



TREBILCOCK
CONSULTING SOLUTIONS

Traffic Impact Statement

Port Royal Club – Site Plan Petition

**City of Naples, FL
02/16/2024**

Prepared for:

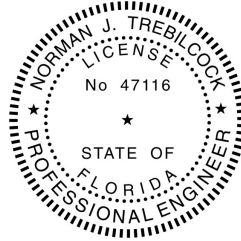
Port Royal Club
2900 Gordon Drive
Naples, FL 34102
Phone: 239.529.2246

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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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Project Description

The Port Royal Club is located on the east and west side of Gordon Drive at the intersection of Gordon Drive and Kingstown Drive, in Naples, Florida. The subject parcel lies within Section 16, Township 50 South, Range 25 East, in Collier County.

Refer to **Fig. 1 – Project Location Map**, which follows and **Appendix A: Project Master Site Plan**.

Figure 1 – Project Location Map



The Port Royal Club operated before Hurricane Ian with a fine dining restaurant and a recreational community center for the benefit of the residents of Port Royal. The current re-development of Port Royal Club proposes a total square footage of 76,957 sf, with 6,060 sf of fine dining and 70,897 sf dedicated to the rec community center. This report will also consolidate the Port Royal Club with the neighboring Port Royal Club fitness/tennis center that is currently in operation. The fitness/tennis center has a total of 9 tennis courts and an indoor facility with 13,315 square feet of floor space. A portion of the employees for the Port Royal Club will use available parking from the fitness club. The project has a horizon year of 2026.

The project’s site trip generation is based on the Institute of Transportation Engineers (ITE) Trip Generation Manual, 11th Edition. The project provides a highest and best use scenario with respect to the project’s proposed trip generation. The development program is illustrated in **Table 1**.

Table 1
Development Program

Development	ITE Land Use	ITE Land Use Code	Total Size
Proposed Redevelopment	Fine Dining Restaurant	931	6,060 square feet
	Recreational Community Center	495	70,897 square feet
Existing Development	Raquet/Tennis Club	491	9 courts
	Health/Fitness Club	492	13,315 square feet

The project buildout and future planning horizon year for this analysis is 2026.

A methodology meeting checklist was submitted to the City of Naples Planning staff on October 25, 2023, via email (reference **Appendix B: Initial Meeting Checklist**).

Connection to the roadway network is an existing full movement driveway onto Gordon Drive.

Trip Generation

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 rates are used for the trip generation calculations. The ITE – OTISS trip generation calculation worksheets are provided in **Appendix C: Trip Generation Calculations ITE 11th Edition**.

The **internal capture** accounts for a reduction in external traffic because of the interaction between the multiple land uses in a site. No internal capture is considered for this site.

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. No pass-by is considered for this site.

Land use code 491 – Raquet/Tennis Club - ITE does not provide data for the AM peak hour. The PM peak hour trip generation will be used to represent the AM peak hour as people are expected to use the courts during the AM peak hour. ITE does not provide a directional distribution for the

PM peak hour for land use code 491. As such, the directional distribution for the AM and PM peak hour is assumed as follows: Entering – 50%; Exiting – 50%.

Land use code 492 – Health/Fitness Club - ITE does not provide data for the Daily and AM peak hour. The PM peak hour trip generation will be used to represent the AM peak hour as people are expected to use the fitness center during the AM peak hour.

The estimated trip generation for the proposed buildout is illustrated in **Table 2A**. The estimated trip generation for the existing conditions of the athletic club are illustrated in **Table 2B**. The estimated net new trips for the proposed buildout conditions are illustrated in **Table 2C**.

Table 2A
Trip Generation (Proposed Conditions) – Average Weekday

Proposed Development		24 Hour Two-Way Volume (vpd)	AM Peak Hour (vph)			PM Peak Hour (vph)		
Land Use	Size ⁽¹⁾		Enter	Exit	Total	Enter	Exit	Total
Fine Dining Restaurant	6,060 sf	912	0	0	0	31	16	47
Recreation Community Center	66,374 sf	1,913	89	46	135	83	94	177
Raquet/Tennis Club	9 courts	249	17	17	34	17	17	34
Health/Fitness Club	13,315 sf	0	26	20	46	26	20	46
Total		3,074	132	83	215	157	147	304

Note: 1) sf = square feet; 2) vpd = vehicles per day; 3) vph = vehicles per hour.

Table 2B
Trip Generation (Existing Conditions) – Average Weekday

Proposed Development		24 Hour Two-Way Volume (vpd)	AM Peak Hour (vph)			PM Peak Hour (vph)		
Land Use	Size ⁽¹⁾		Enter	Exit	Total	Enter	Exit	Total
Raquet/Tennis Club	9 courts	249	17	17	34	17	17	34
Health/Fitness Center	13,315 sf	0	26	20	46	26	20	46
Total		249	43	37	80	43	37	80

Note: 1) sf = square feet; 2) vpd = vehicles per day; 3) vph = vehicles per hour.

The roadway link concurrency analysis of the surrounding roadway network is analyzed based on the projected PM peak hour net new trips generated because of the proposed SPP project (as shown in **Table 2C**). Site access analysis will be based on projected AM and PM peak hour trips generated because of the proposed SPP project (as shown in **Table 2A**).

Table 2C
Net New Trips (Proposed Conditions) – Average Weekday

Proposed Development		24 Hour Two-Way Volume (vpd)	AM Peak Hour (vph)			PM Peak Hour (vph)		
Land Use			Enter	Exit	Total	Enter	Exit	Total
Proposed		3,074	132	83	215	157	147	304
Existing		249	43	37	80	43	37	80
Net Increase/(Decrease)		2,825	89	46	135	114	110	224

Note: 1) sf = square feet; 2) vpd = vehicles per day; 3) vph = vehicles per hour.

Trip Distribution and Assignment

Projected traffic generated by the project is assigned to the adjacent roadways using knowledge of the area and as coordinated with City of Naples Transportation Planning staff.

Consistent with the traffic data presented in Table 2C, the project PM peak hour traffic is more intensive than the traffic generated during the AM peak hour.

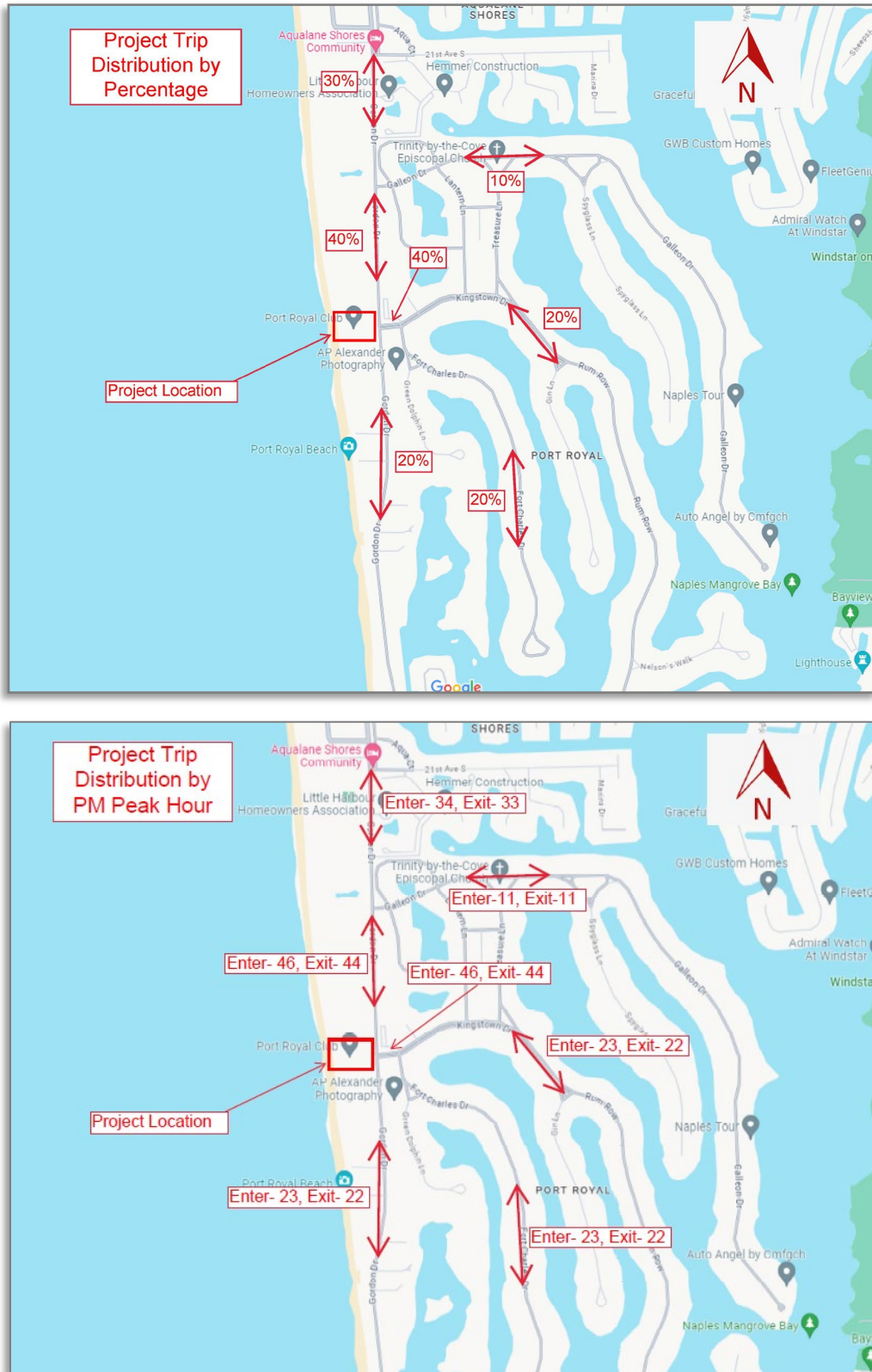
The assignment of the projected site-generated trips is shown in **Table 3, Project Traffic Distribution by PM Peak Hour**, and is graphically depicted on **Figure 2 – Project Distribution by Percentage and PM Peak Hour**.

Table 3
Project Traffic Distribution by PM Peak Hour

Roadway Link	Roadway Link Location	Distribution of Project Traffic	PM Peak Hour Project Traffic Volume ⁽²⁾ (vph)		
			Enter	Exit	2-way Total
Gordon Dr	21 st Ave S to Galleon Dr	30%	SB – 34	NB – 33	67
Gordon Dr	Galleon Dr to Kingstown Dr	40%	SB – 46	NB – 44	90
Gordon Dr	South of Kingstown Dr	20%	NB – 23	SB – 22	45
Galleon Dr ⁽¹⁾	East of Gordon Dr	10%	WB – 11	EB – 11	22
Kingstown Dr ⁽¹⁾	Gordon Dr to Fort Charles Dr	40%	WB – 46	EB – 44	90
Kingstown Dr ⁽¹⁾	East of Fort Charles Dr	20%	WB – 23	EB – 22	45
Fort Charles Dr ⁽¹⁾	South of Kingstown Dr	20%	WB – 23	EB – 22	45

Note(s): 1) Not a city monitored facility.
 2) City of Naples facilities analyzed as 2-way traffic.
 3) vph = vehicles per hour

Figure 2 – Project Distribution by Percentage and PM Peak Hour



Background Traffic

Average background traffic growth rates are estimated for the segments of the roadway network in the study area using the City of Naples Concurrency System Management Element – Adopted Standards for Roadway Level of Service (LOS).

As such, for City monitored streets, the adopted standard LOS for vehicular travel is LOS “C”. The single exception to the City’s standard is Fifth Avenue South between US 41 and Gulf Shore Boulevard. This segment is defined as a constrained facility and accordingly is exempted from level of service requirements. For Collier County maintained roads within the City of Naples (Goodlette-Frank Road and Golden Gate Parkway), the City of Naples has adopted the Collier County’s Level of Service. For State Roads #45 (US 41) and #90 (US 41) within the City’s corporate limits, the City is consistent with the State’s policies for LOS.

The LOS Standard for the City streets is measured by comparing the two-way traffic volume at peak hour, peak season with the designated roadway capacity as set forth in the City of Naples Comprehensive Plan.

The City has a low growth rate, restricted geographic boundaries, limited undeveloped land and minimal future infrastructure needs. Even though the City population trend is expected to level off, the traffic volume trends can be estimated to increase as the result of the influence of Collier County growth. The analyzed surrounding roadway network services a developed area with minimal undeveloped. As such, the average background traffic growth rates are estimated for the segments of the roadway network in the study area using a 1% growth rate.

The City of Naples two-way peak hour traffic counts through the 1st quarter of the year 2023 are illustrated in **Appendix D: City of Naples – Two-way Traffic Volumes**.

Table 4, Background Traffic without Project, illustrates the application of projected growth rates to generate the projected background (without project) peak hour traffic volume for the future horizon year 2026.

**Table 4
Background Traffic without Project (2023-2026)**

Roadway Link	Roadway Link Location	2023 Pk Hr, Background Traffic Volume (vph)	Projected Traffic Annual Growth Rate (%/yr)	Growth Factor ⁽¹⁾	2026 Projected Pk Hr Background Traffic Volume w/out Project (vph) ⁽²⁾
Gordon Dr	21 st Ave S to Galleon Dr	1,377 (2-way)	1.0%	1.0303	1,419
Gordon Dr	Galleon Dr to Kingstown Dr	1,377 (2-way)	1.0%	1.0303	1,419
Gordon Dr	South of Kingstown Dr	1,377 (2-way)	1.0%	1.0303	1,419

Note(s): The projected 2026 Peak Hour Background Traffic is the calculated projected future volume based on data from the City of Naples 2023 1st Quarter Count Data (peak season).

- 1) Growth Factor = (1 + Annual Growth Rate) ³.
- 2) 2026 Projected Volume = 2023 Peak Hour Background Traffic Volume X Growth Factor.
- 3) vph = vehicles per hour

Existing and Future Roadway Network

The existing roadway Level of Service (LOS) conditions are extracted from the adopted City of Naples – Concurrency System Management Element – Roadways Level of Service for 2014. Based on the City of Naples Capital Improvement Plan 2024-2028, no improvements are identified for the analyzed roadways.

The existing and future roadway conditions are illustrated in **Table 5**.

Table 5
Existing and Future Roadway Conditions

Roadway Link	Roadway Link Location	2023 Roadway Condition	2023 Min. Standard LOS	2023 Peak Hr Capacity Volume (vph)	2026 Roadway Condition	2026 Min. Standard LOS	2026 Peak Dir, Peak Hr Capacity Volume (vph)
Gordon Dr	21 st Ave S to Galleon Dr	2U	C	1,570 (2-way)	2U	C	1,570 (2-way)
Gordon Dr	Galleon Dr to Kingstown Dr	2U	C	1,570 (2-way)	2U	C	1,570 (2-way)
Gordon Dr	South of Kingstown Dr	2U	C	1,570 (2-way)	2U	C	1,570 (2-way)

Note(s): 2U = 2-lane undivided roadway; 2D, 6D = 2-lane, 6-lane divided roadway, respectively; LOS = Level of Service. Vph = Vehicles per hour

Project Impacts to Area Roadway Network Link Analysis

Utilizing the adopted LOS traffic volumes, the area roadway network is evaluated to determine project impacts to the LOS capacity in the future 2026.

None of the analyzed links are projected to exceed the adopted LOS standard with or without the project at 2026 future build-out conditions. Based on this criterion, this project does not create any significant impacts to the area roadway network. **Table 6, Roadway Link Level of Service** illustrates the LOS impacts of the project on the surrounding roadway network.

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 – With Project in the Year 2026**

Roadway Link	Roadway Link Location	Peak Hr Capacity Volume (vph)	Two-Way Project Vol Added) ⁽¹⁾ (vph)	2026 Peak Hr Volume w/Project (vph) ⁽²⁾	% Volume Capacity Impact By Project	Remaining Volume Capacity (vph)	LOS Standard Exceeded Without Project? Yes/No	LOS Standard Exceeded With Project? Yes/No
Gordon Dr	21 st Ave S to Galleon Dr	1,570 (2-way)	67	1,486	4.3%	84	No	No
Gordon Dr	Galleon Dr to Kingstown Dr	1,570 (2-way)	90	1,509	5.7%	61	No	No
Gordon Dr	South of Kingstown Dr	1,570 (2-way)	45	1,464	2.9%	106	No	No

Note(s):
 1) Refer to **Table 3** of this report.
 2) 2026 Projected Volume = 2026 background (refer to **Table 4**) + Project Volume added.
 3) vph = vehicles per hour

Site Access Analysis

Connection to the roadway network is an existing full movement driveway onto Gordon Drive. For more details refer to **Appendix A: Project Master Site Plan**.

Gordon Drive is an undivided two-lane City public local roadway. This roadway has a posted speed of 30-mph.

The estimated project traffic at site access drive is illustrated in **Appendix E: Turning Movement Exhibits**.

Port Royal Club Access – Gordon Drive

The project is expected to generate a total of 36 vph and 46 vph inbound right-turning movements during the AM and PM peak hours, respectively. Applying County turn lane warrants of 40 vph for a right turn lane, the volumes meet the warrant criteria. Space is provided on the side of the road to allow vehicles to move out of the travel lane before making the turn into the project site. To preserve the existing bike lane, a right turn lane is not recommended at this location.

The project is expected to generate a total of 18 vph and 23 vph inbound left-turning movements during the AM and PM peak hours, respectively. Applying County turn lane warrants of 20 vph

for a left turn lane, the volumes meet the warrant criteria. To preserve the wide shoulders used for walkers and bikers, it is not recommended that the left turn lane be constructed.

Port Royal has a heavy walker and biker population. Turn lanes in this area could impact pedestrian and bike mobility and safety. Turn lanes would require pedestrians to cross a wider street which would increase exposure to vehicles traveling on the roadway. In addition, the inclusion of the turn lanes would disrupt the existing bike lane. As a measure to increase safety at this location, rapid flashing beacons for the pedestrian crosswalk will be used to alert drivers of pedestrians in the existing crosswalk and promote safer conditions to encourage pedestrian activity at this location.

Port Royal Club Tennis Center Access – Gordon Drive

The project is expected to generate a total of 15 vph and 15 vph inbound left-turning movements during the AM and PM peak hours, respectively. Applying County turn lane warrants of 20 vph for a left turn lane, the volumes do not meet the warrant criteria. The project is expected to generate a total of 6 vph and 6 vph inbound right-turning movements during the AM and PM peak hours, respectively. Applying County turn lane warrants of 40 vph for a right turn lane, the volumes do not meet the warrant criteria.

Port Royal Club Tennis Center Access – Kingstown Drive

The project is expected to generate a total of 6 vph and 6 vph inbound left-turning movements during the AM and PM peak hours, respectively. Applying County turn lane warrants of 20 vph for a left turn lane, the volumes do not meet the warrant criteria. The project is expected to generate a total of 15 vph and 15 vph inbound right-turning movements during the AM and PM peak hours, respectively. Applying County turn lane warrants of 40 vph for a right turn lane, the volumes do not meet the warrant criteria.

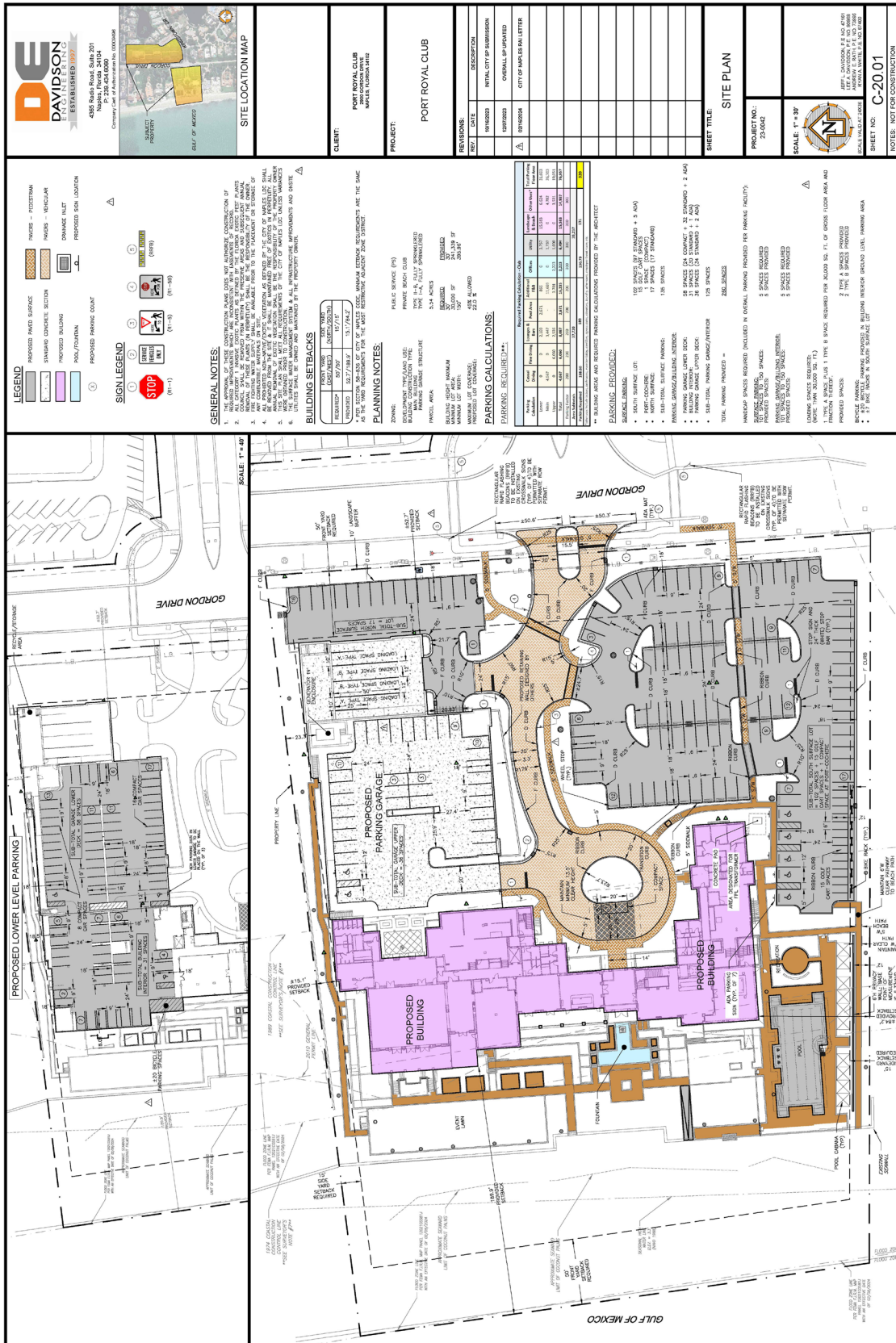
Improvement Analysis

Based on the analysis and trip distribution, the proposed project is not an adverse traffic generator for the roadway network at this location. There is adequate and sufficient roadway capacity to accommodate the proposed development generated trips without adversely affecting adjacent roadway network level of service. Based upon the results of the turn lane evaluation, no turn lane improvements are recommended at the project access. Operationally, pedestrian safety improvements are recommended for the Gordon Dr crossing at Kingston Dr.

Mitigation of Impact

The developer proposes to pay the appropriate City of Naples Road Impact Fees as building permits are issued for the project, as applicable.

Appendix A:
Project Master Site Plan



Appendix B:
Initial Meeting Checklist

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: October 25, 2023 Time: N/A

Location: Online Meeting

People Attending:

Name, Organization, and Telephone Numbers

- 1) Alison Bickett, City of Naples
- 2) Norman Trebilcock, TCS
- 3) Bailey Martin, TCS
- 4) Chris Lucas, Hart Howerton
- 5) Tim McCarthy, Hart Howerton

Study Preparer:

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

Organization: Trebilcock Consulting Solutions, PA

Address & Telephone Number: 2800 Davis Boulevard, Suite 200, Naples, FL 34104.

Telephone Number: 239-566-9551

Reviewer(s):

Reviewer's Name & Title: Alison Bickett, PE, Street and Stormwater Director

Organization: City of Naples

Telephone Number: 239-213-5014

Applicant:

Applicant's Name: Port Royal Club

Address: 2900 Gordon Drive, Naples, FL 34102

Telephone Number: 239-261-7615

Proposed Development:

Name: Port Royal Club – Site Plan Petition

Location: 2900 Gordon Drive – west leg of the intersection of Gordon Dr and Kingstown Dr.

Land Use Type: Country Club

ITE Code #: 495 – Recreational Community Center; 931 – Fine Dining Restaurant

Description: The Port Royal Club operated before Hurricane Ian with a fine dining restaurant and a recreational community center for the benefit of the residents of Port Royal. The current re-development of Port Royal Club proposes a total square footage of 77,859 sf, with 10,200 sf of fine dining and 67,659 sf dedicated to the rec community center. For details, see **Figure 1 –**

Project Location Map.

Figure 1 – Project Location Map



Zoning

Existing: PS – Public Service

Comprehensive plan recommendation: No Change

Requested: To allow the proposed re-development.

Findings of the Preliminary Study:

Study type: Since the site is less than 10 acres, this study is classified as a Minor TIS. The TIS will include weekday AM and PM peak hour trip generation, traffic distribution and assignments, and level of service analysis. The TIS will provide net new trip generation based on the existing conditions and the proposed re-development.

Operational Site Access Analysis – based on the proposed AM and PM peak hour total external trip generation of Port Royal Club. The site has an existing full movement driveway on Gordon Drive.

Roadway concurrency analysis – Weekday external net new traffic (proposed versus existing land uses) for the PM peak hour period.

Internal Capture: No internal capture reductions are considered for this project.

Pass-by Rates: No pass-by reductions are considered for this project.

Level of Service (LOS) is “C” for all City of Naples roadways in this analysis except as follows: 5th Avenue S, between US 41 and Gulf Shore Boulevard, which is defined as a constrained facility and is exempt from level of service requirements; US 41 from Central Avenue to Four Corners is LOS “D”; US 41 from Four Corners to Davis Boulevard is LOS “E”; and Goodlette-Frank Road from Central Avenue to US 41 is LOS “E”.

Pedestrian Safety – Potential options for safety improvements for the crosswalks on Gordon Drive will be discussed.

Study Type:

Minor TIS Major TIS

Study Area:

Boundaries: East - Gordon Dr

Additional intersections to be analyzed: N/A

Horizon Year(s): 2026

Analysis Time Period(s): Concurrency – Weekday PM peak hour net new trips, Operational – Weekday AM and PM peak hour

Future Off-Site Developments: N/A

Source of Trip Generation Rates: ITE 11th Edition

Reductions in Trip Generation Rates:

None: N/A

Pass-by trips: N/A

Internal trips (PUD): N/A

Transit use: N/A

Other: N/A

Horizon Year Roadway Network Improvements:

Horizon Year: 2026

No Roadway Network Improvements

Methodology & Assumptions:

Non-site traffic estimates: City of Naples traffic counts and Collier County 2023 AUIR

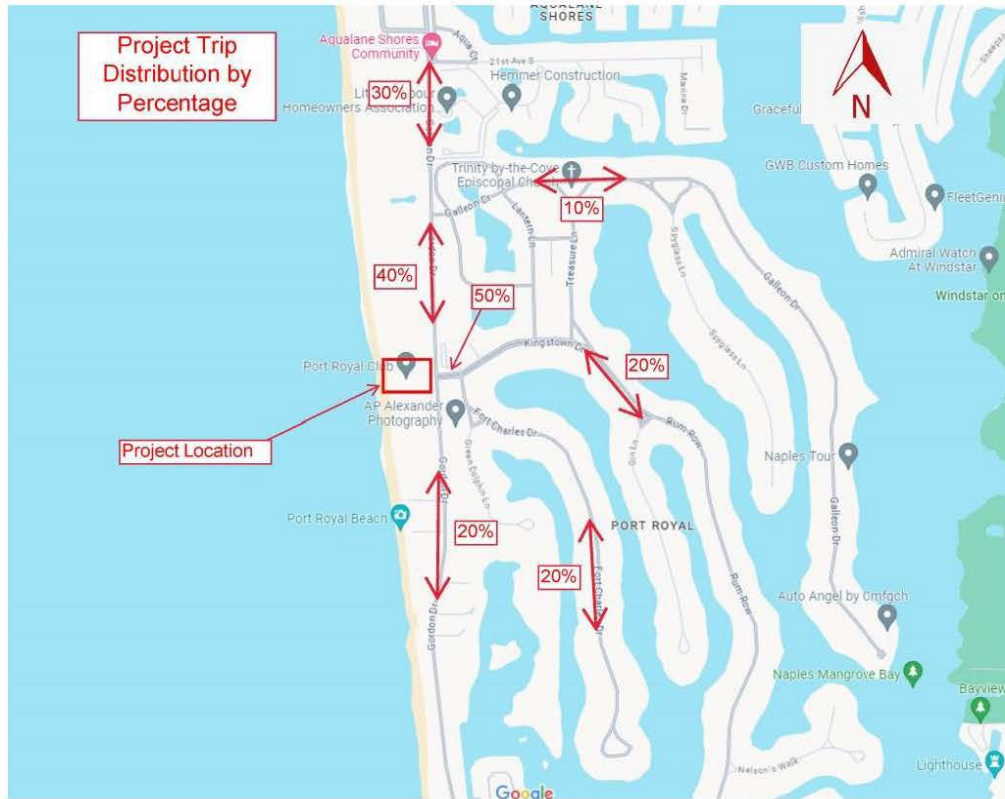
Site-trip generation: OTISS – ITE 11th Edition

Trip distribution method: Engineer’s Estimate – refer to **Figure 2** on the following page

Traffic assignment method: project trip generation with background growth

Traffic growth rate: historical growth rate or 1% minimum for City of Naples streets, 2% minimum for Collier County or FDOT streets.

Figure 2 – Project Traffic Distribution by Percentage



Special Features: (from preliminary study or prior experience)

Accident 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: N/A

Data Sources: City of Naples Traffic Counts, CC 2023 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

=====

SIGNATURES

Norman Trebilcock
Study Preparer—Norman Trebilcock

Reviewers

Applicant

Appendix C:

Trip Generation Calculations ITE 11th Edition

Land Use: 495 Recreational Community Center

Description

A recreational community center is a stand-alone public facility similar to and including YMCAs. These facilities often include classes and clubs for adults and children, a day care or nursery school, meeting rooms and other social facilities, swimming pools and whirlpools, saunas, tennis, racquetball, handball, pickle ball, basketball and volleyball courts; outdoor athletic fields/courts, exercise classes, weightlifting and gymnastics equipment, locker rooms, and a restaurant or snack bar. Public access is typically allowed and a membership fee may be charged. Racquet/tennis club (Land Use 491), health/fitness club (Land Use 492), and athletic club (Land Use 493) are related land uses.

Additional Data

The technical appendices provide supporting information on time-of-day distributions for this land use. The appendices can be accessed through either the ITETripGen web app or the trip generation resource page on the ITE website (<https://www.ite.org/technical-resources/topics/trip-and-parking-generation/>).

The sites were surveyed in the 1980s, the 1990s, the 2000s, the 2010s, and the 2020s in Alberta (CAN), Arizona, Indiana, Minnesota, New Hampshire, New York, Oregon, Pennsylvania, Tennessee, and Utah.

Source Numbers

281, 410, 443, 571, 618, 705, 719, 850, 866, 971, 1055

Land Use: 931 Fine Dining Restaurant

Description

A fine dining restaurant is a full-service eating establishment with a typical duration of stay of at least 1 hour. A fine dining restaurant generally does not serve breakfast; some do not serve lunch; all serve dinner. This type of restaurant often requests and sometimes requires a reservation and is generally not part of a chain. A patron commonly waits to be seated, is served by wait staff, orders from a menu and pays after the meal. Some of the study sites have lounge or bar facilities (serving alcoholic beverages), but meal service is the primary draw to the restaurant. Fast casual restaurant (Land Use 930) and high-turnover (sit-down) restaurant (Land Use 932) are related uses.

Additional Data

If the fine dining restaurant has outdoor seating, its area is not included in the overall gross floor area. For a restaurant that has significant outdoor seating, the number of seats may be more reliable than GFA as an independent variable on which to establish a trip generation rate.

The sites were surveyed in the 1980s, the 1990s, and the 2010s in Alberta (CAN), California, Colorado, Florida, Indiana, Kentucky, New Jersey, and Utah.

Source Numbers

126, 260, 291, 301, 338, 339, 368, 437, 440, 976, 1053



Project Information	
Project Name:	Port Royal Club - Proposed Beachside
No:	
Date:	2/14/2024
City:	
State/Province:	
Zip/Postal Code:	
Country:	
Client Name:	
Analyst's Name:	
Edition:	Trip Generation Manual, 11th Ed

Land Use	Size	Weekday		AM Peak Hour		PM Peak Hour	
		Entry	Exit	Entry	Exit	Entry	Exit
495 - Recreational Community Center (General Urban/Suburban)	70.9 1000 Sq. Ft. GFA	1022	1021	89	46	83	94
Reduction		0	0	0	0	0	0
Internal		0	0	0	0	0	0
Pass-by		0	0	0	0	0	0
Non-pass-by		1022	1021	89	46	83	94
931 - Fine Dining Restaurant (General Urban/Suburban)	6.06 1000 Sq. Ft. GFA	254	254	0	0	31	16
Reduction		0	0	0	0	0	0
Internal		0	0	0	0	0	0
Pass-by		0	0	0	0	0	0
Non-pass-by		254	254	0	0	31	16
Total		1276	1275	89	46	114	110
Total Reduction		0	0	0	0	0	0
Total Internal		0	0	0	0	0	0
Total Pass-by		0	0	0	0	0	0
Total Non-pass-by		1276	1275	89	46	114	110

PERIOD SETTING

Analysis Name : Weekday
Project Name : Port Royal Club - Proposed Beachside **No :**
Date: 2/14/2024 **City:**
State/Province: **Zip/Postal Code:**
Country: **Client Name:**
Analyst's Name: **Edition:** Trip Generation Manual, 11th Ed

Land Use	Independent Variable	Size	Time Period	Method	Entry	Exit	Total
495 - Recreational Community Center (General Urban/Suburban)	1000 Sq. Ft. GFA	70.9	Weekday	Average 28.82	1022 ⁽⁰⁾ 50%	1021 ⁽⁰⁾ 50%	2043 ⁽⁰⁾
931 - Fine Dining Restaurant (General Urban/Suburban)	1000 Sq. Ft. GFA	6.06	Weekday	Average 83.84	254 50%	254 50%	508

(0) indicates small sample size, use carefully.

PERIOD SETTING

Analysis Name : AM Peak Hour
Project Name : Port Royal Club - Proposed Beachside **No :**
Date: 2/14/2024 **City:**
State/Province: **Zip/Postal Code:**
Country: **Client Name:**
Analyst's Name: **Edition:** Trip Generation Manual, 11th Ed

Land Use	Independent Variable	Size	Time Period	Method	Entry	Exit	Total
495 - Recreational Community Center (General Urban/Suburban)	1000 Sq. Ft. GFA	70.9	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.	Average 1.91	89 66%	46 34%	135
931 - Fine Dining Restaurant (General Urban/Suburban)	1000 Sq. Ft. GFA	6.06 ⁽¹⁾	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.	Average 0.73	N/A 0%	N/A 0%	4 ⁽⁰⁾

(0) indicates directional distribution was not provided in the source document. This study cannot be used for trip distribution.

(1) indicates size out of range.

PERIOD SETTING

Analysis Name : PM Peak Hour
Project Name : Port Royal Club - Proposed Beachside **No :**
Date: 2/14/2024 **City:**
State/Province: **Zip/Postal Code:**
Country: **Client Name:**
Analyst's Name: **Edition:** Trip Generation Manual, 11th Ed

Land Use	Independent Variable	Size	Time Period	Method	Entry	Exit	Total
495 - Recreational Community Center (General Urban/Suburban)	1000 Sq. Ft. GFA	70.9	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.	Average 2.5	83 47%	94 53%	177
931 - Fine Dining Restaurant (General Urban/Suburban)	1000 Sq. Ft. GFA	6.06	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.	Average 7.8	31 66%	16 34%	47

Land Use: 491 Racquet/Tennis Club

Description

A racquet/tennis club is a privately-owned facility that primarily caters to racquet sports (tennis, racquetball, pickle ball, handball, squash) both indoor and outdoor. This land use may also provide ancillary facilities, such as a whirlpool, sauna, spa, weight room, snack bar, or retail store. Some sites offer daycare. Some sites offer competitive team sports. These facilities are membership clubs that may allow access to the general public for a fee. Tennis courts (Land Use 490), health/fitness club (Land Use 492), athletic club (Land Use 493), and recreational community center (Land Use 495) are related uses.

Additional Data

Some of the sites in this land use offered racquet/tennis competitions.

The sites were surveyed in the 1980s and the 1990s in Alberta (CAN) and California.

Source Numbers

440, 970

Project Information	
Project Name:	Port Royal Club - Tennis Center
No:	
Date:	12/5/2023
City:	
State/Province:	
Zip/Postal Code:	
Country:	
Client Name:	
Analyst's Name:	
Edition:	Trip Generation Manual, 11th Ed

Land Use	Size	PM Peak Hour	
		Entry	Exit
491 - Racquet/Tennis Club (General Urban/Suburban)	9 Tennis Courts	0	0
Reduction		0	0
Internal		0	0
Pass-by		0	0
Non-pass-by		0	0
492 - Health/Fitness Club (General Urban/Suburban)	13.32 1000 Sq. Ft. GFA	26	20
Reduction		0	0
Internal		0	0
Pass-by		0	0
Non-pass-by		26	20
Total		26	20
Total Reduction		0	0
Total Internal		0	0
Total Pass-by		0	0
Total Non-pass-by		26	20

PERIOD SETTING							
Analysis Name :	Weekday						
Project Name :	Port Royal Club - Tennis Center			No :			
Date:	12/5/2023			City:			
State/Province:				Zip/Postal Code:			
Country:				Client Name:			
Analyst's Name:				Edition:	Trip Generation Manual, 11th Ed		
Land Use	Independent Variable	Size	Time Period	Method	Entry	Exit	Total
491 - Racquet/Tennis Club (General Urban/Suburban)	Tennis Courts	9	Weekday	Average 27.71	125 ⁽⁰⁾ 50%	124 ⁽⁰⁾ 50%	249 ⁽⁰⁾
<i>(0) indicates small sample size, use carefully.</i>							

PERIOD SETTING							
Analysis Name :	PM Peak Hour						
Project Name :	Port Royal Club - Tennis Center			No :			
Date:	12/5/2023			City:			
State/Province:				Zip/Postal Code:			
Country:				Client Name:			
Analyst's Name:				Edition:	Trip Generation Manual, 11th Ed		
Land Use	Independent Variable	Size	Time Period	Method	Entry	Exit	Total
491 - Racquet/Tennis Club (General Urban/Suburban)	Tennis Courts	9	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.	Average 3.82	N/A 0%	N/A 0%	34 ⁽⁰⁾
492 - Health/Fitness Club (General Urban/Suburban)	1000 Sq. Ft. GFA	13.32	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.	Average 3.45	26 57%	20 43%	46
<i>(0) indicates directional distribution was not provided in the source document. This study cannot be used for trip distribution.</i>							

Appendix D:
City of Naples – Two-Way Traffic Volumes

Two-way Volumes (Vehicles Per Day) For collector streets Arterials. In the City Of Naples

TRAFFIC COUNT STATION NUMBER	ARTERIAL OR COLLECTOR STREET	MAR. 2023	1ST QTR PEAK HOUR	JUN. 2023	2ND QTR PEAK HOUR	SEPT. 2023	3RD QTR PEAK HOUR	DEC. 2023	4TH QTR PEAK HOUR	MAXIMUM 2023	2022 PEAK HOUR
8	GOLDEN GATE PKWY (CR 886)	23,087	1,885	18,721	1,543						
10	GOODLETTE ROAD (CR 851)	43,068	3,524	39,867	3,427						
11	GOODLETTE RD	32,858	2,670	24,682	1,995						
14	US 41 (US41/NEAPOLITAN WAY)	54,828	4,055	44,311	3,685						
15	US 41 (N OF CR 886)	43,162	3,519	33,430	2,858						
16	US 41 (S OF CR 886)	42,040	3,336	32,805	2,742						
19	US 41 (6 AV N/7 AV N)	37,599	3,207	30,565	2,625						
23	US 41 (W OF CR 851)	46,537	3,849	49,320	3,856						
24	US 41 (E OF CR 851)	64,911	5,456	7,624	694						
30	PARKSHORE DRIVE	15,104	1,325	2,216	218						
34	GULF SHORE BLVD N	4,524	448	4,082	391						
37	HARBOUR DRIVE	5,912	519	887	89						
38	CREECH ROAD	1,064	106	3,961	385						
39	MOORING LINE DRIVE	6,006	623	7,230	743						
40	CRAYTON ROAD	7,230	743	1,144	116						
43	22ND AVENUE NORTH	3,219	313	3,191	332						
44	ORCHID DRIVE	4,242	421	3,950	492						
45	FLEISCHMANN BLVD	5,052	612	3,273	308						
47	ANCHOR RODE DR	5,717	576	2,444	294						
48	GULF SHORE BLVD	2,774	275								
49	BANYAN BLVD										
53	SOUTH GOLF DR										
54	7TH AVE NORTH (8TH ST)										
55	7TH AVENUE NORTH	4,452	465	3,544	370						
56	10TH STREET	3,048	306	2,082	220						
57	5TH AVENUE NORTH	3,736	352	3,033	283						
62	CENTRAL AVENUE			4,496	416						
63	8TH STREET	3,510	340	948	109						
64	3RD AVENUE SOUTH	8,945	857	4,945	439						
70	5TH AVENUE SOUTH	9,311	720	7,286	566						
71	10TH STREET	13,486	1,051	9,850	891						
72	9TH STREET	8,964	792	6,250	555						
76	BROAD AVENUE SOUTH	7,822	618	5,629	536						
77	3RD STREET	5,321	472	3,477	310						
78	2ND STREET	3,522	345	2,180	235						
79	GORDON DRIVE	11,223	1,377	7,491	764						
83	SANDPIPER ST	24,788	1,849	5,945	552						
85	GULF SHORE BLVD SO	4,797	529	3,089	309						
86	4TH AVENUE NORTH	6,880	593	5,657	502						
87	OLD TRAIL DR	4,756	497	3,149	394						
89	NEAPOLITAN WAY	8,140	777	3,993	399						
90	CRAYTON RD	10,137	1,467	12,928	2,608						
91	WEST BLVD	3,829	444	1,727	200						

Two-way Volumes (Vehicles Per Day) For collector streets Arterials. In the City of Naples

TRAFFIC COUNT STATION NUMBER	ARTERIAL OR COLLECTOR STREET	MAR. 2014	1ST QTR PEAK HOUR	JUN. 2014	2ND QTR PEAK HOUR	SEPT. 2014	3RD QTR PEAK HOUR	DEC. 2014	4TH QTR PEAK HOUR	MAXIMUM 2014	2014 PEAK HOUR	LOS C PEAK HOUR	VOL/CAP RATIO	LOS
8	GOLDEN GATE PKWY (CR 886)	23,931	2,114	16,901	1,492	18,115	1,553	23,052	2,084	23,931	2,114	4,870	0.43	C
10	GOODLETTE ROAD (CR 851)	34,944	3,088	27,798	2,645	27,655	2,686	23,052	2,084	34,944	3,088	5,680	0.54	C
15	US 41 (N OF CR 886)	45,684	3,907	32,793	2,845	31,239	2,556	39,712	3,346	45,684	3,907	5,190	0.75	C
16	US 41 (S OF CR 886)	44,870	3,683	31,877	2,770	30,570	2,493	38,418	3,148	44,870	3,683	5,190	0.71	C
19	US 41 (6 AV N/7 AV N)	41,224	3,442	28,574	2,550	27,571	2,243	34,746	2,828	41,224	3,442	5,420	0.64	C
23	US 41 (W OF CR 851)	46,187	3,665	31,101	2,395	29,015	2,346	37,318	3,187	46,187	3,665	5,420	0.68	C
24	US 41 (E OF CR 851)	65,989	5,301	46,609	3,664	44,224	3,590	55,624	4,682	65,989	5,301	6,300	0.84	C
30	PARKSHORE DRIVE	14,868	1,522	7,358	676	7,448	676	11,383	1,022	14,868	1,522	1,660	0.92	C
34	GULF SHORE BLVD N	4,721	537	2,151	226	2,032	217	3,286	346	4,721	537	1,780	0.30	B
37	HARBOUR DRIVE	6,054	599	3,751	376	3,592	377	4,975	435	6,054	599	1,660	0.36	B
38	CREECH ROAD	1,121	101	935	88	851	76	961	94	1,121	101	1,570	0.06	A
39	MOORING LINE DRIVE	7,147	734	3,942	347	3,453	355	5,033	460	7,147	734	1,660	0.44	C
40	CRAYTON ROAD	5,812	627	3,815	364	3,453	355	5,727	553	5,812	627	1,320	0.48	C
43	22ND AVENUE NORTH	3,588	366	2,441	229	2,542	313	3,231	364	3,588	366	1,570	0.23	B
44	ORCHID DRIVE	4,209	465	3,129	293	2,868	300	3,878	372	4,209	465	1,570	0.30	B
45	FLEISCHMANN BLVD	5,345	588	4,219	450	3,901	423	4,861	627	5,345	627	1,240	0.51	C
48	GULF SHORE BLVD	7,840	751	3,483	326	2,893	288	4,895	425	7,840	751	1,960	0.38	B
49	BANYAN BLVD	2,757	347	2,017	192	1,607	166	2,232	205	2,757	347	1,570	0.22	A
55	7TH AVENUE NORTH	5,151	489	3,739	343	3,636	349	4,354	408	5,151	489	1,080	0.46	C
56	10TH STREET	3,308	346	2,455	300	2,360	240	2,790	283	3,308	346	1,320	0.26	B
57	5TH AVENUE NORTH	3,769	354	3,139	296	2,868	264	3,405	353	3,769	354	1,080	0.33	B
62	CENTRAL AVENUE	8,687	805	5,197	490	5,070	519	7,320	669	8,687	805	1,960	0.41	B
63	8TH STREET	4,797	481	2,892	265	3,002	308	3,877	388	4,797	481	1,080	0.45	C
64	3RD AVENUE SOUTH	9,544	878	5,544	736	4,420	539	5,564	581	9,544	878	1,570	0.56	C
70	5TH AVENUE SOUTH	9,876	828	7,039	544	6,788	531	8,424	639	9,876	828	1,090	0.78	C
72	9TH STREET	10,291	835	5,980	532	5,414	473	7,559	671	10,291	835	1,570	0.53	C
76	BROAD AVENUE SOUTH	7,003	643	4,448	438	4,222	413	6,277	639	7,003	643	1,080	0.60	C
77	3RD STREET	5,871	468	3,839	319	3,426	276	4,746	418	5,871	468	1,320	0.35	B
79	GORDON DRIVE	8,855	885	6,613	651	6,017	650	8,277	813	8,855	885	1,570	0.56	C
83	SANDPIPER ST	6,752	537	5,087	428	4,691	405	5,501	434	6,752	537	1,570	0.34	C
85	GULF SHORE BLVD SO	5,883	596	2,556	258	2,764	275	3,403	388	5,883	596	1,420	0.42	C
86	4TH AVENUE NORTH	6,679	614	4,765	443	4,678	439	6,189	561	6,679	614	1,570	0.39	B
89	NEAPOLITAN WAY	7,485	847	5,199	467	4,615	434	6,581	651	7,485	847	1,960	0.43	B
91	WEST RD	4,195	508	2,638	354	2,117	221	3,201	341	4,195	508	1,570	0.32	B
		474,417		324,024		309,117		389,852		474,417				

3/20/2015

Appendix E:
Turning Movement Exhibits

