPPES OF PEBBLEBROOKE
 COUNT DATA - DATE - 01-31-2018
 COUNT DATA - TIME - 7.00 AM - 9.00 AM
 PEAK HOUR - 8.00 AM - 9.00 AM

AM PEAK HOUR FUTURE TRAFFIC																
	PELICAN NURSEY PROJECT				SHOPPES OF PEBBLEBROOKE				COLLIER BOULEVARD							
	WESTBOUND				EASTBOUND				SOUTHBOUND				NORTHBOUND			
	LEFT	THRU	RIGHT	TOTAL	LEFT	THRU	RIGHT	TOTAL	LEFT	THRU	RIGHT	TOTAL	LEFT	THRU	RIGHT	TOTAL
TMCs	0	0	0	0	0	0	64	64	0	0	39	39	198	0	0	198
PSCF	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
2018 PEAK SEASON VOLUME	0	0	0	0	0	0	64	64	0	0	39	39	198	0	0	198
GROWTH RATE	1.0%	2.0%	1.0%		1.0%	2.0%	1.0%		1.0%	2.0%	1.0%		1.0%	2.0%	1.0%	
YEARS TO BUILD-OUT	5	5	5		5	5	5		5	5	5		5	5	5	
2023 BACKGROUND	0	0	0	0	0	0	68	68	0	0	41	41	209	0	0	209
PROJECT TURNING VOLUMES	201	0	100	301	0	0	0	0	107	33	0	140	0	36	214	250
2023 BACKGROUND + PROJECT	201	0	100	301	0	0	68	68	107	33	41	181	209	36	214	459

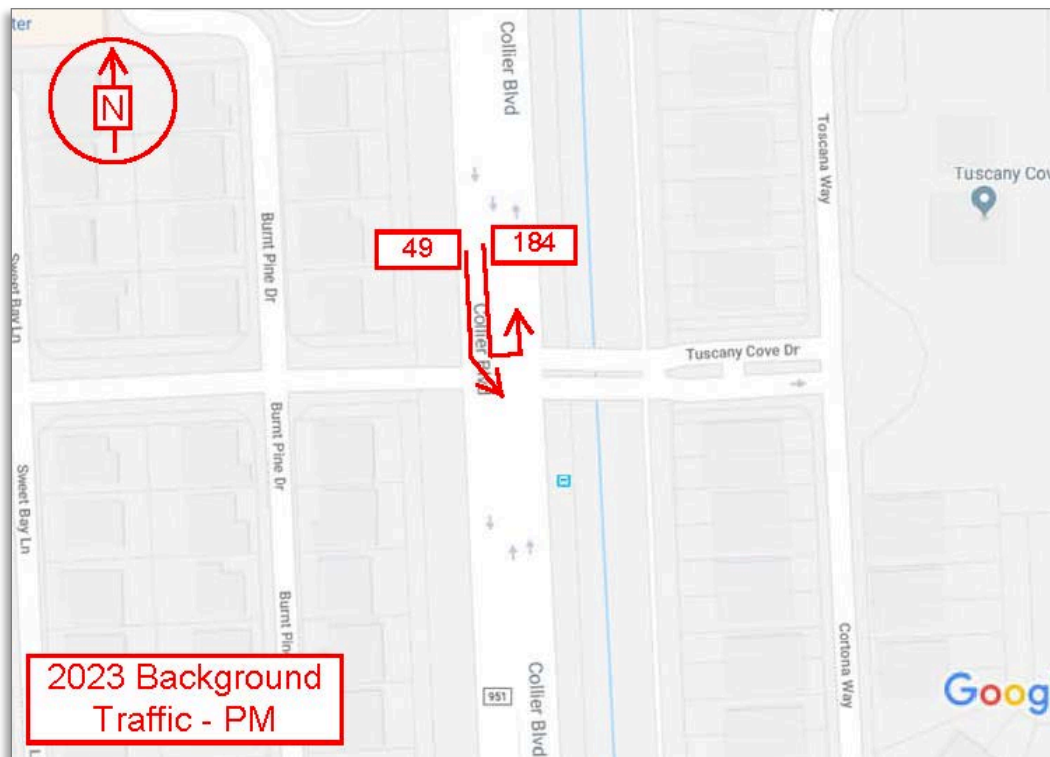
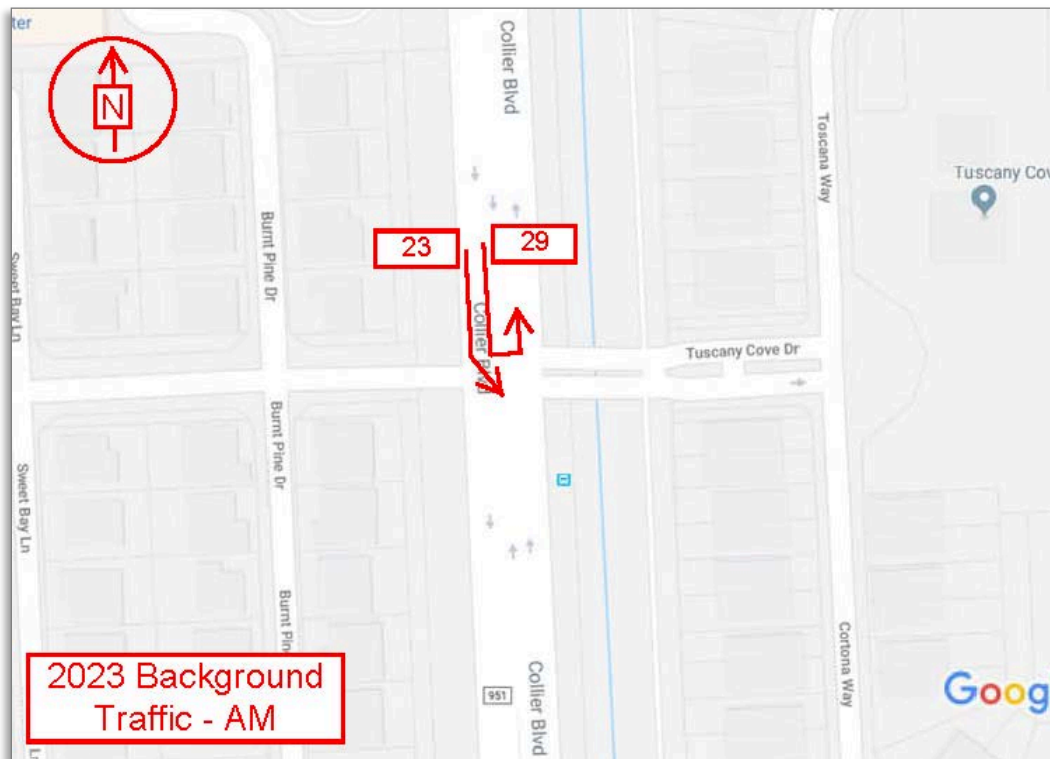




PROJECT - INTERSECTION TURNING MOVEMENT COUNTS - WITH PROJECT
 INTERSECTION - COLLIER BOULEVARD AND SHOPPES OF PEBBLEBROOKE
 COUNT DATA - DATE - 01-31-2018
 COUNT DATA - TIME - 4.00 PM - 6.00 PM
 PEAK HOUR - 4.45 PM - 5.45 PM

PM PEAK HOUR FUTURE TRAFFIC																
	PELICAN NURSEY PROJECT				SHOPPES OF PEBBLEBROOKE				COLLIER BOULEVARD							
	WESTBOUND				EASTBOUND				SOUTHBOUND				NORTHBOUND			
	LEFT	THRU	RIGHT	TOTAL	LEFT	THRU	RIGHT	TOTAL	LEFT	THRU	RIGHT	TOTAL	LEFT	THRU	RIGHT	TOTAL
TMCs	0	0	0	0	0	0	271	271	0	0	68	68	293	0	0	293
PSCF	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
2018 PEAK SEASON VOLUME	0	0	0	0	0	0	271	271	0	0	68	68	293	0	0	293
GROWTH RATE	1.0%	2.0%	1.0%		1.0%	2.0%	1.0%		1.0%	2.0%	1.0%		1.0%	2.0%	1.0%	
YEARS TO BUILD-OUT	5	5	5		5	5	5		5	5	5		5	5	5	
2023 BACKGROUND	0	0	0	0	0	0	285	285	0	0	72	72	308	0	0	308
PROJECT TURNING VOLUMES	251	0	125	376	0	0	0	0	127	42	0	169	0	42	254	296
2023 BACKGROUND + PROJECT	251	0	125	376	0	0	285	285	127	42	72	241	308	42	254	604

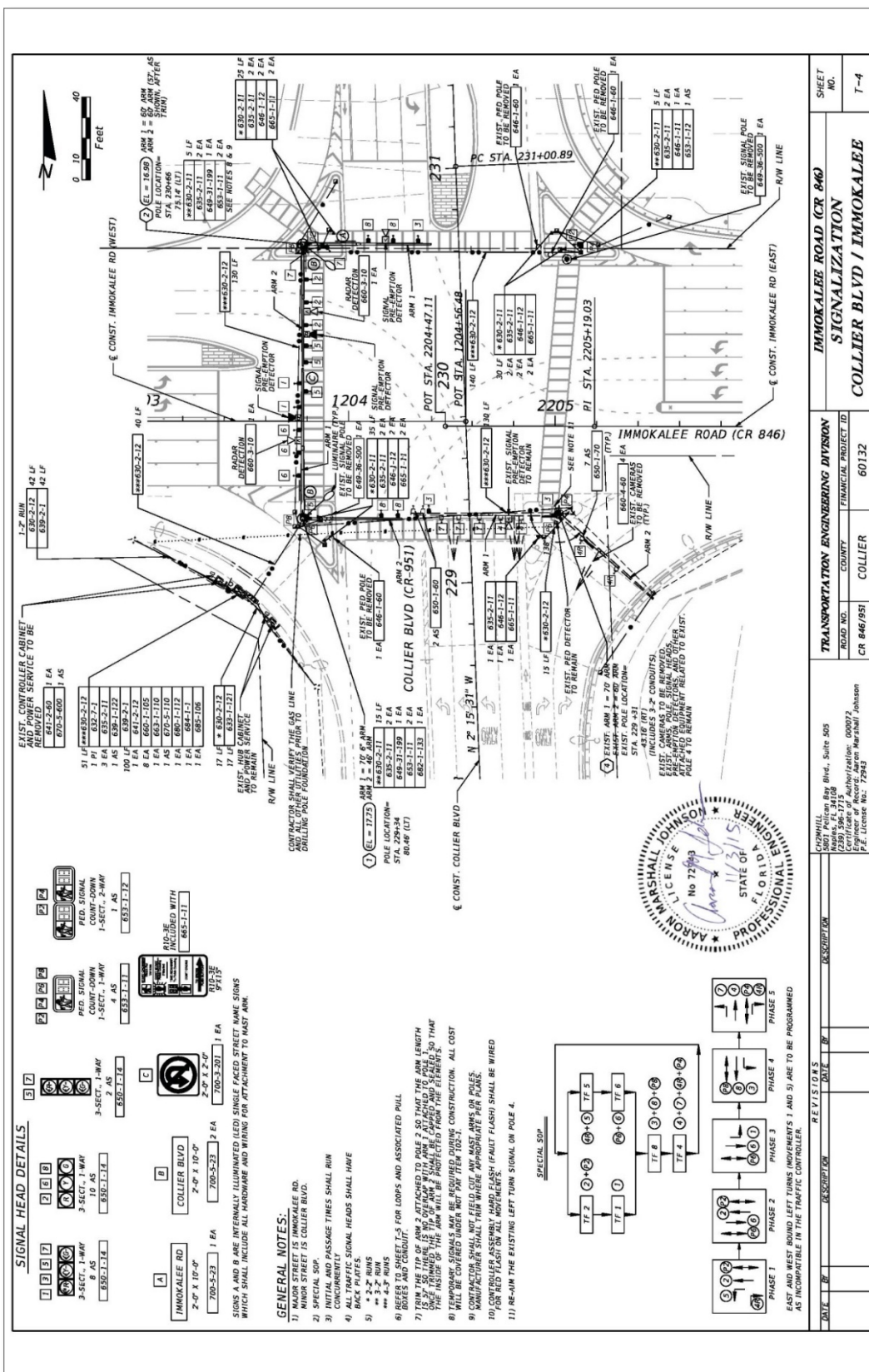
Collier Blvd. and Tuscany Cove Dr. Intersection – SB Left and U turns only



PROJECT - INTERSECTION TURNING MOVEMENT COUNTS - SB LT AND UT MOVEMENTS INTERSECTION - COLLIER BOULEVARD AND TUSCANY COVE DRIVE COUNT DATA - DATE - 02-01-2018 COUNT DATA - TIME - 7.00 AM - 9.00 AM PEAK HOUR - 7.45 AM - 8.45 AM									
AM PEAK HOUR FUTURE TRAFFIC									
	COLLIER BOULEVARD								
	SOUTHBOUND					NORTHBOUND			
	LEFT	U-TURN	THRU	RIGHT	TOTAL	LEFT	THRU	RIGHT	TOTAL
TMCs	21	27	0	0	48	0	0	0	0
PSCF	1.00	1.00	1.00	1.00		1.00	1.00	1.00	
2018 PEAK SEASON VOLUME	21	27	0	0	48	0	0	0	0
GROWTH RATE	1.0%	1.0%	2.0%	1.0%		1.0%	2.0%	1.0%	
YEARS TO BUILD-OUT	5	5	5	5		5	5	5	
2023 BACKGROUND	23	29	0	0	52	0	0	0	0
PROJECT TURNING VOLUMES	0	0	0	0	0	0	0	0	0
2023 BACKGROUND + PROJECT	23	29	0	0	52	0	0	0	0

PROJECT - INTERSECTION TURNING MOVEMENT COUNTS - SB LT AND UT MOVEMENTS INTERSECTION - COLLIER BOULEVARD AND TUSCANY COVE DRIVE COUNT DATA - DATE - 02-01-2018 COUNT DATA - TIME - 4.00 PM - 6.00 PM PEAK HOUR - 4.15 PM - 5.15 PM									
PM PEAK HOUR FUTURE TRAFFIC									
	COLLIER BOULEVARD								
	SOUTHBOUND					NORTHBOUND			
	LEFT	U-TURN	THRU	RIGHT	TOTAL	LEFT	THRU	RIGHT	TOTAL
TMCs	46	175	0	0	221	0	0	0	0
PSCF	1.00	1.00	1.00	1.00		1.00	1.00	1.00	
2018 PEAK SEASON VOLUME	46	175	0	0	221	0	0	0	0
GROWTH RATE	1.0%	1.0%	2.0%	1.0%		1.0%	2.0%	1.0%	
YEARS TO BUILD-OUT	5	5	5	5		5	5	5	
2023 BACKGROUND	49	184	0	0	233	0	0	0	0
PROJECT TURNING VOLUMES	0	0	0	0	0	0	0	0	0
2023 BACKGROUND + PROJECT	49	184	0	0	233	0	0	0	0

Appendix H: Collier Blvd. & Immokalee Rd. Intersection – Approved Signalization Plan



























Appendix I: Intersection Analyses – Synchro Studio 9

Collier Blvd. and Immokalee Rd. Intersection – Year 2018 Background Conditions

Lanes, Volumes, Timings

1: Collier Blvd & Immokalee Rd

02/28/2018

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	251	697	421	1164	1652	23	443	80	307	42	111	101
Future Volume (vph)	251	697	421	1164	1652	23	443	80	307	42	111	101
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	550		400	760		530	540		515	330		330
Storage Lanes	2		1	3		1	2		1	1		1
Taper Length (ft)	100			140			100			50		
Lane Util. Factor	0.97	0.91	1.00	0.94	0.91	1.00	0.94	1.00	0.88	1.00	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	5085	1583	4990	5085	1583	4990	1863	2787	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	5085	1583	4990	5085	1583	4990	1863	2787	1770	3539	1583
Right Turn on Red			No			No			Yes			No
Satd. Flow (RTOR)									319			
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		3220			3645			1891			2183	
Travel Time (s)		48.8			55.2			28.7			33.1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	264	734	443	1225	1739	24	466	84	323	44	117	106
Turn Type	Prot	NA	Free	Prot	NA	Free	Prot	NA	pt+ov	Prot	NA	Free
Protected Phases	1	6		5	2		7	4	4	3	8	
Permitted Phases			Free			Free						Free
Total Split (s)	27.0	53.0		43.0	69.0		26.0	52.0		22.0	48.0	
Total Lost Time (s)	5.4	5.4		5.4	5.4		5.4	5.4		5.4	5.4	
Act Effct Green (s)	16.6	24.8	119.1	45.5	53.7	119.1	17.1	15.8	66.8	13.8	9.7	119.1
Actuated g/C Ratio	0.14	0.21	1.00	0.38	0.45	1.00	0.14	0.13	0.56	0.12	0.08	1.00
w/C Ratio	0.55	0.69	0.28	0.64	0.76	0.02	0.65	0.34	0.19	0.22	0.40	0.07
Control Delay	54.9	48.3	0.4	32.6	29.9	0.0	54.1	57.2	1.9	53.5	59.0	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.9	48.3	0.4	32.6	29.9	0.0	54.1	57.2	1.9	53.5	59.0	0.1
LOS	D	D	A	C	C	A	D	E	A	D	E	A
Approach Delay		34.8			30.7			35.1			34.7	
Approach LOS		C			C			D			C	
Queue Length 50th (ft)	100	193	0	270	390	0	121	62	1	31	45	0
Queue Length 95th (ft)	162	269	0	367	518	0	180	126	25	76	86	0
Internal Link Dist (ft)		3140			3565			1811			2103	
Turn Bay Length (ft)	550		400	760		530	540		515	330		330
Base Capacity (vph)	632	2063	1583	1905	2757	1583	876	740	2355	251	1285	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced w/C Ratio	0.42	0.36	0.28	0.64	0.63	0.02	0.53	0.11	0.14	0.18	0.09	0.07
Intersection Summary												
Area Type:	Other											
Cycle Length: 170												
Actuated Cycle Length: 119.1												

CR 846 - CR 951 Int - 2018 Backgr AM Pk Hr 02/27/2018 Baseline

Synchro 9 Report
Page 1

Lanes, Volumes, Timings

1: Collier Blvd & Immokalee Rd

02/28/2018

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.76

Intersection Signal Delay: 32.7

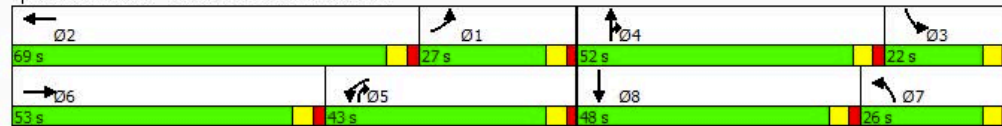
Intersection LOS: C

Intersection Capacity Utilization 67.7%

ICU Level of Service C

Analysis Period (min) 15


Splits and Phases: 1: Collier Blvd & Immokalee Rd



Lanes, Volumes, Timings

1: Collier Blvd & Immokalee Rd

02/28/2018

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↔↔↔	↔	↔↔↔	↔↔↔	↔	↔↔↔	↔	↔↔	↔	↔↔	↔
Traffic Volume (vph)	207	1565	470	661	863	10	382	148	1026	71	138	108
Future Volume (vph)	207	1565	470	661	863	10	382	148	1026	71	138	108
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	550		400	760		580	540		515	330		330
Storage Lanes	2		1	3		1	2		1	1		1
Taper Length (ft)	100			140			100			50		
Lane Util. Factor	0.97	0.91	1.00	0.94	0.91	1.00	0.94	1.00	0.88	1.00	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	5085	1583	4990	5085	1583	4990	1863	2787	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	5085	1583	4990	5085	1583	4990	1863	2787	1770	3539	1583
Right Turn on Red			No			No			Yes			No
Satd. Flow (RTOR)									481			
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		3220			3645			1891			2183	
Travel Time (s)		48.8			55.2			28.7			33.1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	218	1647	495	696	908	11	402	156	1080	75	145	114
Turn Type	Prot	NA	Free	Prot	NA	Free	Prot	NA	pt+ov	Prot	NA	Free
Protected Phases	1	6		5	2		7	4	4.5	3	8	
Permitted Phases			Free			Free						Free
Total Split (s)	20.0	61.0		32.0	73.0		16.7	32.3		44.7	60.3	
Total Lost Time (s)	5.4	5.4		5.4	5.4		5.4	5.4		5.4	5.4	
Act Effct Green (s)	48.8	54.3	134.0	26.1	31.7	134.0	20.8	20.6	52.2	11.2	11.0	134.0
Actuated g/C Ratio	0.36	0.41	1.00	0.19	0.24	1.00	0.16	0.15	0.39	0.08	0.08	1.00
w/c Ratio	0.17	0.80	0.31	0.72	0.76	0.01	0.52	0.55	0.78	0.51	0.50	0.07
Control Delay	32.1	39.6	0.5	56.3	52.3	0.0	54.6	60.6	23.9	73.1	66.6	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.1	39.6	0.5	56.3	52.3	0.0	54.6	60.6	23.9	73.1	66.6	0.1
LOS	C	D	A	E	D	A	D	E	C	E	E	A
Approach Delay		30.7			53.7			34.9			45.3	
Approach LOS		C			D			C			D	
Queue Length 50th (ft)	67	463	0	206	276	0	117	129	279	65	65	0
Queue Length 95th (ft)	116	591	0	274	335	0	156	209	396	123	107	0
Internal Link Dist (ft)		3140			3565			1811			2103	
Turn Bay Length (ft)	550		400	760		580	540		515	330		330
Base Capacity (vph)	1249	2124	1583	997	2582	1583	773	376	1479	522	1460	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced w/c Ratio	0.17	0.78	0.31	0.70	0.35	0.01	0.52	0.41	0.73	0.14	0.10	0.07
Intersection Summary												
Area Type:	Other											
Cycle Length:	170											
Actuated Cycle Length:	134											

CR 846 - CR 951 Int - 2018 Backgr PM Pk Hr 02/27/2018 Baseline

Synchro 9 Report

Page 1

Lanes, Volumes, Timings

1: Collier Blvd & Immokalee Rd

02/28/2018

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.80

Intersection Signal Delay: 38.9

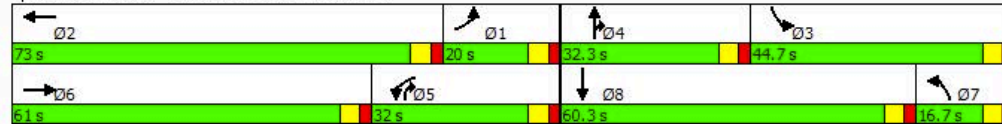
Intersection LOS: D

Intersection Capacity Utilization 83.8%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 1: Collier Blvd & Immokalee Rd



























Collier Blvd. and Immokalee Rd. Intersection – Year 2023 Background Conditions

Lanes, Volumes, Timings

1: Collier Blvd & Immokalee Rd

02/28/2018

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	264	770	443	1224	1824	25	466	89	323	45	123	107
Future Volume (vph)	264	770	443	1224	1824	25	466	89	323	45	123	107
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	550		400	760		530	540		515	330		330
Storage Lanes	2		1	3		1	2		1	1		1
Taper Length (ft)	100			140			100			50		
Lane Util. Factor	0.97	0.91	1.00	0.94	0.91	1.00	0.94	1.00	0.88	1.00	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	5085	1583	4990	5085	1583	4990	1863	2787	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	5085	1583	4990	5085	1583	4990	1863	2787	1770	3539	1583
Right Turn on Red			No			No			Yes			No
Satd. Flow (RTOR)									295			
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		3220			3645			1891			2183	
Travel Time (s)		48.8			55.2			28.7			33.1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	278	811	466	1288	1920	26	491	94	340	47	129	113
Turn Type	Prot	NA	Free	Prot	NA	Free	Prot	NA	pt+ov	Prot	NA	Free
Protected Phases	1	6		5	2		7	4	4	3	8	
Permitted Phases			Free			Free						Free
Total Split (s)	27.0	53.0		43.0	69.0		26.0	52.0		22.0	48.0	
Total Lost Time (s)	5.4	5.4		5.4	5.4		5.4	5.4		5.4	5.4	
Act Effct Green (s)	15.9	27.2	129.2	52.3	63.6	129.2	17.9	16.4	74.1	14.2	10.2	129.2
Actuated g/C Ratio	0.12	0.21	1.00	0.40	0.49	1.00	0.14	0.13	0.57	0.11	0.08	1.00
w/c Ratio	0.66	0.76	0.29	0.64	0.77	0.02	0.71	0.40	0.20	0.24	0.46	0.07
Control Delay	62.7	53.2	0.5	33.8	30.3	0.0	59.9	60.9	3.1	56.6	63.5	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.7	53.2	0.5	33.8	30.3	0.0	59.9	60.9	3.1	56.6	63.5	0.1
LOS	E	D	A	C	C	A	E	E	A	E	E	A
Approach Delay		39.1			31.5			39.1			37.6	
Approach LOS		D			C			D			D	
Queue Length 50th (ft)	117	236	0	307	472	0	141	77	9	36	55	0
Queue Length 95th (ft)	170	294	0	407	612	0	192	139	37	81	94	0
Internal Link Dist (ft)		3140			3565			1811			2103	
Turn Bay Length (ft)	550		400	760		530	540		515	330		330
Base Capacity (vph)	575	1879	1583	2018	2511	1583	797	673	2309	231	1170	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced w/c Ratio	0.48	0.43	0.29	0.64	0.76	0.02	0.62	0.14	0.15	0.20	0.11	0.07
Intersection Summary												
Area Type:	Other											
Cycle Length: 170												
Actuated Cycle Length: 129.2												

CR 846 - CR 951 Int - 2023 Backgr AM Pk Hr 02/27/2018 Baseline

Synchro 9 Report
Page 1

Lanes, Volumes, Timings

1: Collier Blvd & Immokalee Rd

02/28/2018

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.77

Intersection Signal Delay: 34.9

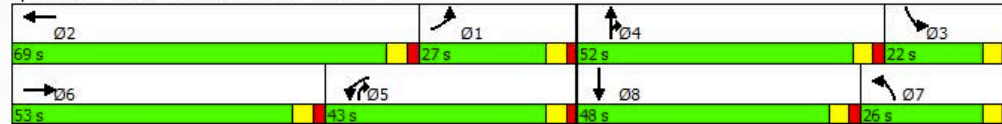
Intersection LOS: C

Intersection Capacity Utilization 73.8%

ICU Level of Service D

Analysis Period (min) 15

























Splits and Phases: 1: Collier Blvd & Immokalee Rd



Lanes, Volumes, Timings

1: Collier Blvd & Immokalee Rd

02/28/2018

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	218	1728	494	695	953	11	402	164	1079	75	153	114
Future Volume (vph)	218	1728	494	695	953	11	402	164	1079	75	153	114
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	550		400	760		580	540		515	330		330
Storage Lanes	2		1	3		1	2		1	1		1
Taper Length (ft)	100			140			100			50		
Lane Util. Factor	0.97	0.91	1.00	0.94	0.91	1.00	0.94	1.00	0.88	1.00	0.95	1.00
Fit			0.850			0.850			0.850			0.850
Fit Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	5085	1583	4990	5085	1583	4990	1863	2787	1770	3539	1583
Fit Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	5085	1583	4990	5085	1583	4990	1863	2787	1770	3539	1583
Right Turn on Red			No			No			Yes			No
Satd. Flow (RTOR)									471			
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		3220			3645			1891			2183	
Travel Time (s)		48.8			55.2			28.7			33.1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	229	1819	520	732	1003	12	423	173	1136	79	161	120
Turn Type	Prot	NA	Free	Prot	NA	Free	Prot	NA	pt+ov	Prot	NA	Free
Protected Phases	1	6		5	2		7	4	4.5	3	8	
Permitted Phases			Free			Free						Free
Total Split (s)	20.0	61.0		32.0	73.0		16.7	32.3		44.7	60.3	
Total Lost Time (s)	5.4	5.4		5.4	5.4		5.4	5.4		5.4	5.4	
Act Effct Green (s)	47.3	55.8	137.9	26.7	35.2	137.9	22.0	22.2	54.3	11.6	11.7	137.9
Actuated g/C Ratio	0.34	0.40	1.00	0.19	0.26	1.00	0.16	0.16	0.39	0.08	0.08	1.00
w/c Ratio	0.19	0.88	0.33	0.76	0.77	0.01	0.53	0.58	0.82	0.53	0.53	0.08
Control Delay	35.3	45.0	0.6	59.2	52.1	0.0	55.6	61.9	27.0	74.8	68.0	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.3	45.0	0.6	59.2	52.1	0.0	55.6	61.9	27.0	74.8	68.0	0.1
LOS	D	D	A	E	D	A	E	E	C	E	E	A
Approach Delay		35.2			54.8			37.5			46.9	
Approach LOS		D			D			D			D	
Queue Length 50th (ft)	76	557	0	224	309	0	124	145	324	70	74	0
Queue Length 95th (ft)	126	698	0	291	365	0	165	231	454	128	117	0
Internal Link Dist (ft)		3140			3565			1811			2103	
Turn Bay Length (ft)	550		400	760		580	540		515	330		330
Base Capacity (vph)	1176	2057	1583	965	2501	1583	796	364	1463	506	1413	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced w/c Ratio	0.19	0.88	0.33	0.76	0.40	0.01	0.53	0.48	0.78	0.16	0.11	0.08
Intersection Summary												
Area Type:	Other											
Cycle Length: 170												
Actuated Cycle Length: 137.9												

CR 846 - CR 951 Int - 2023 Backgr PM Pk Hr 02/27/2018 Baseline

Synchro 9 Report

Page 1

Lanes, Volumes, Timings

1: Collier Blvd & Immokalee Rd

02/27/2018

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.88

Intersection Signal Delay: 41.8

Intersection LOS: D

Intersection Capacity Utilization 88.8%

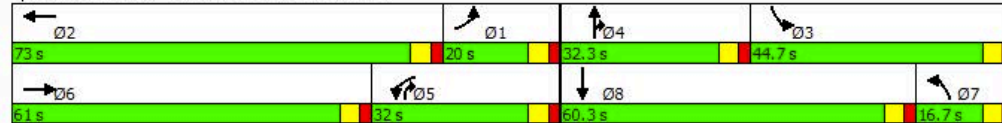
ICU Level of Service E

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Collier Blvd & Immokalee Rd



Collier Blvd. and Immokalee Rd. Intersection – Year 2023 Background with Project Conditions

Lanes, Volumes, Timings

1: Collier Blvd & Immokalee Rd

02/27/2018

	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↔↔↔	↔	↔↔↔	↔↔↔	↔	↔↔↔	↔	↔	↔	↔↔	↔
Traffic Volume (vph)	264	841	550	1257	1891	59	566	89	359	81	123	107
Future Volume (vph)	264	841	550	1257	1891	59	566	89	359	81	123	107
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	550		400	760		530	540		515	330		330
Storage Lanes	2		1	3		1	2		1	1		1
Taper Length (ft)	100			140			100			50		
Lane Util. Factor	0.97	0.91	1.00	0.94	0.91	1.00	0.94	1.00	0.88	1.00	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	5085	1583	4990	5085	1583	4990	1863	2787	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	5085	1583	4990	5085	1583	4990	1863	2787	1770	3539	1583
Right Turn on Red			No			No			Yes			No
Satd. Flow (RTOR)									179			
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		3220			3645			1891			2183	
Travel Time (s)		48.8			55.2			28.7			33.1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	278	885	579	1323	1991	62	596	94	378	85	129	113
Turn Type	Prot	NA	Free	Prot	NA	Free	Prot	NA	pt+ov	Prot	NA	Free
Protected Phases	1	6		5	2		7	4	4	3	8	
Permitted Phases			Free			Free						Free
Total Split (s)	27.0	53.0		43.0	69.0		26.0	52.0		22.0	48.0	
Total Lost Time (s)	5.4	5.4		5.4	5.4		5.4	5.4		5.4	5.4	
Act Effct Green (s)	15.9	29.4	132.2	50.3	63.7	132.2	20.7	12.3	68.0	18.6	10.3	132.2
Actuated g/C Ratio	0.12	0.22	1.00	0.38	0.48	1.00	0.16	0.09	0.51	0.14	0.08	1.00
w/c Ratio	0.67	0.78	0.37	0.70	0.81	0.04	0.77	0.55	0.25	0.34	0.47	0.07
Control Delay	64.3	53.8	0.7	37.7	33.1	0.1	61.3	69.4	9.6	57.6	64.6	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	64.3	53.8	0.7	37.7	33.1	0.1	61.3	69.4	9.6	57.6	64.6	0.1
LOS	E	D	A	D	C	A	E	E	A	E	E	A
Approach Delay		37.8			34.3			43.7			40.5	
Approach LOS		D			C			D			D	
Queue Length 50th (ft)	119	263	0	336	519	0	175	78	49	66	56	0
Queue Length 95th (ft)	170	318	0	433	651	0	233	139	85	130	94	0
Internal Link Dist (ft)		3140			3565			1811			2103	
Turn Bay Length (ft)	550		400	760		530	540		515	330		330
Base Capacity (vph)	561	1834	1583	1897	2450	1583	780	667	2198	250	1142	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced w/c Ratio	0.50	0.48	0.37	0.70	0.81	0.04	0.76	0.14	0.17	0.34	0.11	0.07
Intersection Summary												
Area Type:	Other											
Cycle Length: 170												
Actuated Cycle Length: 132.2												

CR 846 - CR 951 Int - Backgr AM Pk Hr w P.J. (Signal Access) 02/27/2018 Baseline

Synchro 9 Report
Page 1

Lanes, Volumes, Timings

1: Collier Blvd & Immokalee Rd

02/28/2018

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.81

Intersection Signal Delay: 37.1

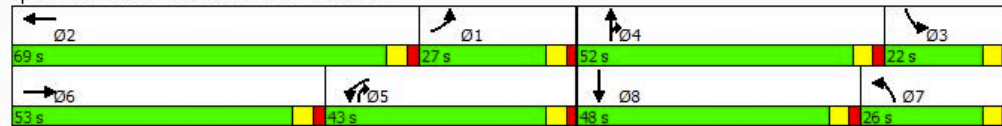
Intersection LOS: D

Intersection Capacity Utilization 77.0%

ICU Level of Service D

Analysis Period (min) 15


Splits and Phases: 1: Collier Blvd & Immokalee Rd



Lanes, Volumes, Timings

1: Collier Blvd & Immokalee Rd

02/27/2018

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↔↔↔	↔	↔↔↔	↔↔↔	↔	↔↔↔	↔	↔↔	↔	↔↔	↔
Traffic Volume (vph)	218	1813	621	736	1037	53	527	164	1121	117	153	114
Future Volume (vph)	218	1813	621	736	1037	53	527	164	1121	117	153	114
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	550		400	760		580	540		515	330		330
Storage Lanes	2		1	3		1	2		1	1		1
Taper Length (ft)	100			140			100			50		
Lane Util. Factor	0.97	0.91	1.00	0.94	0.91	1.00	0.94	1.00	0.88	1.00	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	5085	1583	4990	5085	1583	4990	1863	2787	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	5085	1583	4990	5085	1583	4990	1863	2787	1770	3539	1583
Right Turn on Red			No			No			Yes			No
Satd. Flow (RTOR)									368			
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		3220			3645			1891			2183	
Travel Time (s)		48.8			55.2			28.7			33.1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	229	1908	654	775	1092	56	555	173	1180	123	161	120
Turn Type	Prot	NA	Free	Prot	NA	Free	Prot	NA	pt+ov	Prot	NA	Free
Protected Phases	1	6		5	2		7	4	4.5	3	8	
Permitted Phases			Free			Free						Free
Total Split (s)	20.0	61.0		32.0	73.0		16.7	32.3		44.7	60.3	
Total Lost Time (s)	5.4	5.4		5.4	5.4		5.4	5.4		5.4	5.4	
Act Effct Green (s)	43.0	55.7	145.4	26.6	39.3	145.4	29.5	26.1	58.1	15.4	12.0	145.4
Actuated g/C Ratio	0.30	0.38	1.00	0.18	0.27	1.00	0.20	0.18	0.40	0.11	0.08	1.00
w/c Ratio	0.23	0.98	0.41	0.85	0.79	0.04	0.55	0.52	0.88	0.66	0.55	0.08
Control Delay	41.7	60.5	0.8	67.6	54.0	0.0	54.4	60.9	36.7	79.3	71.9	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.7	60.5	0.8	67.6	54.0	0.0	54.4	60.9	36.7	79.3	71.9	0.1
LOS	D	E	A	E	D	A	D	E	D	E	E	A
Approach Delay		45.0			57.9			44.1			52.8	
Approach LOS		D			E			D			D	
Queue Length 50th (ft)	85	656	0	256	355	0	168	150	435	115	78	0
Queue Length 95th (ft)	137	8630	0	8636	404	0	215	239	8600	185	121	0
Internal Link Dist (ft)		3140			3565			1811			2103	
Turn Bay Length (ft)	550		400	760		580	540		515	330		330
Base Capacity (vph)	1015	1947	1583	914	2367	1583	1010	345	1349	479	1338	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced w/c Ratio	0.23	0.98	0.41	0.85	0.46	0.04	0.55	0.50	0.87	0.26	0.12	0.08
Intersection Summary												
Area Type:	Other											
Cycle Length:	170											
Actuated Cycle Length:	145.4											

CR #46 - CR 951 Int - 2023 Backgr PM w PJ (Signal Access) 02/27/2018 Baseline

Synchro 9 Report

Page 1

Lanes, Volumes, Timings

1: Collier Blvd & Immokalee Rd

02/28/2018

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.98

Intersection Signal Delay: 48.7

Intersection LOS: D

Intersection Capacity Utilization 94.2%

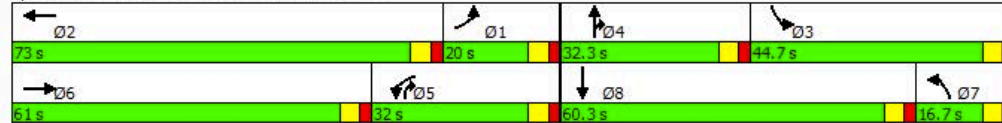
ICU Level of Service F

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Collier Blvd & Immokalee Rd

























Collier Blvd. and Pebblebrooke Center/Project Access Intersection – Year 2023 Background with Project Conditions

Lanes, Volumes, Timings

3: Shoppes /Access & Collier Blvd.

02/23/2018

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	29	0	39	201	0	100	209	914	214	107	1782	41
Future Volume (vph)	29	0	39	201	0	100	209	914	214	107	1782	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	310		185	285		285
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	50			50			50			50		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Frt		0.850			0.850				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1583	0	1770	1583	0	1770	5085	1583	1770	5085	1583
Flt Permitted	0.727			0.368			0.072			0.270		
Satd. Flow (perm)	1354	1583	0	685	1583	0	134	5085	1583	503	5085	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		321			487				176			119
Link Speed (mph)		25			25			45			45	
Link Distance (ft)		275			260			792			1100	
Travel Time (s)		7.5			7.1			12.0			16.7	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)												
Lane Group Flow (vph)	32	43	0	223	111	0	232	1016	238	119	1980	46
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases	8			4			6		6	2		2
Total Split (s)	45.0	45.0		45.0	45.0		25.0	65.4	65.4	14.6	55.0	55.0
Total Lost Time (s)	5.4	5.4		5.4	5.4		5.4	5.4	5.4	5.4	5.4	5.4
Act Effct Green (s)	12.5	5.5		30.2	17.8		72.5	58.9	58.9	58.0	49.8	49.8
Actuated g/C Ratio	0.11	0.05		0.27	0.16		0.64	0.52	0.52	0.51	0.44	0.44
w/C Ratio	0.18	0.11		0.61	0.17		0.69	0.39	0.26	0.34	0.89	0.06
Control Delay	35.4	0.6		42.8	0.6		37.3	17.5	5.6	12.9	36.4	0.1
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.4	0.6		42.8	0.6		37.3	17.5	5.6	12.9	36.4	0.1
LOS	D	A		D	A		D	B	A	B	D	A
Approach Delay		15.4			28.7			18.7			34.3	
Approach LOS		B			C			B			C	
Queue Length 50th (ft)	18	0		139	0		108	157	22	31	485	0
Queue Length 95th (ft)	43	0		215	0		212	219	72	64	671	0
Internal Link Dist (ft)		195			180			712			1020	
Turn Bay Length (ft)							310		185	285		285
Base Capacity (vph)	619	762		619	870		368	2696	922	364	2229	760
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced w/C Ratio	0.05	0.06		0.36	0.13		0.63	0.38	0.26	0.33	0.89	0.06

Intersection Summary

Area Type: Other

Cycle Length: 170

Actuated Cycle Length: 113.6

CR 951 PJ Access - Signal - 2023 AM Backgr w/ Pj 02/23/2018 Baseline

Synchro 9 Report

Page 1

Lanes, Volumes, Timings

3: Shoppes /Access & Collier Blvd.

02/28/2018

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.89

Intersection Signal Delay: 27.7

Intersection LOS: C

Intersection Capacity Utilization 77.3%

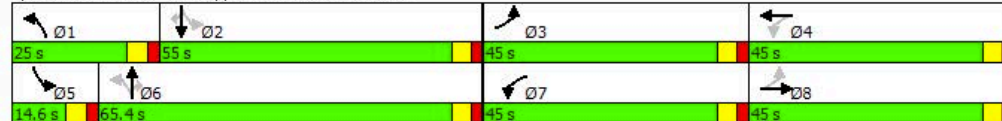
ICU Level of Service D

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.


Splits and Phases: 3: Shoppes /Access & Collier Blvd.



Lanes, Volumes, Timings

3: Shoppes /Access & Collier Blvd.

02/28/2018

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	233	0	52	251	0	125	308	1687	254	127	1312	72
Future Volume (vph)	233	0	52	251	0	125	308	1687	254	127	1312	72
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	310		185	285		285
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	50			50			50			50		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Frt		0.850			0.850				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1583	0	1770	1583	0	1770	5085	1583	1770	5085	1583
Flt Permitted	0.727			0.556			0.078			0.088		
Satd. Flow (perm)	1354	1583	0	1036	1583	0	145	5085	1583	164	5085	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		350			283				113			119
Link Speed (mph)		25			25			45			45	
Link Distance (ft)		275			260			792			1100	
Travel Time (s)		7.5			7.1			12.0			16.7	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)												
Lane Group Flow (vph)	259	58	0	279	139	0	342	1874	282	141	1458	80
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases	8			4			6		6	2		2
Total Split (s)	45.0	45.0		45.0	45.0		29.0	65.4	65.4	14.6	51.0	51.0
Total Lost Time (s)	5.4	5.4		5.4	5.4		5.4	5.4	5.4	5.4	5.4	5.4
Act Effct Green (s)	25.6	5.5		28.9	7.1		74.7	60.1	60.1	54.9	45.7	45.7
Actuated g/C Ratio	0.22	0.05		0.24	0.06		0.63	0.51	0.51	0.46	0.39	0.39
w/c Ratio	0.71	0.14		0.72	0.39		0.82	0.72	0.33	0.70	0.74	0.12
Control Delay	47.8	0.7		47.8	3.1		48.6	25.3	11.7	44.7	34.6	1.8
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.8	0.7		47.8	3.1		48.6	25.3	11.7	44.7	34.6	1.8
LOS	D	A		D	A		D	C	B	D	C	A
Approach Delay		39.2			33.0			26.9			33.9	
Approach LOS		D			C			C			C	
Queue Length 50th (ft)	167	0		183	0		197	392	69	51	345	0
Queue Length 95th (ft)	250	0		270	0		4087	510	143	4162	445	12
Internal Link Dist (ft)		195			180			712			1020	
Turn Bay Length (ft)							310		185	285		285
Base Capacity (vph)	594	763		594	719		416	2585	860	201	1964	684
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced w/c Ratio	0.44	0.08		0.47	0.19		0.82	0.72	0.33	0.70	0.74	0.12
Intersection Summary												
Area Type:	Other											
Cycle Length:	170											
Actuated Cycle Length:	118.2											

CR 951 PJ Access - Signal - 2023 PM Backgr w/ PJ 02/28/2018 Baseline

Synchro 9 Report

Page 1

Lanes, Volumes, Timings

3: Shoppes /Access & Collier Blvd.

02/28/2018

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.82

Intersection Signal Delay: 30.6

Intersection LOS: C

Intersection Capacity Utilization 81.1%

ICU Level of Service D

Analysis Period (min) 15

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

Splits and Phases: 3: Shoppes /Access & Collier Blvd.

