TRAFFIC IMPACT STUDY
NAPLES PARKING GARAGE

City of Naples, Collier County, Florida

Prepared for:
City of Naples Community Redevelopment Agency

Prepared By:
Stantec Consulting Services Inc.
Stantec Project No.: 215617573

Stantec

January 2023

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PROFESSIONAL ENGINEERING CERTIFICATION

I hereby certify that I am a registered Professional Engineer in the State of Florida practicing with Stantec Consulting Services Inc. ("Stantec"), an organization authorized to operate as an engineering business by the State of Florida Department of Business and Professional Regulation, Florida Board of Professional Engineers, and that I have prepared or approved the evaluation, findings, opinions, conclusions, or technical advice for the following project:

Project: Naples Parking Garage

Location: City of Naples, Collier County, Florida

Prepared for: City of Naples Community Redevelopment Agency

I hereby acknowledge that the procedures and references used to develop the results contained in these computations are standard to the professional practice of transportation engineering as applied through professional judgement and experience.

Christopher Benitez, P.E., PTOE, RSP
Print/Type Name

74035
Professional Engineer (PE) License No.

Senior Engineer
Title

Stantec Consulting Services Inc.
Company

Digitally signed by Christopher Benitez
Date: 2023.01.13 10:02:00-05'00'
Reason: This item has been digitally signed and sealed. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.
Contact Info: Chris Benitez, PE; Project Manager, Transportation; Stantec Consulting Services Inc.

1 INTRODUCTION

The City of Naples has retained Stantec Consulting Services, Inc. to conduct a Traffic Impact Study to support the site development plan application for the Naples Parking Garage project which is located near 1090 1st Avenue S within the City of Naples, Collier County, Florida. The project will include a multi-level public parking garage with a minimum of 360 parking spaces according to the Public Parking Agreement executed on June 16, 2022 between Gulfshore Playhouse, Inc., Downtown Naples, LLC (known as the Wynn District), City of Naples Community Redevelopment Agency (CRA), and City of Naples.

1.1 Project Description

The proposed Naples Parking Garage will include a minimum of 360 parking spaces and the estimated opening for the parking garage is Spring of 2024. Full access to the parking garage will be provided at three locations: 1) along 12th Street South via a driveway; 2) along 12th Street South through an alleyway north of the parking garage structure; and 3) along 1st Avenue South via an alleyway to the west of the future Wynn property. A site plan is provided in **Appendix A.**

According to the Planned Development (PD) document for City of Naples Ordinance 2021-14658, the parking garage is subject to the Public Service District Development Standards with the following minimum parking allocations:

- 123 parking spaces for Gulfshore Playhouse, Inc.
- 65 parking spaces for Wynn District
- 12 parking spaces to the development and redevelopment of "Grantee's Property" as described in the PD document

After allocations, there are 160 remaining parking spaces which are expected to be utilized by the Naples Square Planned Development residences, workers, and visitors.

1.2 Purpose and Methodology

This report documents a traffic impact study which provides a preliminary valet operation plan for the Gulfshore Playhouse and traffic operations at the access points of the parking garage. It is understood that the Gulfshore Playhouse, Inc. will provide an updated and final valet operation plan. A turn lane analysis will serve as the operational analysis for this study. Traffic data will be based on the most recent Naples Square Planned Development Level of Service (LOS) Build-Out Analysis dated August 2021.

2 PRELIMINARY VALET OPERATIONS

A preliminary valet operations plan was prepared regarding the Gulfshore Playhouse. The main purpose of this plan is to demonstrate that a suitable and reasonable parking plan is available. It is understood that this plan will be finalized by the Gulfshore Playhouse, Inc.

The Gulfshore Playhouse is a proposed entertainment venue located at the southwest quadrant of the intersection of Goodlette Frank Road and 1st Avenue S within the City of Naples, Florida. The site will include a main theatre, studio theatre, rehearsal rooms, classrooms, and food and beverage services.

The Gulfshore Playhouse includes the following key uses:

- Main theatre with 372 seats
- Studio theatre with 148 seats
- Classroom with 809 square feet of space

The anticipated opening year of the project is expected to coincide with the opening of the Naples Square Parking Garage. The Naples Square Parking Garage will be utilized by the Gulfshore Playhouse for valet operations and self-parking. Valet Parking is a proposed service that the Gulfshore Playhouse will offer guests in order to improve and expedite parking operations into and out of the site.

The valet pick-up and drop-off-area is offered through a semi-circular, one-way driveway along 12th Street S. Vehicles enter the driveway from the south side and exit at the north end just south of 1st Avenue. The primary timeframe of the valet parking will be for main theatre events.

2.1 City of Naples Code of Ordinance

The code describing valet parking plans is contained in Sec. 50-103(e) of the City of Naples Code of Ordinances. The code stipulates:

(1) The intent of this subsection is to allow options for existing buildings which do not meet the standards for required parking; to provide for diversification of use within existing buildings, both conforming and nonconforming; and to encourage vitality, innovation, ingenuity, and commercial viability where, in the opinion of city council, it is appropriate.

(2) If valet parking is provided as a service to a commercial use or building, the city council may approve through the conditional use process provided for in section 46-34 that a portion of the parking required under section 50-104 be provided through a valet parking plan. A valet parking plan shall include:

a. A detailed description of the valet parking service operation (the "Operations Plan").

b. A site plan showing the location of the parking, the spaces, or areas available to the valet service, the area for drop off and a pedestrian circulation plan (the "Site Plan");

c. A signage plan identifying the valet service and, if appropriate, the parking spaces or areas only available to the valet service (the "Signage Plan"); and

d. A commitment to maintain the operation of the valet service for the duration of time the use or building requires such parking, except as provided in subsection (e)(4) of this section (the "Commitment").

e. Valet parking that uses a portion of the public right-of-way, for pick-up or drop-off, or that uses the public right-of-way to transport vehicles to the parking area

shall comply with Section 17: On Street Parking and Valet Parking of the Public Right-of-Way Construction Standards Handbook (the "Right of Way Permit").

(3) If valet parking is provided as a service to a commercial building or use, the spaces, access aisles and driveways identified for valet parking will be exempted from the requirements of this section to allow for stacked parking.

(4) The original valet parking plan must be approved by the city council as part of the issuance of a conditional use permit. As a part of the conditional use process, the city council may authorize the city manager to allow adjustments to be made in the plan if any of the following conditions exist:

a. The seasonal or nonpeak hour/nonpeak day demands warrants;

b. The nature or extent of tenant occupancy changes; or

c. The physical layout of the valet parking area is proposed to be changed.

Any amendments or adjustments made to the approved plan must comply with the criteria contained in this subsection and adhere to any stipulations which may be imposed by the city council as part of its issuance of the conditional use approval (the "Amendments").

2.2 Operations Plan

A preliminary valet operations plan is depicted on the site plan in **Appendix B**. The operations is described as follows:

- Valet parking service will be provided to Gulfshore Playhouse event attendees at the access point along 12th Street S which is expected to remain a private roadway
- The access driveways of the Gulfshore Playhouse and Naples Parking Garage will be ungated to allow for efficient operations
- It is expected that the Gulfshore Playhouse ticketing and events staff will provide parking instructions to event attendees which includes the valet parking service and self-parking options
- It is expected that the Gulfshore Playhouse will provide professional valet service and utilize state of the practice methods and technologies to allow valet staff to efficiently locate and move vehicles
- It is expected that when event attendees arrive at the valet service area, valet staff will provide a form of a valet ticket to redeem their vehicle, and then the vehicle will be accessed by valet staff.
- In order to park vehicles, valet staff will drive vehicles along the Gulfshore Playhouse one-way driveway to access 12th Street S, turn left, and then turn right at the driveway entrance into the parking garage where they will proceed to the top floor to park vehicles.
- Event attendees wishing to obtain their vehicle from valet will proceed to the valet service area of the Gulfshore Playhouse and provide their ticket.
- Once valet staff have the vehicle ticket and request to pick-up vehicle, they will walk across 12th Street S using the midblock crossing, walk to the upper floor, enter vehicle and drive down to ground floor at 12th Street S, turn left, and then turn right into the Gulfshore Playhouse one-way driveway to the valet service area.
- An estimated that 4 vehicles may stack along the driveway of the Gulfshore Playhouse.
- Valet Parking costs, if any, will be determined by the Gulfshore Playhouse

- A signage plan will be prepared by the Gulfshore Playhouse to accompany the final Valet Parking Plan.

2.3 Commitment

It is expected that Gulfshore Playhouse will commit to a final valet parking plan and maintain the operation of the valet service for the duration of time the use or building requires such parking, except as provided in subsection (e)(4) of Section 50-103 of the City of Naples Code of Ordinance.

2.4 Right-of-Way Permit

The valet parking will use 12th Street South which is expected to remain a private roadway. Should the roadway undergo a jurisdictional change to the local governments, the valet parking shall comply with Section 17: On Street Parking and Valet Parking of the Public Right-of-Way Construction Standards Handbook of the City of Naples Codes of Ordinances.

2.5 Amendments

This is a preliminary valet parking plan and it may be amended by the Gulfshore Playhouse. A final plan will be prepared by the Gulfshore Playhouse.

3 TRAFFIC OPERATIONS

This section documents the turn lane analysis of the parking garage access points to the public and private roadway system. The analysis focuses on the PM peak hour future year traffic conditions in the year 2027 to coincide with the Naples Square Planned Development Level of Service (LOS) Build-out Analysis which was conducted in August 2021. The report is included in **Appendix C.**

3.1 Future Traffic Volumes

The future traffic volumes are based on the Naples Square Planned Development Level of Service (LOS) Build-out Analysis. The future traffic projections include future background traffic with a 1% growth rate applied to the existing traffic data which was from the years 2020 and 2021. The future traffic projections also include the Naples Square Planned Development trips from the properties that are vacant and have yet to finish construction at the time of the study. These properties include the Gulfshore Playhouse, Naples Square South, Naples Square North, 1080 1st Ave S, Wynn Site, and Naples Square Residential.

The Naples Parking Garage was assumed to be primarily utilized by the future projects detailed in the Naples Square Planned Development LOS Build-Out Analysis. The following utilization was estimated:

- 100% of the trips from the Gulfshore Playhouse, Wynn site, and 1080 1st Ave S project
- 20% of the trips from the Naples Square North
- 5% of the trips from the Naples Square South and Naples Residential

Using this utilization, the trips were reassigned from the LOS Build-out Analysis to determine the access volumes. It was assumed that the 50% of the trips from the Gulfshore Playhouse would utilize valet parking. It was also assumed that a negligible number of vehicles would utilize the alleyway along the north side of the Naples Parking Garage. Therefore, vehicles would primarily use the main access points at 12th Street S and 1st Avenue S.

The vehicle trip summary during the PM peak hour by project is summarized in **Table 1**. The estimated future turn volumes during the PM peak hour at the Naples Parking Garage Access Points are depicted in **Figure 1**.

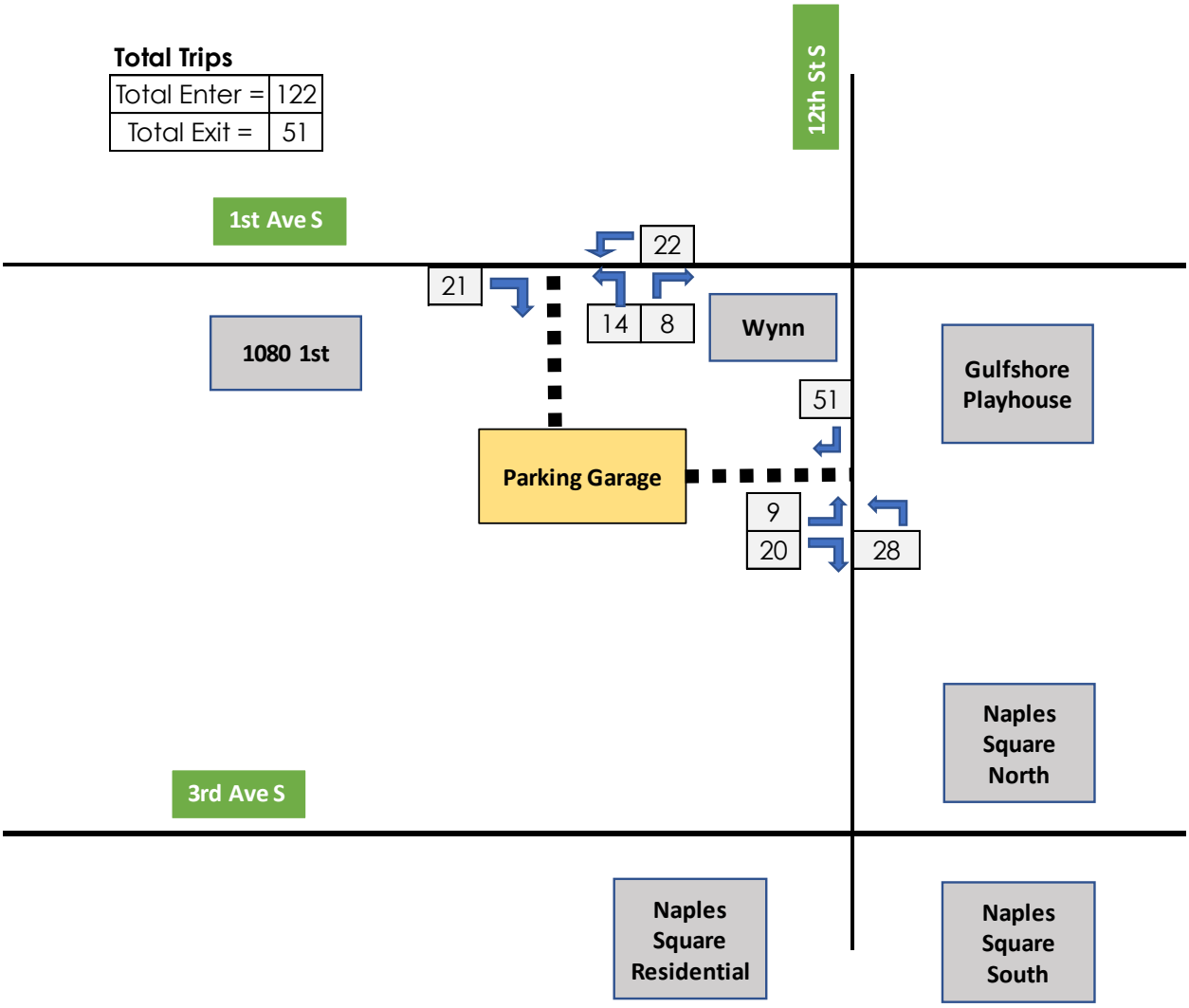
Table 1: Vehicle Trip Summary during the PM Peak Hour by Project

Project	PM Peak Hour Trips		Estimated Trips to Naples Parking Garage Access Locations	
	Enter	Exit	Enter	Exit
Gulfshore Playhouse	88	29	88	29
Wynn Site	6	4	6	4
1080 1st Ave S	17	11	17	11
Naples Square N	23	10	5	2
Naples Square S	102	89	5	4
Naples Square Residential	18	11	1	1
Total	254	154	122	51

Notes:

1) Trips estimates at the access points are primarily based on the Naples Planned Square Planned Development Level of Service (LOS Build-Out Analysis (dated August 2021)

Figure 1: Future Turn Volumes during PM Peak Hour at the Naples Parking Garage Access Points



Notes:

1) Trips estimates at the access points are primarily based on the Naples Planned Square Planned Development Level of Service (LOS Build-Out Analysis (dated August 2021)

3.2 Turn Lane Analysis

A turn lane analysis was conducted at the two main access points at the Naples Parking Garage during PM Peak hour conditions. These locations include:

- 12th Street S Access Point (full access)
- 1st Avenue S (full access)

The analysis was conducted using the Collier County Transportation Development Guidebook. According to this document, separate turn lanes are warranted for the following conditions along two lane roadways:

- Left turn lanes must be provided whenever left turn peak hour volume is 20 vehicles or more

- Right turn lanes must be provided whenever the right turn peak hour volume is 40 vehicles or

The estimated turn volumes from the previous section were used for the analysis. Therefore, the analysis is based on the year 2027 traffic conditions. The roadway turn lanes were evaluated.

The turn lane analysis results are summarized in **Table 2**. The results of the analysis show that turn lanes are warranted at 12th Street S and 1st Avenue S. Although turn lanes are warranted, it does not indicate the best solution for the access points.

Turn lanes are not recommended based on engineering judgement. Both 12th Street S and 1st Avenue S are two-lane, low volume, low speed roadways, so vehicles should find sufficient gaps to turn. Turn lanes in this particular area could impact the pedestrian mobility and safety. Turn lanes would require pedestrians to cross a wider street which would increase exposure to vehicles traveling on the roadway. The turn lanes would also result in significant impacts to approved and planned development. The turn lanes would require additional roadway dedication which would impact the implementation of the Naples Parking Garage and Gulfshore Playhouse.

Table 2: Turn Lane Analysis

Access Point	Movement	Future PM Peak Hour Volumes (2027)	Warranted?
12th Street S	Northbound Left	28	Yes
	Southbound Right	51	Yes
1st Ave S	Westbound Left	22	Yes
	Eastbound Right	21	No

4 CONCLUSION

The preliminary valet operation plan was created and shows that there is a reasonable option for the valet operations between the Gulfshore Playhouse and Naples Parking Garage. It is understood that this plan will be finalized by the Gulfshore Playhouse, Inc.

A traffic operations assessment was conducted for the main access points to the Naples Parking Garage. Although the results show that turn lanes are warranted in accordance with Collier County guidance, turn lanes are not recommended based on engineering judgement. Turn lanes are not recommended based on engineering judgement. Both 12th Street S and 1st Avenue S are two-lane, low volume, low speed roadways, so vehicles should find sufficient gaps to turn. Turn lanes in this particular area could impact the pedestrian mobility and safety. Turn lanes would require pedestrians to cross a wider street which would increase exposure to vehicles traveling on the roadway. The turn lanes would also result in significant impacts to approved and planned development. The turn lanes would require additional roadway dedication which would impact the implementation of the Naples Parking Garage and Gulfshore Playhouse.

APPENDIX A

Site Plan

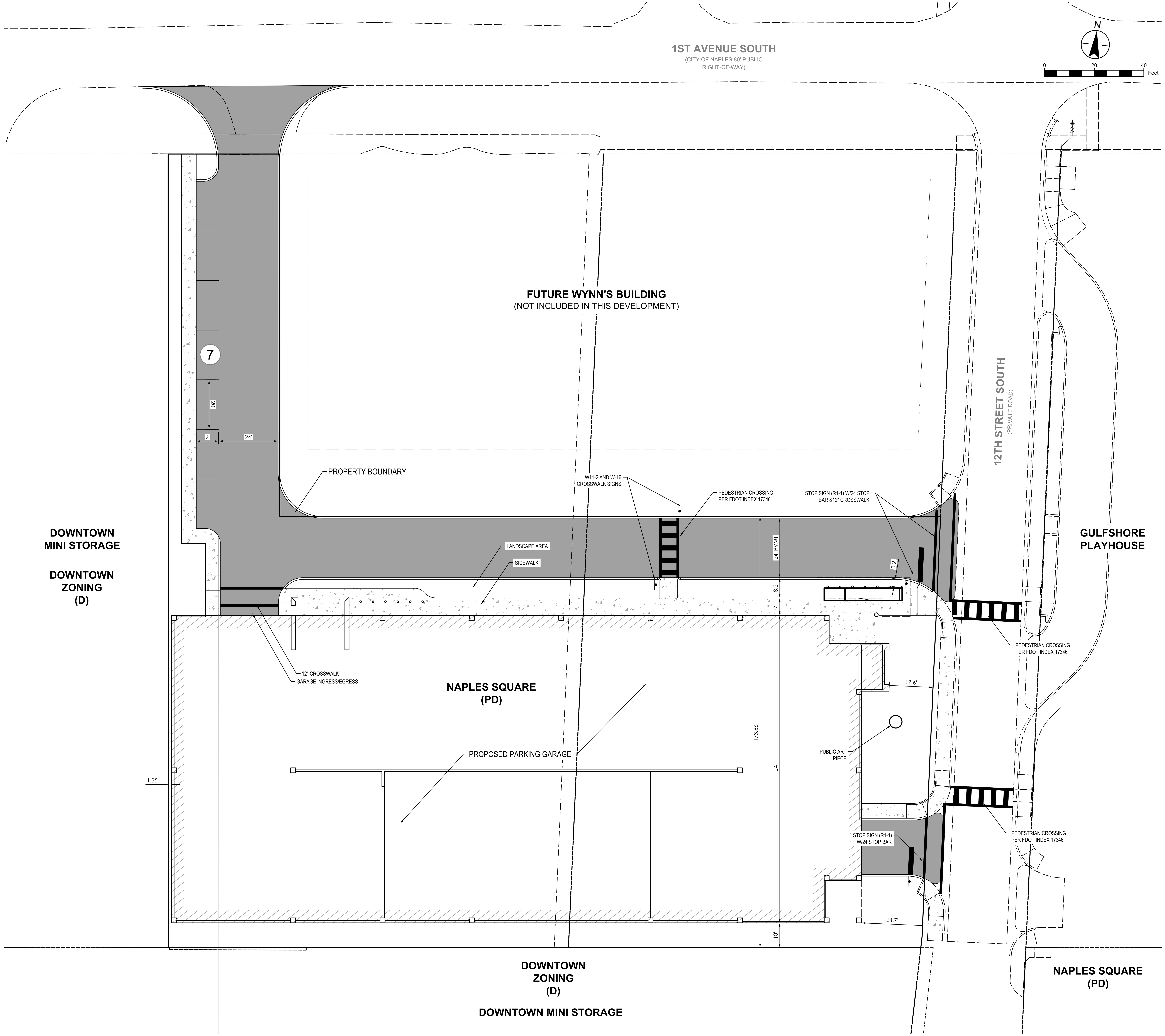
LEGEND

- CONCRETE SIDEWALK/ PAVEMENT
- ASPHALT PAVEMENT
- SUPERPAVE ASPHALT
- PAVER BRICK
- (7) PARALLEL PARKING

PARKING SUMMARY			
BUILDING DESCRIPTION	LEVEL	AREA (S.F.)	PROVIDED PARKING
PARKING GARAGE	GROUND LEVEL	34,895	59
PARKING GARAGE	SECOND LEVEL	34,735	105
PARKING GARAGE	THIRD LEVEL	34,735	105
PARKING GARAGE	ROOF LEVEL	20,765	95
TOTALS		125,130	365

LAND USE SUMMARY		
USE	AREA (AC)	PERCENTAGE OF TOTAL
IMPERVIOUS AREAS:		
PAVEMENT / SIDEWALK	0.80	58.0%
BUILDING / OVERHANG	0.38	27.5%
PERVIOUS AREAS:		
LANDSCAPE/OPEN SPACE	0.20	14.5%
TOTAL:	1.38 (AC)	100%

ZONING REQUIREMENTS SUMMARY TABLE		
CURRENT PROJECT ZONING	PUBLIC SERVICE DISTRICT PER ORDINANCE 2020-14522 W/ ADDITIONAL STANDARDS PER CHAPTER 50 AND 58 OF THE CODE OF ORDINANCES	
ADJACENT ZONING	NORTH	1ST AVENUE SOUTH RIGHT-OF-WAY
	SOUTH	D-DOWNTOWN
	EAST	N/A ACCESS EASEMENT
	WEST	D-DOWNTOWN
PRINCIPAL STRUCTURE SETBACKS		
CATEGORY	REQUIRED	PROVIDED
NORTH YARD SETBACK	10'	39.83'
WEST YARD SETBACK	0'	1.33'
SOUTH YARD SETBACK	0'	10'
EAST YARD SETBACK	10'	17.5'
MINIMIM AND MAXIMUM SQUARE FOOTAGE CALCULATION		
TOTAL AUTHORIZED MINIMUM SF	TOTAL AUTHORIZED MAXIMUM SF	PROVIDED SF
1,000 SF (PRINCIPAL STRUCTURE)	NONE	N/A
BUILDING HEIGHT FOR STRUCTURES		
STRUCTURE	ALLOWABLE (MAX)	PROPOSED
PRINCIPAL	55.5' FROM FEMA ELEVATION	ZONED BUILDING HEIGHT VARIES, REFERENCE ARCH. PLANS AND ELEVATIONS
ACCESSORY	42 FEET	N/A



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Revision	By	Appd	YYYY.MM.DD

Issued	By	Appd	YYYY.MM.DD

Permit/Seal

PRELIMINARY NOT FOR CONSTRUCTION

Not for permits, pricing or other official purposes. This document has not been completed or checked and is for general information or comment only.

Client/Project
BSSW ARCHITECTS, INC.
949 CENTRAL AVE, NAPLES FL, 34102

GULFSHORE PLAYHOUSE GARAGE

9220 BONITA BEACH RD, NAPLES FL

Project No.: 215617573
File Name: 4_215617573_01C-CS101

Scale: 1" = 20'

D.L.P.	J.B.B.	C.E.B.	OCT.,2022
Dwn.	Dsgn.	Chkd.	YYYY.MM.DD

Title
ZONING DATA SHEET AND SITE PLAN

Revision: Sheet: of

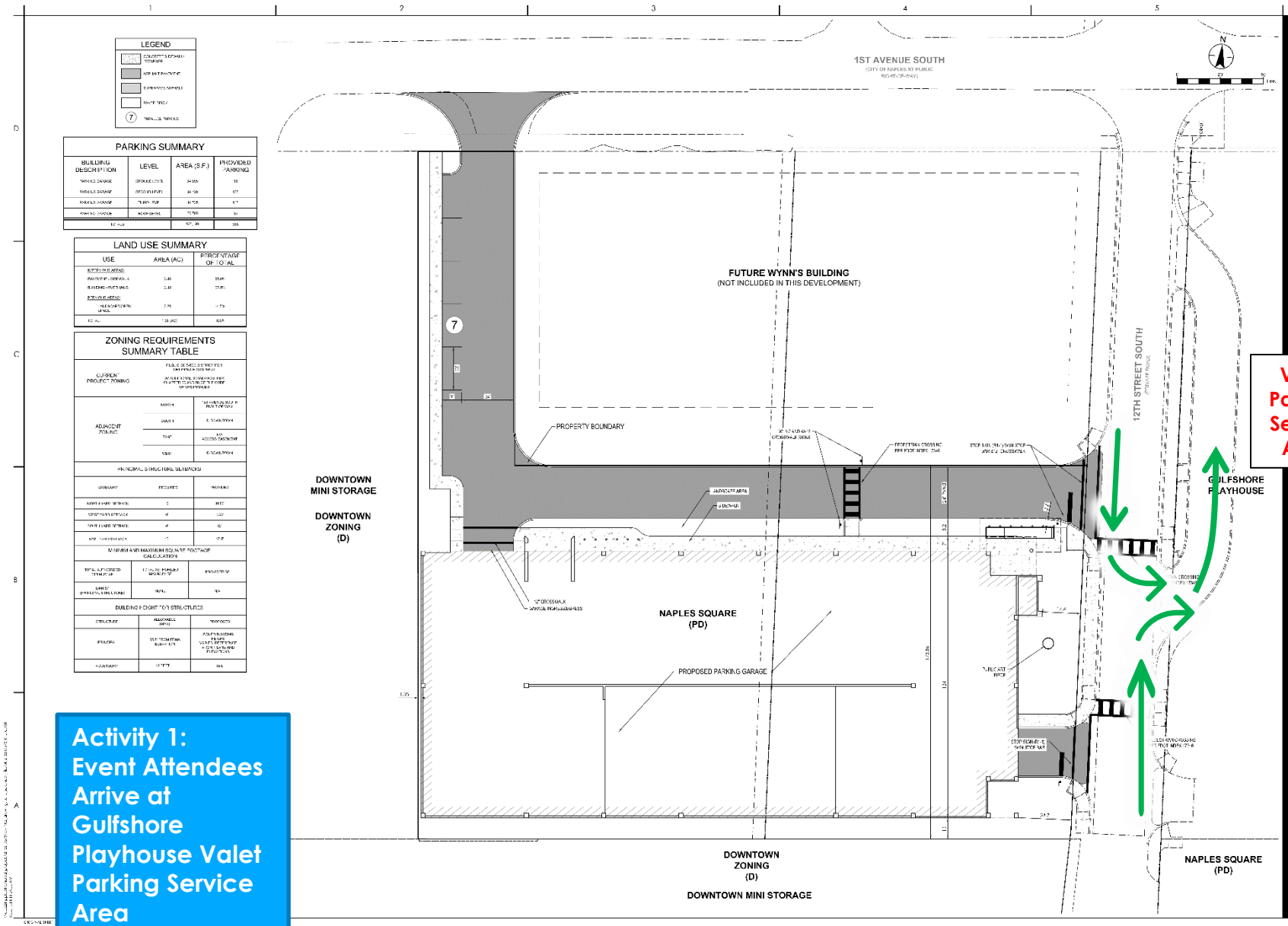
Drawing No.
CS101

ORIGINAL SHEET - ANSI D

APPENDIX B

Valet Parking Operations Plan

Naples Parking Garage - Gulfshore Playhouse Valet Parking Plan



Activity 1: Event Attendees Arrive at Gulfshore Playhouse Valet Parking Service Area

Stantec

PRELIMINARY NOT FOR CONSTRUCTION

Client/Project
BSW ARCHITECTS, INC.
949 CENTRAL AVE, NAPLES FL 34102
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Project No.: 215617573
Scale: 1" = 20'

Title
ZONING DATA SHEET AND SITE PLAN

Revision: Sheet: of
Drawing No.
CS101

Exhibit 1

Naples Parking Garage - Gulfshore Playhouse Valet Parking Plan

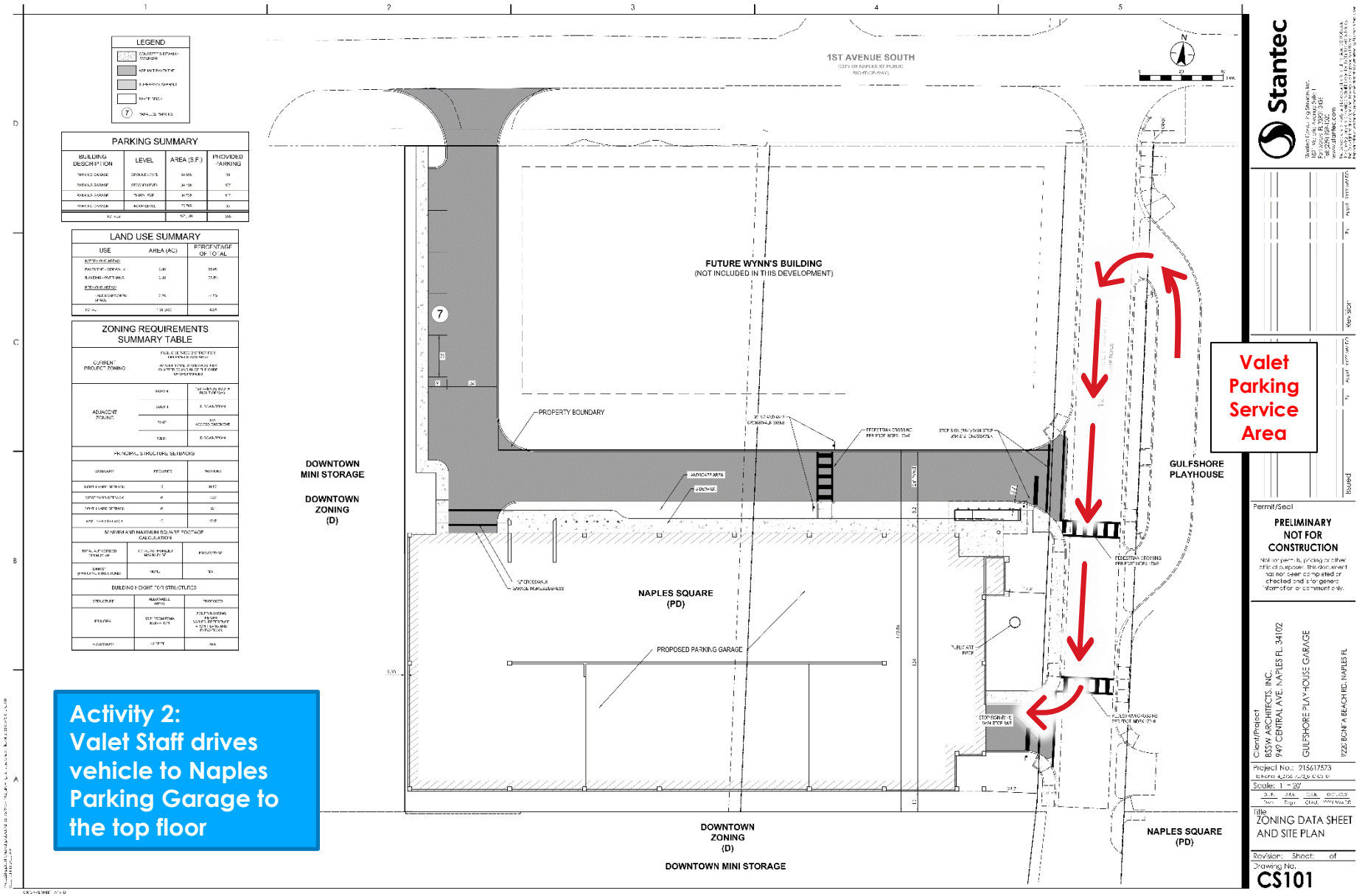


Exhibit 2

Naples Parking Garage - Gulfshore Playhouse Valet Parking Plan

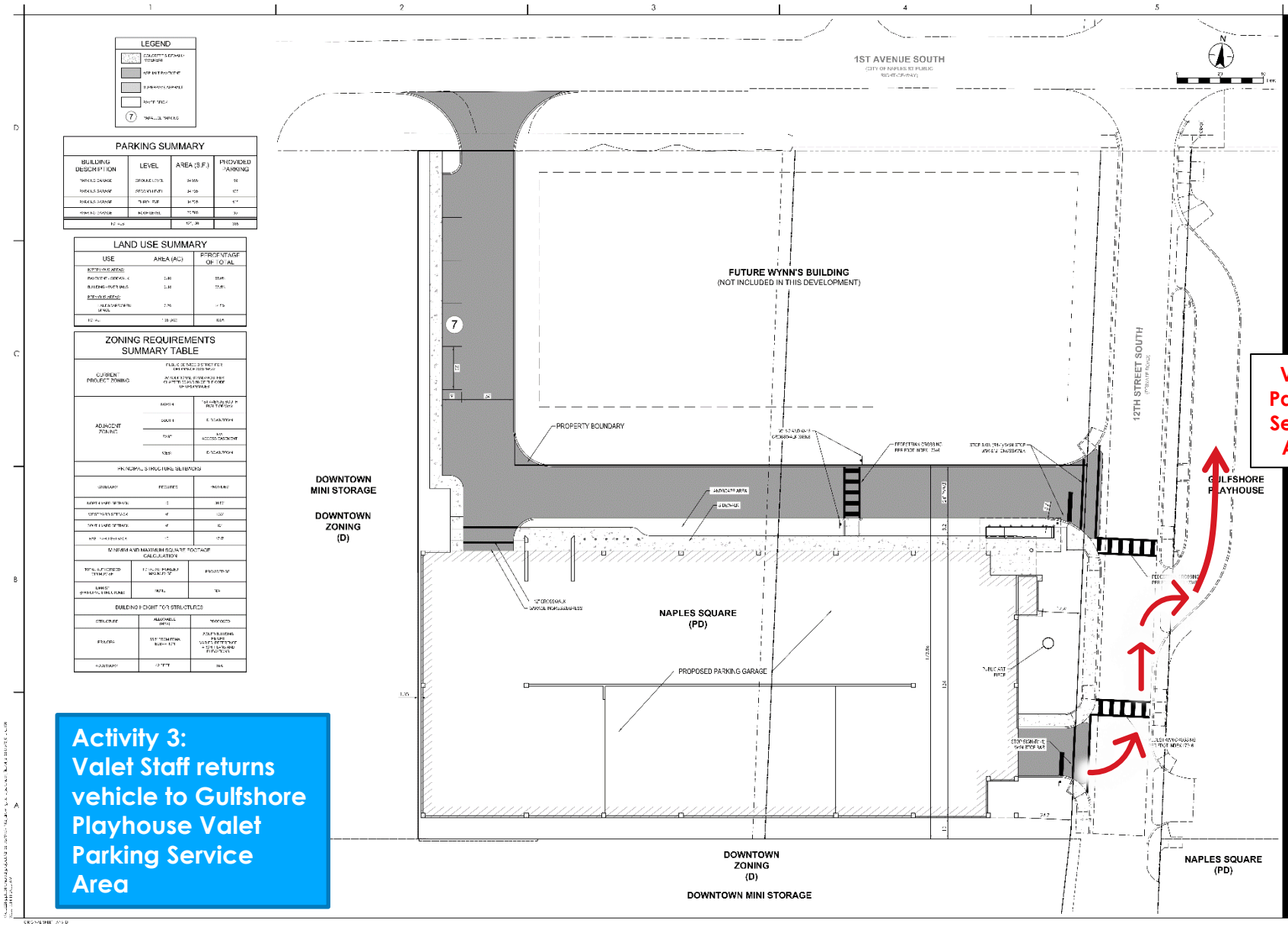
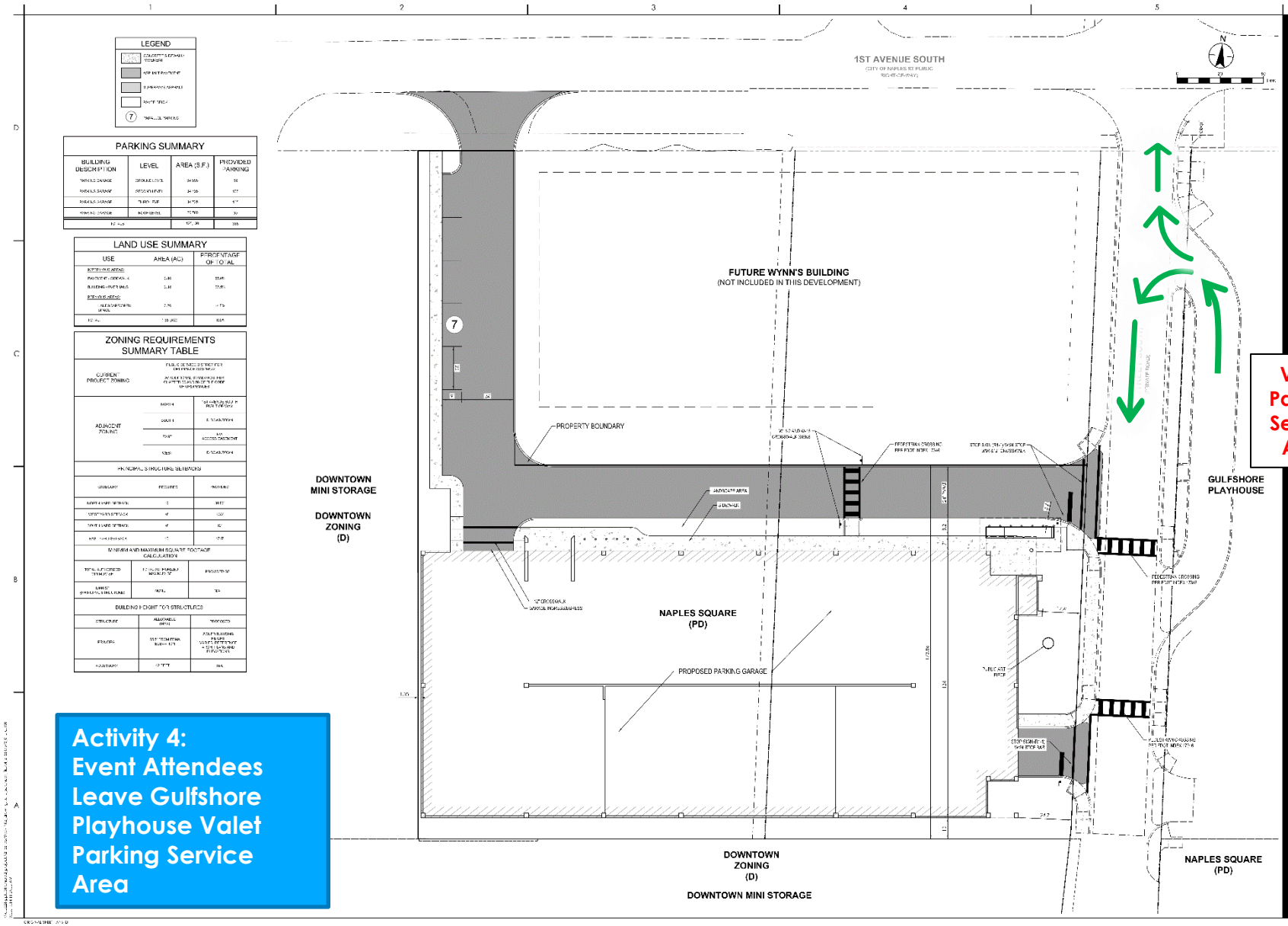


Exhibit 3

Naples Parking Garage - Gulfshore Playhouse Valet Parking Plan



Stantec

Permit/Seal

PRELIMINARY NOT FOR CONSTRUCTION

Client/Project
BSW ARCHITECTS, INC.
949 CENTRAL AVE, NAPLES FL 34102
GULFSHORE PLAYHOUSE GARAGE
7920 BONITA BEACH RD, NAPLES FL

Project No.: 215617573

Scale: 1" = 20'

Title
ZONING DATA SHEET AND SITE PLAN

Revision: Sheet: of

Drawing No.
CS101

Exhibit 4

Naples Parking Garage - Gulfshore Playhouse Valet Parking Plan

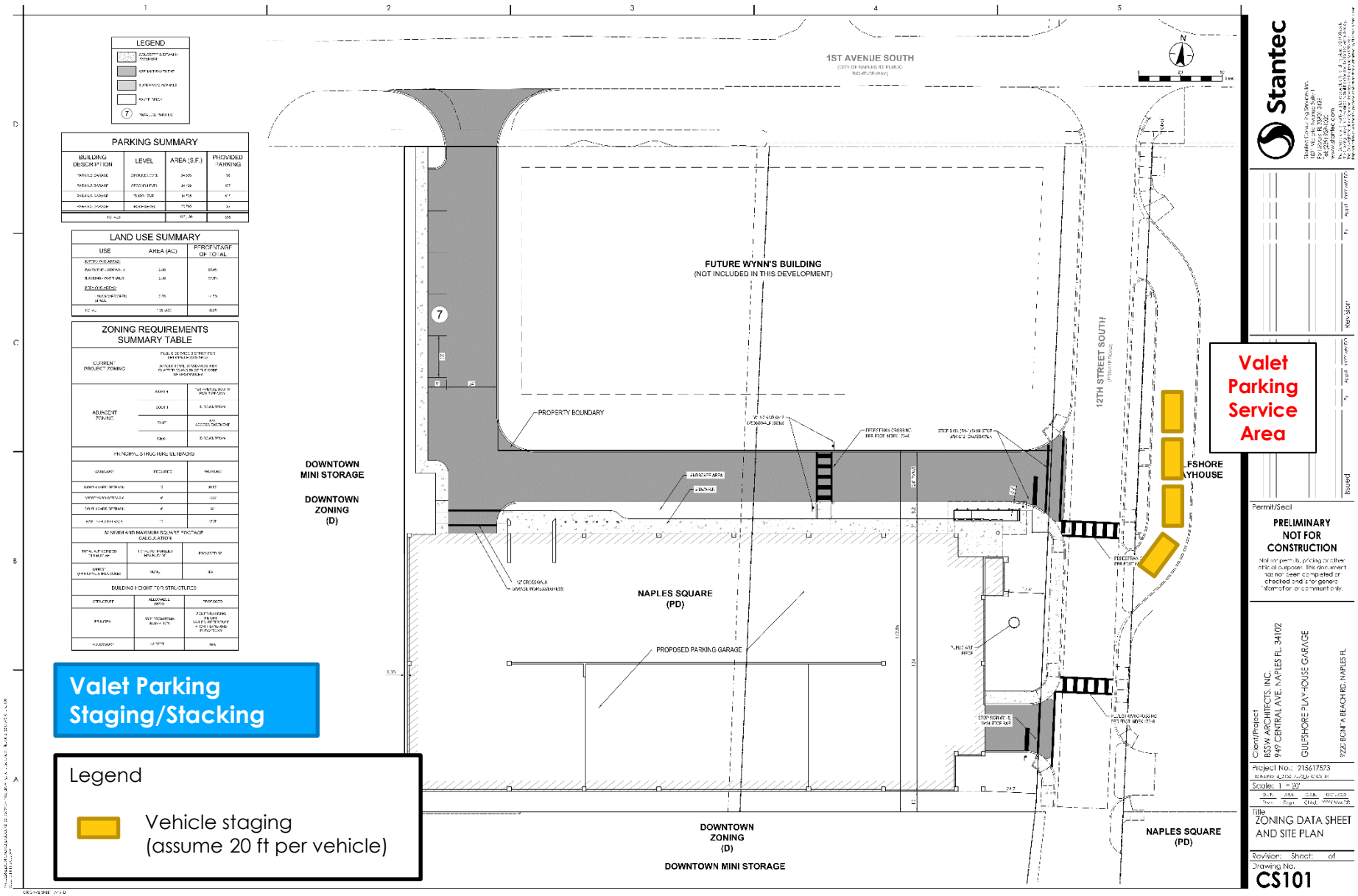


Exhibit 5

APPENDIX C

Naples Square Planning Development Level of Services (LOS) Build-Out Analysis

Naples Square Planned Development

Level of Service (LOS) Build-Out Analysis

AUGUST 2021

Submitted to:
Gulfshore Playhouse

Submitted by:
Stantec Consulting Services, Inc.

I hereby certify that I am a registered Professional Engineer in the State of Florida practicing with Stantec Consulting Services Inc. ("Stantec"), an organization authorized to operate as an engineering business by the State of Florida Department of Business and Professional Regulation, Florida Board of Professional Engineers, and that I have prepared or approved the evaluation, findings, opinions, conclusions, or technical advice for the

Project: Gulfshore Playhouse

Location: City of Naples, Florida

Prepared for: Gulfshore Playhouse

I hereby acknowledge that the procedures and references used to develop the results contained in these computations are standard to the professional practice of transportation engineering as applied through professional judgement and experience.

Christopher Benitez, Professional Engineer, State of Florida, License No. 74035

This document has been digitally signed and sealed by Christopher Benitez, PE on 8-20-2021

Printed copies of this document are not considered signed and seal and the signature must be verified on any electronic documents.

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APPENDICES

1. INTRODUCTION

The purpose of this document is to provide a traffic Level of Services (LOS) Build-Out Analysis for the Naples Square Planned Development. The analysis is being conducted as part of the Gulfshore Playhouse Administrative Site Plan (ASP) application petition 20-SP16, since the Gulfshore Playhouse project is within the Naples Square Planned Development. The ultimate intent of the analysis is to address the City of Naples transportation-related comments received on July 21, 2021, from the Gulfshore Playhouse ASP application review.

1.1. METHODOLOGY

The methodology of analysis in this document includes a LOS Build-out analysis that considers the full-build out of the Naples Square Planned Development and background traffic. The highest traffic volumes in the area are during the PM peak hour so this will be the study time period. The future year of analysis is 2027 which is 5 years after the anticipated opening year of the Gulfshore Playhouse project (year 2022). A growth rate will be calculated and applied to estimate the future background traffic. The Naples Square Planned Development build-out information will be based on information provided by the City including the Gulfshore Playhouse TIS Supplement dated May 2021. An aggregate of the future traffic volumes will include background growth and the Naples Square Planned Development trips, and then evaluated based on the maximum service volumes of the particular roadway. Analyzed roadways are within the Naples Square Planned Development area that includes 1st Avenue S, 3rd Avenue S, 12th Street S, and Goodlette Frank Road. Maximum service volumes for 3rd Avenue S are based on the previously approved Traffic Impact Studies (TIS) in the Naples Square Planned Development, which is consistent with the City's adopted Comprehensive Plan LOS guidance. Since 1st Avenue S and 12th Street S are local and two-lanes which is similar to 3rd Avenue S, those roads will use the same maximum service volumes. Goodlette Frank Road, which is a county roadway, will be based on the Florida Department of Transportation (FDOT) 2020 Quality/Level of Service Handbook.

2. LEVEL OF SERVICE (LOS) BUILD-OUT ANALYSIS

2.1. CITY OF NAPLES LEVEL OF SERVICE (LOS) GOALS

The LOS goals are contained in the Transportation Element Policy 1-3 of the City of Naples Comprehensive Plan, enacted on January 20, 2021. The plan stipulates that the LOS is based on the peak hour, peak seasons volume. The plan also describes this as the 100th highest hourly volume. Based on this plan, the adopted LOS goal for all of the study roadway segments is LOS C, with the exception of Goodlette Frank Road which is LOS E since it is a Collier County maintained roadway.

2.2. EXISTING TRAFFIC DATA

Table 1 provides the traffic data will be utilized for each of the roadway segments to be analyzed:

Table 1 – Traffic Data

Roadway Segments	Source	Adjustments to estimate PM peak hour, peak season
1st Avenue S between 12th Street and Goodlette Frank Road	24-hour bi-directional tube counts from the Gulfshore Playhouse TIS Supplement	Included in Gulfshore Playhouse TIS Supplement

Table 1 – Traffic Data		
Roadway Segments	**Source**	**Adjustments to estimate PM peak hour, peak season**
3rd Avenue S between 9th Street S and 10th Street S	City of Naples tube counts starting on May 10, 2021 (included in **Appendix A**)	-Axle correction factor of 0.99 (FDOT Weekly Axle Factor Report in **Appendix A**) -Peak Season Conversion Factor of 1.12 (FDOT Peak Season Factor Category Report in **Appendix A**) -Standard K Factor of 0.9% (included in **Appendix A**)
Goodlette Frank Road between 1st Avenue S and 3rd Avenue S	FDOT Traffic Count Station No.: 034569 (included in **Appendix A**)	- 100th Highest Hourly Volume K factor of 10.79% applied to obtain peak hour, peak season volumes (included in **Appendix A**)
12th Street S between 1st Avenue S and 3rd Avenue S	This is not an existing link, so no traffic data is available	N/A

2.3. EXISTING TRAFFIC VOLUMES

Table 2 includes the existing PM peak hour, peak season traffic volumes and year of the traffic count. The year is an important consideration for the background traffic. The calculations to estimate the volumes are included in **Appendix B.**

Table 2 – Existing PM Peak Hour, Peak Season Traffic Volumes		
Roadway Segments	**PM Peak Hour, Peak Season Volume**	**Year of Data**
1st Avenue S between 12th Street and Goodlette Frank Road	101	2020
3rd Avenue S between 9th Street S and 10th Street S	258	2021
Goodlette Frank Road between 1st Avenue S and 3rd Avenue S	2751	2020

2.4. FUTURE BACKGROUND TRAFFIC

Growth Rate Analysis

A 1% growth rate was selected based on a comparison of the historical traffic data and population and employment projections. The historical traffic trend analysis and population and employment projections are included in **Appendix C**.

The historical growth was computed using the FDOT Trend Analysis tool and using the historical traffic data from FDOT Traffic Count Station No.: 034569 which is located along Goodlette Frank Road south of 3rd Avenue S. Applying the last 5 years of traffic counts at this location, the results show negative growth in all three types of trend analysis: Straight line/linear with -3%, Exponential with -3%, and Decaying exponential with -1%.

The future potential growth was determined based on population and employment projections from Collier County. The annual growth for the population is projected at 1.5% and for the employment it's projected as 2.1%. The population data was obtained from the Collier County Permanent Population Estimates and Projections from 2018. The employment data was taken from the 2016 Collier County Economic, Demographic, & Community Profile.

Background Traffic Volumes

Table 3 presents the future background traffic volumes for the year 2027 which were calculated by applying a 1% growth rate to the PM peak hour, peak season volumes. The background traffic calculations are included in **Appendix C.**

Table 3 – Future Background Traffic Volumes	
Roadway Segments	**Future Background Traffic, PM Peak Hour, Peak Season for the Year 2027**
1st Avenue S between 12th Street and Goodlette Frank Road	108
3rd Avenue S between 9th Street S and 10th Street S	274
Goodlette Frank Road between 1st Avenue S and 3rd Avenue S	2949

2.5. NAPLES SQUARE PLANNED DEVELOPMENT TRIPS

Developments Considered

The vacant properties in the Naples Square Planned Development area were considered for the future traffic volumes. **Figure 1** presents the Naples Square Planned Developments sites that are vacant.

Figure 1 – Naples Planned Development Area – Vacant Sites

The following sites were considered from **Figure 1** for the future trip generation and distribution of the Naples Square Planned Development:

- Gulfshore Playhouse (subject project)

- Naples Square South
- Naples Square North
- 1080 1st Ave S
- Wynn Site
- Naples Square Residential

It should be noted that the future parking garage was not included in the trip generation since it does not generate trips.

Trip Generation and Distribution

The PM peak hour trip generation and distribution were determined using the traffic impact studies provided by the City of Naples as well as the Gulfshore Playhouse TIS Supplement. The trip generation was recalculated for each of the sites except the Gulfshore Playhouse and Naples Square North since they were already included in the Gulfshore Playhouse TIS Supplement. A few of the sites have not been approved for development so assumptions were made based on the most recent development program provided by the City. These include 1080 1st Ave S and the Wynn site.

Trip generation calculations and distribution maps are included in **Appendix D**.

Future PM Peak Hour Trips from the Naples Square Planned Development by Roadway Segment

PM peak hour trips were calculated and distributed by roadway segment for each future development in the Naples Square Planned Development. The trips were then aggregated by roadway segment. **Table 4** lists each roadway segment and the total PM Peak hour trips that are projected to be added from the future developments in the Naples Square Planned Development (i.e., Gulfshore Playhouse and Naples Square South). The roadway segments were subdivided for a more detailed analysis. The aggregate trips are also presented in **Figure 2**. The details of the trip distribution are provided in **Appendix D**.

Table 4 – Future PM Peak Hour Trips from the Naples Square Planned Development by Roadway Segment

Roadway Segments	Future PM Peak Hour Trips from the Naples Square Planned Development
1st Avenue S between 12th Street and Goodlette Frank Road	37
1st Avenue S between 10th Street S and 12th Street S	41
3rd Avenue S between 9th Street S and 10th Street S	81
3rd Avenue S between 10th Street S and 12th Street S	86
3rd Avenue S between 12th Street S and Goodlette Frank Road	171
Goodlette Frank Road north of 1st Avenue S	91
Goodlette Frank Road between 1st Avenue S and 3rd Avenue S	91
Goodlette Frank Road south of 3rd Avenue S	94
12th Street S between 1st Ave S and 3rd Ave S	73

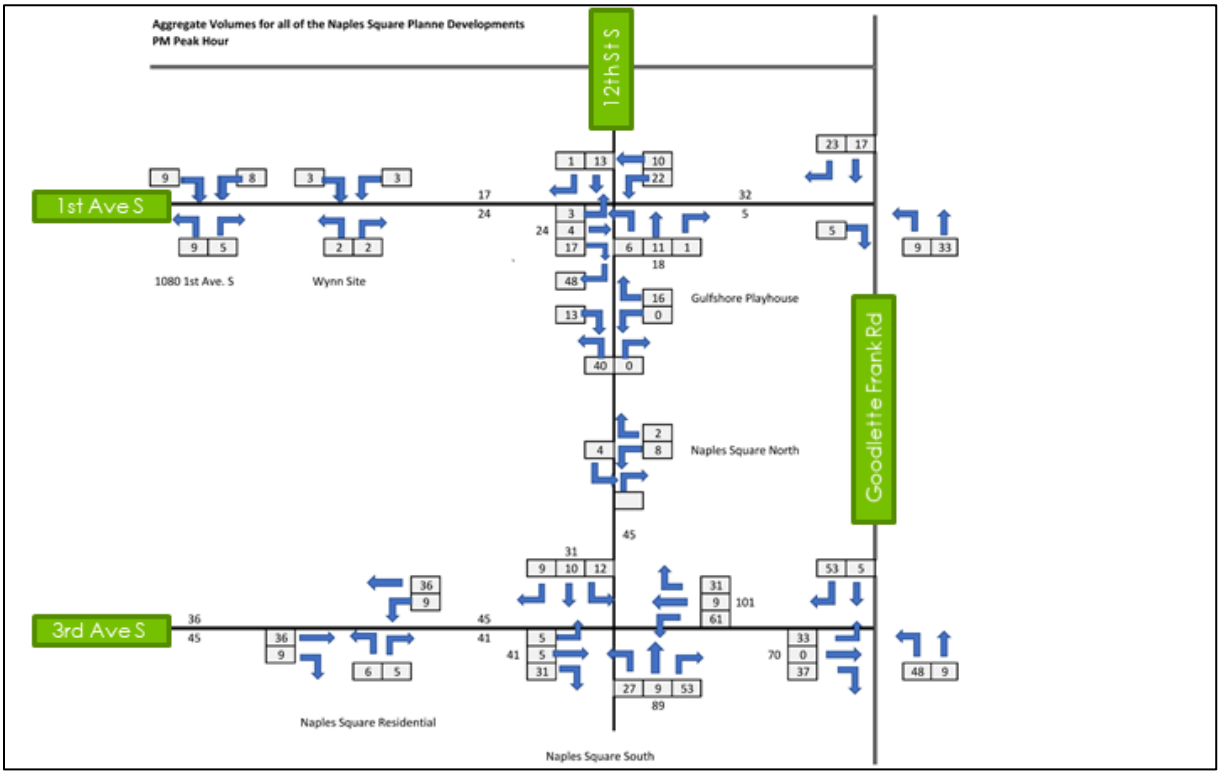


Figure 2 – Naples Square Planned Development Trips during the Peak Hour

2.6. LEVEL OF SERVICE (LOS) ANALYSIS

A LOS analysis was performed for the PM peak hour by comparing the projected future traffic volumes for the year 2027 with the maximum service volumes for each roadway in the study area. The projected future traffic volumes include future background traffic and the Naples Square Planned Development. The LOS standards are based on the City of Naples LOS goals detailed in the City's Comprehensive Plan. Maximum service volumes for 3rd Avenue S are based on the previously approved Traffic Impact Studies (TIS) in the Naples Square Planned Development, which is consistent with the City's adopted Comprehensive Plan LOS guidance. Since 1st Avenue S and 12th Street S are local and two-lanes which is similar to 3rd Avenue S, those roads will use the same maximum service volumes. Goodlette Frank Road, which is a county roadway, will be based on the FDOT 2020 Quality/Level of Service Handbook, Peak Hour Two-Way Volumes for Urbanized Areas information sheet.

Based on the results of the LOS Build-out analysis, all roadway segments in the study area are projected to operate within at an acceptable LOS. Presented in **Table 5** are the summarized results. The details of the analysis are included in **Appendix E**. It should be noted that the traffic volumes along 12th Street S are based on the Naples Square Planned Development Trips since this will be a new roadway link in the near future.

Table 5 – LOS Build-Out Analysis Results Summary for the PM Peak Hour

Roadway Segments	Adopted LOS Goal	Maximum Peak Hour Service Volume (bi-directional)	Future PM Peak Hour, Peak Season Volumes in the Year 2027 (bi-directional)	Projected LOS in the Year 2027
1st Avenue S between 12th Street and Goodlette Frank Road	C	1,570	145	C
1st Avenue S between 10th Street S and 12th Street S	C	1,570	149	C
3rd Avenue S between 9th Street S and 10th Street S	C	1,570	355	C
3rd Avenue S between 10th Street S and 12th Street S	C	1,570	360	C
3rd Avenue S between 12th Street S and Goodlette Frank Road	C	1,570	445	C
Goodlette Frank Road north of 1st Avenue S	E	4,131	3,040	D
Goodlette Frank Road between 1st Avenue S and 3rd Avenue S	E	4,131	3,040	D
Goodlette Frank Road south of 3rd Avenue S	E	4,131	3,043	D
12th Street S between 1st Ave S and 3rd Ave S	C	1,570	73	C

Note: The future PM peak hour, peak season volumes include both the Naples Square Planned Development and the future background traffic

3. FINDINGS & CONCLUSIONS

The results show that the roadway network in the Naples Square Planned Development area is projected to operated at an acceptable LOS. Therefore, the Gulfshore Playhouse project is expected to generate trips in the area that can be served by the available capacity of the existing roadways, even in the future during a full Naples Square Planned Development build-out.

APPENDIX A – EXISTING TRAFFIC DATA

MetroCount Traffic Executive
Weekly Event Counts (Virtual Week)

VirtWeeklyEvent-166 -- English (ENU)

Datasets:

Site:	**[EE81P9KH] 3Rd Ave S between 9th & 10th Street (EB)**
Attribute:	[+51.477222 +0.000000]
Input A:	2 - East bound. - Lane= 1, Added to totals. (/2.000)
Input B:	0 - Unused or unknown. - Lane= 0, Excluded from totals.
Survey Duration:	10:50 Monday, May 03, 2021 => 11:18 Monday, May 10, 2021,
Zone:	
File:	EE81P9KH 0 2021-05-10 1119.EC1 (Plus)
Identifier:	EE81P9KH MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm:	Event Count (v5.02)
Data type:	Axle sensors - Separate (Count)

Profile:

Filter time:	**10:51 Monday, May 03, 2021 => 11:18 Monday, May 10, 2021 (7.01914)**
Separation:	GapX > 0 sec
Name:	Default Profile
Scheme:	Count events divided by setup divisor
Units:	Non metric (ft, mi, ft/s, mph, lb, ton)
In profile:	Events = 8250 / 8250 (100.00%)

Weekly Event Counts (Virtual Week)

VirtWeeklyEvent-166
Site: EE81P9KH.1.0E
Description: **3Rd Ave S between 9th & 10th Street (EB)**
Filter time: **10:51 Monday, May 03, 2021 => 11:18 Monday, May 10, 2021**
Scheme: Count events divided by setup divisor
Filter: GapX(>0) Lane(0-16)

	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Averages 1 - 5	Averages 1 - 7
Hour									
0000-0100	11.5	5.0	2.5	6.0	4.0	19.0	21.0	5.6	9.7
0100-0200	3.0	1.0	3.0	1.0	2.0	6.0	2.0	2.0	2.6
0200-0300	1.0	3.0	5.0	1.0	1.0	1.0	4.0	2.2	2.3
0300-0400	0.0	0.0	0.0	2.5	1.0	0.0	0.0	0.6	0.4
0400-0500	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1
0500-0600	2.5	0.0	0.0	1.0	0.0	1.0	0.0	0.6	0.6
0600-0700	4.0	1.0	3.0	5.0	3.0	1.0	2.5	3.2	2.7
0700-0800	6.0	12.0	9.0	12.0	15.0	4.5	5.0	10.8	9.0
0800-0900	37.0	29.5	30.5	32.5	22.0	15.0	12.5	30.0	25.3
0900-1000	**61.5**	69.5	69.0	71.5	**78.5**	50.0	29.5	**69.6**	61.0
1000-1100	34.3	70.5	**85.5**	58.5	69.0	54.0	43.0	58.3	55.9
1100-1200	31.8	**104.0**	78.0	**82.5**	74.0	**56.5**	**62.0**	66.8	**64.9**
1200-1300	71.0	96.5	92.0	104.5	88.5	60.0	45.0	90.2	79.4
1300-1400	94.0	96.5	99.5	81.5	87.0	84.5	59.5	91.4	85.7
1400-1500	89.0	93.0	81.0	96.0	119.0	**90.0**	47.0	95.6	87.9
1500-1600	118.0	110.0	**146.0**	117.0	129.5	82.5	56.5	124.0	108.3
1600-1700	**147.5**	**131.5**	118.0	**146.5**	**143.5**	74.0	**85.0**	**137.0**	**120.6**
1700-1800	106.0	113.0	93.0	104.5	79.0	76.0	80.0	99.0	93.0
1800-1900	104.0	105.0	91.0	122.5	93.0	68.0	46.0	103.0	89.9
1900-2000	45.5	56.5	51.5	46.0	63.5	49.5	44.0	52.2	50.6
2000-2100	65.5	64.5	56.5	55.0	76.0	79.0	60.5	63.2	65.0
2100-2200	53.5	51.0	53.0	54.0	79.0	89.5	64.5	58.0	63.3
2200-2300	33.0	47.0	40.0	61.0	75.5	61.0	39.0	51.2	50.9
2300-2400	14.0	23.0	20.0	29.5	43.5	50.0	16.0	25.8	27.9
Totals									
0700-1900	900.0	1031.0	992.5	1029.5	998.0	715.0	571.0	975.8	880.8
0600-2200	1068.5	1204.0	1156.5	1189.5	1219.5	934.0	742.5	1152.4	1062.3
0600-0000	1115.5	1274.0	1216.5	1280.0	1338.5	1045.0	797.5	1229.4	1141.0
0000-0000	1133.5	1284.0	1227.0	1291.5	1346.5	1072.0	824.5	1240.6	1156.8
AM Peak	0900	1100	1000	1100	0900	1100	1100		
	61.5	104.0	85.5	82.5	78.5	56.5	62.0		
PM Peak	1600	1600	1500	1600	1600	1400	1600		
	147.5	131.5	146.0	146.5	143.5	90.0	85.0		

* - No data.

MetroCount Traffic Executive
Weekly Event Counts (Virtual Week)

VirtWeeklyEvent-167 -- English (ENU)

Datasets:

Site:	**[EE7718AK] 3Rd Ave S between 9th & 10th Street (WB)**
Attribute:	[+51.477222 +0.000000]
Input A:	4 - West bound. - Lane= 1, Added to totals. (/2.000)
Input B:	0 - Unused or unknown. - Lane= 0, Excluded from totals.
Survey Duration:	10:48 Monday, May 03, 2021 => 11:19 Monday, May 10, 2021,
Zone:	
File:	EE7718AK 0 2021-05-10 1120.EC1 (Plus)
Identifier:	EE7718AK MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm:	Event Count (v5.02)
Data type:	Axle sensors - Separate (Count)

Profile:

Filter time:	**10:49 Monday, May 03, 2021 => 11:19 Monday, May 10, 2021 (7.02133)**
Separation:	GapX > 0 sec
Name:	Default Profile
Scheme:	Count events divided by setup divisor
Units:	Non metric (ft, mi, ft/s, mph, lb, ton)
In profile:	Events = 7040 / 7040 (100.00%)

Weekly Event Counts (Virtual Week)

VirtWeeklyEvent-167
Site: EE7718AK.1.0W
Description: **3Rd Ave S between 9th & 10th Street (WB)**
Filter time: **10:49 Monday, May 03, 2021 => 11:19 Monday, May 10, 2021**
Scheme: Count events divided by setup divisor
Filter: GapX(>0) Lane(0-16)

	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Averages 1 - 5	Averages 1 - 7
Hour									
0000-0100	0.0	3.0	0.0	1.0	4.5	0.0	4.0	1.6	1.7
0100-0200	0.0	0.0	0.0	0.0	5.0	0.0	0.0	1.0	0.7
0200-0300	0.0	4.0	0.0	1.0	0.0	0.0	0.0	1.0	0.7
0300-0400	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.2	0.1
0400-0500	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.2	0.1
0500-0600	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0600-0700	0.0	2.0	0.0	5.0	7.0	0.0	0.0	2.8	2.0
0700-0800	12.0	36.5	4.0	26.5	32.5	4.5	0.0	22.0	16.3
0800-0900	89.5	102.5	61.5	91.0	72.0	10.0	14.0	83.0	62.7
0900-1000	**130.5**	**158.5**	116.0	**133.0**	**125.5**	13.0	12.0	**132.4**	**98.1**
1000-1100	51.8	121.0	**120.0**	88.5	92.0	9.0	5.5	87.3	67.3
1100-1200	52.3	120.5	85.0	101.0	118.5	**25.5**	**19.5**	88.0	71.5
1200-1300	118.0	**114.0**	109.5	**144.0**	120.0	11.0	1.0	121.0	88.1
1300-1400	121.5	91.0	94.5	116.0	123.5	6.0	**31.5**	109.0	83.1
1400-1500	111.5	84.5	115.0	116.5	102.0	7.5	9.0	105.6	77.7
1500-1600	**144.0**	74.0	116.0	107.5	**150.0**	12.5	8.5	118.2	87.3
1600-1700	113.5	93.0	**137.5**	131.5	138.0	**54.0**	0.0	**122.4**	**95.1**
1700-1800	102.5	63.5	96.5	112.0	88.5	28.0	6.0	92.2	70.7
1800-1900	78.0	45.5	69.0	101.5	37.5	6.0	8.5	66.0	49.1
1900-2000	68.5	27.5	67.0	80.5	21.5	5.0	6.0	52.6	39.1
2000-2100	60.0	13.0	49.0	53.0	17.5	12.5	8.0	38.4	30.3
2100-2200	41.0	5.0	29.0	24.5	19.0	8.5	4.5	23.6	18.6
2200-2300	24.0	4.0	27.0	32.5	7.5	0.5	0.0	18.8	13.4
2300-2400	9.0	1.0	18.0	17.5	0.0	2.5	0.0	9.0	6.7
Totals									
0700-1900	1125.0	1104.5	1124.5	1269.0	1200.0	187.0	115.5	1147.1	867.2
0600-2200	1294.5	1152.0	1269.5	1432.0	1265.0	213.0	134.0	1264.5	957.2
0600-0000	1327.5	1157.0	1314.5	1482.0	1272.5	216.0	134.0	1292.3	977.3
0000-0000	1327.5	1164.0	1314.5	1485.5	1283.0	216.0	138.0	1296.3	980.7
AM Peak	0900	0900	1000	0900	0900	1100	1100		
	130.5	158.5	120.0	133.0	125.5	25.5	19.5		
PM Peak	1500	1200	1600	1200	1500	1600	1300		
	144.0	114.0	137.5	144.0	150.0	54.0	31.5		

* - No data.

2020 WEEKLY AXLE FACTOR CATEGORY REPORT - REPORT TYPE: ALL

COUNTY: 03 - COLLIER

WEEK	DATES	0304 US41,LEE C/L-CR896	0305 SR84,SANTABARB-SR951	0306 US41,CR896-SR951	0307 US41,SR951-SR29
1	01/01/2020 - 01/04/2020	0.98	0.97	0.99	0.95
2	01/05/2020 - 01/11/2020	0.98	0.97	0.99	0.96
3	01/12/2020 - 01/18/2020	0.98	0.97	0.99	0.96
4	01/19/2020 - 01/25/2020	0.98	0.97	0.99	0.96
5	01/26/2020 - 02/01/2020	0.98	0.97	0.99	0.96
6	02/02/2020 - 02/08/2020	0.98	0.97	0.99	0.96
7	02/09/2020 - 02/15/2020	0.98	0.97	0.99	0.96
8	02/16/2020 - 02/22/2020	0.98	0.97	0.99	0.96
9	02/23/2020 - 02/29/2020	0.98	0.97	0.99	0.96
10	03/01/2020 - 03/07/2020	0.98	0.97	0.99	0.95
11	03/08/2020 - 03/14/2020	0.98	0.97	0.99	0.95
12	03/15/2020 - 03/21/2020	0.98	0.97	0.99	0.95
13	03/22/2020 - 03/28/2020	0.98	0.97	0.99	0.95
14	03/29/2020 - 04/04/2020	0.98	0.97	0.99	0.94
15	04/05/2020 - 04/11/2020	0.98	0.97	0.99	0.94
16	04/12/2020 - 04/18/2020	0.98	0.97	0.99	0.93
17	04/19/2020 - 04/25/2020	0.98	0.97	0.99	0.94
18	04/26/2020 - 05/02/2020	0.98	0.97	0.99	0.94
19	05/03/2020 - 05/09/2020	0.98	0.97	0.99	0.95
20	05/10/2020 - 05/16/2020	0.98	0.97	0.99	0.95
21	05/17/2020 - 05/23/2020	0.98	0.97	0.99	0.95
22	05/24/2020 - 05/30/2020	0.98	0.97	0.99	0.95
23	05/31/2020 - 06/06/2020	0.98	0.97	0.99	0.95
24	06/07/2020 - 06/13/2020	0.98	0.97	0.99	0.95
25	06/14/2020 - 06/20/2020	0.98	0.97	0.99	0.95
26	06/21/2020 - 06/27/2020	0.98	0.97	0.99	0.95
27	06/28/2020 - 07/04/2020	0.98	0.97	0.99	0.95
28	07/05/2020 - 07/11/2020	0.98	0.97	0.99	0.95
29	07/12/2020 - 07/18/2020	0.98	0.97	0.99	0.95
30	07/19/2020 - 07/25/2020	0.98	0.97	0.99	0.95
31	07/26/2020 - 08/01/2020	0.98	0.97	0.99	0.95
32	08/02/2020 - 08/08/2020	0.98	0.97	0.99	0.95
33	08/09/2020 - 08/15/2020	0.98	0.97	0.99	0.95
34	08/16/2020 - 08/22/2020	0.98	0.97	0.99	0.95
35	08/23/2020 - 08/29/2020	0.98	0.97	0.99	0.95
36	08/30/2020 - 09/05/2020	0.98	0.97	0.99	0.95
37	09/06/2020 - 09/12/2020	0.98	0.97	0.99	0.95
38	09/13/2020 - 09/19/2020	0.98	0.97	0.99	0.95
39	09/20/2020 - 09/26/2020	0.98	0.97	0.99	0.95
40	09/27/2020 - 10/03/2020	0.98	0.97	0.99	0.95
41	10/04/2020 - 10/10/2020	0.98	0.97	0.99	0.95
42	10/11/2020 - 10/17/2020	0.98	0.97	0.99	0.95
43	10/18/2020 - 10/24/2020	0.98	0.97	0.99	0.95
44	10/25/2020 - 10/31/2020	0.98	0.97	0.99	0.95
45	11/01/2020 - 11/07/2020	0.98	0.97	0.99	0.94
46	11/08/2020 - 11/14/2020	0.98	0.97	0.99	0.94
47	11/15/2020 - 11/21/2020	0.98	0.97	0.99	0.94
48	11/22/2020 - 11/28/2020	0.98	0.97	0.99	0.94
49	11/29/2020 - 12/05/2020	0.98	0.97	0.99	0.95
50	12/06/2020 - 12/12/2020	0.98	0.97	0.99	0.95
51	12/13/2020 - 12/19/2020	0.98	0.97	0.99	0.95
52	12/20/2020 - 12/26/2020	0.98	0.97	0.99	0.96
53	12/27/2020 - 12/31/2020	0.98	0.97	0.99	0.96

2019 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL
CATEGORY: 0300 COLLIER COUNTYWIDE

MOCF: 0.90

WEEK	DATES	SF	PSCF
1	01/01/2019 - 01/05/2019	0.96	1.07
2	01/06/2019 - 01/12/2019	0.96	1.07
3	01/13/2019 - 01/19/2019	0.96	1.07
* 4	01/20/2019 - 01/26/2019	0.94	1.04
* 5	01/27/2019 - 02/02/2019	0.92	1.02
* 6	02/03/2019 - 02/09/2019	0.90	1.00
* 7	02/10/2019 - 02/16/2019	0.88	0.98
* 8	02/17/2019 - 02/23/2019	0.88	0.98
* 9	02/24/2019 - 03/02/2019	0.88	0.98
*10	03/03/2019 - 03/09/2019	0.88	0.98
*11	03/10/2019 - 03/16/2019	0.87	0.97
*12	03/17/2019 - 03/23/2019	0.89	0.99
*13	03/24/2019 - 03/30/2019	0.90	1.00
*14	03/31/2019 - 04/06/2019	0.92	1.02
*15	04/07/2019 - 04/13/2019	0.93	1.03
*16	04/14/2019 - 04/20/2019	0.94	1.04
17	04/21/2019 - 04/27/2019	0.96	1.07
18	04/28/2019 - 05/04/2019	0.99	1.10
19	05/05/2019 - 05/11/2019	1.01	1.12
20	05/12/2019 - 05/18/2019	1.03	1.14
21	05/19/2019 - 05/25/2019	1.05	1.17
22	05/26/2019 - 06/01/2019	1.07	1.19
23	06/02/2019 - 06/08/2019	1.09	1.21
24	06/09/2019 - 06/15/2019	1.12	1.24
25	06/16/2019 - 06/22/2019	1.11	1.23
26	06/23/2019 - 06/29/2019	1.11	1.23
27	06/30/2019 - 07/06/2019	1.10	1.22
28	07/07/2019 - 07/13/2019	1.10	1.22
29	07/14/2019 - 07/20/2019	1.09	1.21
30	07/21/2019 - 07/27/2019	1.09	1.21
31	07/28/2019 - 08/03/2019	1.09	1.21
32	08/04/2019 - 08/10/2019	1.09	1.21
33	08/11/2019 - 08/17/2019	1.08	1.20
34	08/18/2019 - 08/24/2019	1.10	1.22
35	08/25/2019 - 08/31/2019	1.12	1.24
36	09/01/2019 - 09/07/2019	1.13	1.26
37	09/08/2019 - 09/14/2019	1.15	1.28
38	09/15/2019 - 09/21/2019	1.17	1.30
39	09/22/2019 - 09/28/2019	1.14	1.27
40	09/29/2019 - 10/05/2019	1.12	1.24
41	10/06/2019 - 10/12/2019	1.09	1.21
42	10/13/2019 - 10/19/2019	1.07	1.19
43	10/20/2019 - 10/26/2019	1.05	1.17
44	10/27/2019 - 11/02/2019	1.03	1.14
45	11/03/2019 - 11/09/2019	1.01	1.12
46	11/10/2019 - 11/16/2019	0.98	1.09
47	11/17/2019 - 11/23/2019	0.98	1.09
48	11/24/2019 - 11/30/2019	0.98	1.09
49	12/01/2019 - 12/07/2019	0.97	1.08
50	12/08/2019 - 12/14/2019	0.97	1.08
51	12/15/2019 - 12/21/2019	0.96	1.07
52	12/22/2019 - 12/28/2019	0.96	1.07
53	12/29/2019 - 12/31/2019	0.96	1.07

* PEAK SEASON

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2020 HISTORICAL AADT REPORT

COUNTY: 03 - COLLIER

SITE: 4569 - CR-851/GOODLETTE RD, N OF CENTRAL AVE CC 569

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2020	25500 F	N 13000	S 12500	9.00	56.50	2.70
2019	25500 C	N 13000	S 12500	9.00	56.40	2.70
2018	25500 C	N 13000	S 12500	9.00	56.50	3.60
2017	29000 T			9.00	56.80	4.50
2016	28000 S	N 14000	S 14000	9.00	57.40	2.60
2015	27000 F	N 13500	S 13500	9.00	57.20	2.60
2014	26000 C	N 13000	S 13000	9.00	56.50	2.60
2013	24500 S	N 12500	S 12000	9.00	56.00	2.10
2012	24500 F	N 12500	S 12000	9.00	56.20	2.10
2011	24500 C	N 12500	S 12000	9.00	56.50	2.10
2010	25500 S	N 13000	S 12500	10.32	56.59	2.60
2009	26500 F	N 13500	S 13000	11.01	56.34	2.60
2008	27500 C	N 14000	S 13500	11.12	56.68	2.60

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

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
200 HIGHEST HOUR REPORT - REPORT TYPE: ALL
YEAR 2020

COUNTY: 03 - COLLIER
SITE: 0094
DESCRIPTION: SR-90/US-41,.3 MI SE OF CR31/AIRPORT RD,COLLIER CO
LOCATION: 03010000 MILEPOST 14.45
AADT: 38469

VALID DATA
HOURS 8760
DAYS 365
WEEKS 53
MONTHS 12

POSITION	COUNTS					COLLECTION			"D"	"K"
	TOTAL COUNT	LOW DIR	LOW COUNT	HIGH DIR	HIGH COUNT	DAY	DATE	HOUR	FACTOR	FACTOR
45	4235	W	2004	E	2231	WED	02/05/20	16	52.68	11.01
50	4226	E	1962	W	2264	TUE	02/18/20	13	53.57	10.99
55	4214	W	1877	E	2337	THU	01/09/20	16	55.46	10.95
60	4210	W	1713	E	2497	THU	01/23/20	17	59.31	10.94
65	4197	W	1996	E	2201	FRI	02/21/20	15	52.44	10.91
70	4191	W	2003	E	2188	THU	02/27/20	15	52.21	10.89
75	4177	E	2010	W	2167	FRI	02/07/20	14	51.88	10.86
80	4174	E	2081	W	2093	TUE	01/21/20	13	50.14	10.85
85	4169	W	1658	E	2511	WED	02/05/20	18	60.23	10.84
90	4164	W	1862	E	2302	MON	03/02/20	16	55.28	10.82
95	4158	W	2028	E	2130	TUE	01/14/20	15	51.23	10.81
100	4152	W	1852	E	2300	FRI	01/24/20	16	55.39	10.79
105	4142	W	1802	E	2340	WED	03/04/20	17	56.49	10.77
110	4129	W	1683	E	2446	MON	02/10/20	17	59.24	10.73
115	4124	W	1950	E	2174	FRI	02/28/20	15	52.72	10.72
120	4116	W	1989	E	2127	THU	02/20/20	15	51.68	10.70
125	4111	W	1644	E	2467	TUE	01/28/20	17	60.01	10.69
130	4101	W	1907	E	2194	MON	02/24/20	15	53.50	10.66
135	4095	W	1727	E	2368	FRI	02/21/20	18	57.83	10.64
140	4084	W	1869	E	2215	WED	12/30/20	16	54.24	10.62
145	4074	W	1772	E	2302	WED	12/30/20	17	56.50	10.59
150	4068	E	1939	W	2129	THU	01/30/20	13	52.34	10.57
155	4063	W	1795	E	2268	THU	02/13/20	18	55.82	10.56
160	4057	W	1713	E	2344	THU	01/09/20	18	57.78	10.55
165	4055	W	1989	E	2066	MON	03/02/20	15	50.95	10.54
170	4051	E	1924	W	2127	MON	01/27/20	14	52.51	10.53
175	4047	W	1734	E	2313	WED	03/11/20	17	57.15	10.52
180	4040	E	1887	W	2153	WED	12/30/20	14	53.29	10.50
185	4035	E	1989	W	2046	FRI	02/14/20	13	50.71	10.49
190	4022	W	1922	E	2100	WED	01/08/20	15	52.21	10.46
195	4018	W	1947	E	2071	WED	03/04/20	15	51.54	10.44
200	4012	E	1920	W	2092	THU	02/06/20	13	52.14	10.43

DESIGN HOUR DATA

MEDIAN "D" = 55.0% (MEDIAN D FACTOR OF ALL 200 HIGHEST HOURS)
STANDARD "K" = 9.0%

APPENDIX B – EXISTING PM PEAK HOUR, PEAK SEASON VOLUMES

PM Peak Hour, Peak Season Volume Calculations (Bi-Directional)

Roadway Segment	Average Daily Traffic (ADT) Count	ACF (1)	PSFC (2)	PSWADT (3)	AADT (4)	Raw Peak Hour Volume	K%	PM Peak Hour Volume (bi-directional) (5), (6)	Year	Source
1st Avenue S between 12th Street and Goodlette Frank Road	1217		1.09	1330				101	2020	TIS Supplement, Figure 1
3rd Avenue S between 9th Street S and 10th Street S	2589	0.99	1.12	2870			9.00%	258	2021	City of Naples traffic count
Goodlette Frank Road between 1st Avenue S and 3rd Avenue S					25500		10.79%	2751	2020	FDOT Traffic Count Station No.: 034569
12th Street S between 1st Avenue S and 3rd Avenue S										New roadway link, so no existing traffic volumes

Note:

(1) ACF = Axle Correction Factor from FDOT

(2) PSCF = Peak Season Conversation Factor From FDOT

(3) PSWADT = Peak Season Weekday Average Daily Traffic

(4) AADT = Annual Average Daily Traffic

(5) For 3rd Avenue, ADT is the average of the Tuesday, Wednesday, and Thursday counts. Since the PSWADT already accounts for peak season conditions, a Standard K factor of 9% was applied to estimate the peak hour, peak season volume

(6) For Goodlette Frank Road, the AADT was converted to a peak hour, peak season volume by multiplying by the 100th Highest K factor from a nearby FDOT Continuous Count Station

APPENDIX C – FUTURE BACKGROUND TRAFFIC AND GROWTH RATE ANALYSIS

Future Background Traffic Volumes for Year 2027

Roadway Segment	PM Peak Hour, Peak Season Volume (bi-directional) (1)	Year	Growth Rate	Future Background Traffic Volumes (Year 2027)
1st Avenue S between 12th Street and Goodlette Frank Road	101	2020	1%	108
3rd Avenue S between 9th Street S and 10th Street S	258	2021	1%	274
Goodlette Frank Road between 1st Avenue S and 3rd Avenue S	2751	2020	1%	2949
12th Street S between 1st Avenue S and 3rd Avenue S				

Note:

(1) Based on existing traffic data and volume calculations

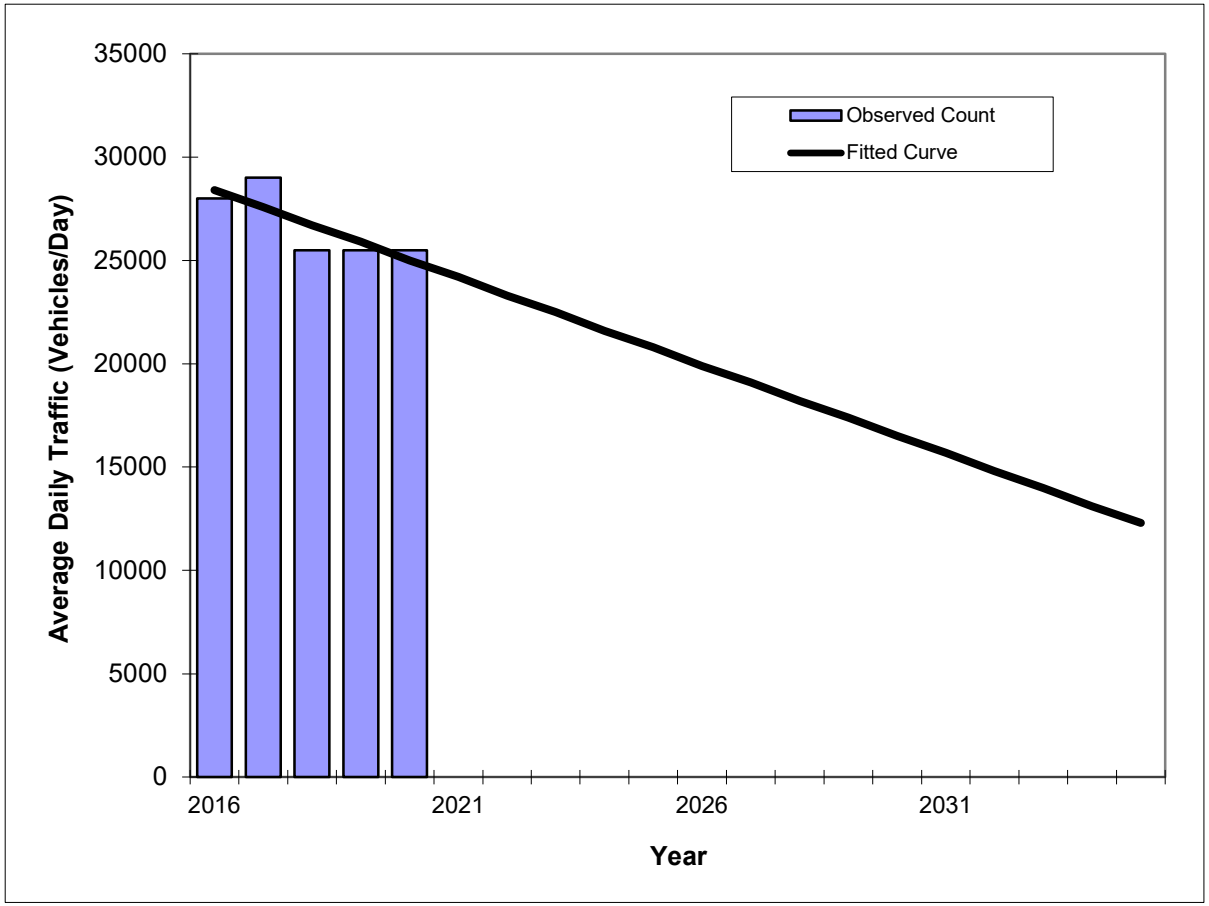
Historical Traffic Trend Analysis

Traffic Trends - V03.a

CR-851/GOODLETTE RD -- South of 1st Ave S

FIN#	4569
Location	1

County:	Collier (03)
Station #:	4569
Highway:	CR-851/GOODLETTE RD



Year	Traffic (ADT/AADT) Count*	Trend**
2016	28000	28400
2017	29000	27600
2018	25500	26700
2019	25500	25900
2020	25500	25000
2022 Opening Year Trend		
2022	N/A	23300
2025 Mid-Year Trend		
2025	N/A	20800
2027 Design Year Trend		
2027	N/A	19100
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	-850
Trend R-squared:	63.94%
Trend Annual Historic Growth Rate:	-2.99%
Trend Growth Rate (2020 to Design Year):	-3.37%
Printed:	5-Aug-21

Straight Line Growth Option

***Axle-Adjusted**

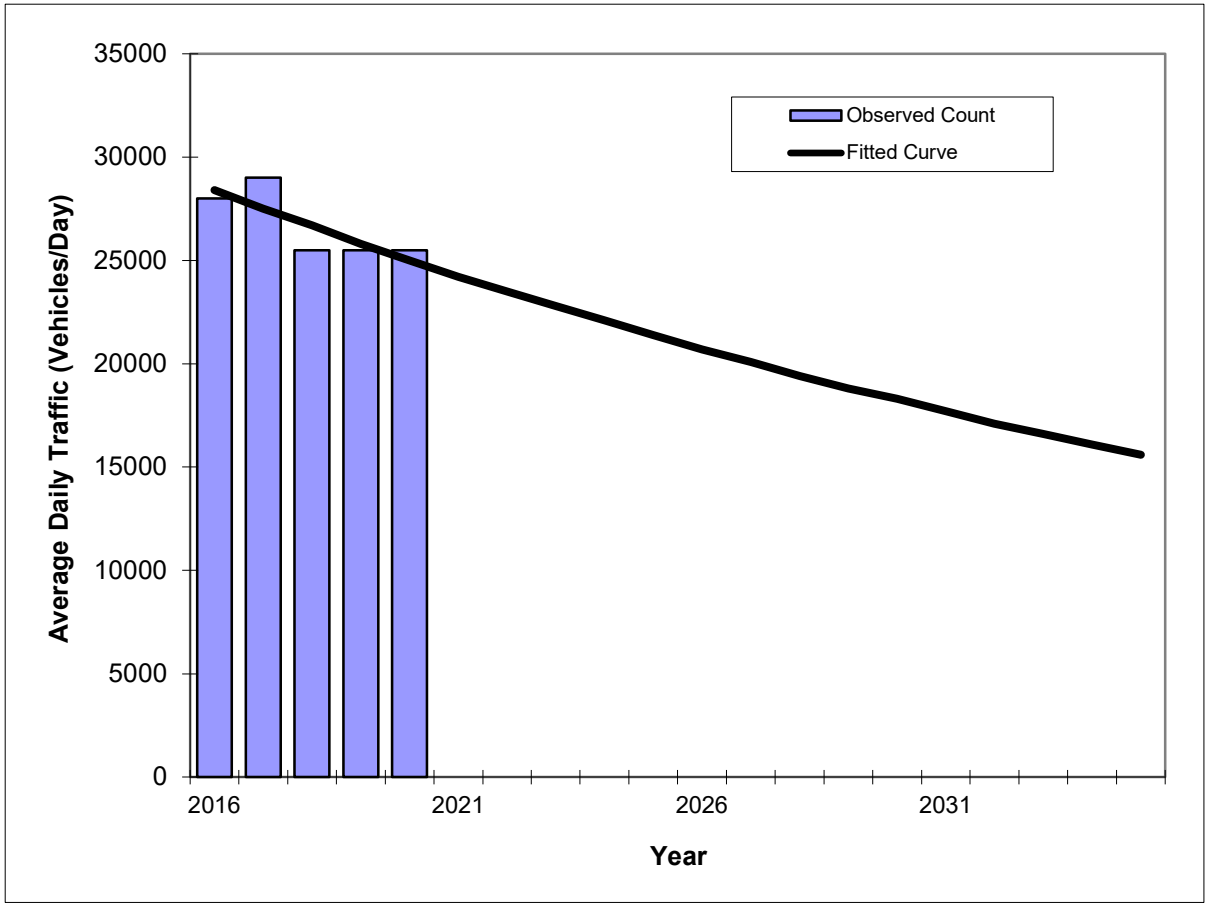
Historical Traffic Trend Analysis

Traffic Trends - V03.a

CR-851/GOODLETTE RD -- South of 1st Ave S

FIN#	4569
Location	1

County:	Collier (03)
Station #:	4569
Highway:	CR-851/GOODLETTE RD



Year	Traffic (ADT/AADT) Count*	Trend**
2016	28000	28400
2017	29000	27500
2018	25500	26700
2019	25500	25800
2020	25500	25000
2022 Opening Year Trend		
2022	N/A	23500
2025 Mid-Year Trend		
2025	N/A	21400
2027 Design Year Trend		
2027	N/A	20100
TRANPLAN Forecasts/Trends		

Trend R-squared:	64.62%
Compounded Annual Historic Growth Rate:	-3.14%
Compounded Growth Rate (2020 to Design Year):	-3.07%
Printed:	5-Aug-21

Exponential Growth Option

***Axle-Adjusted**

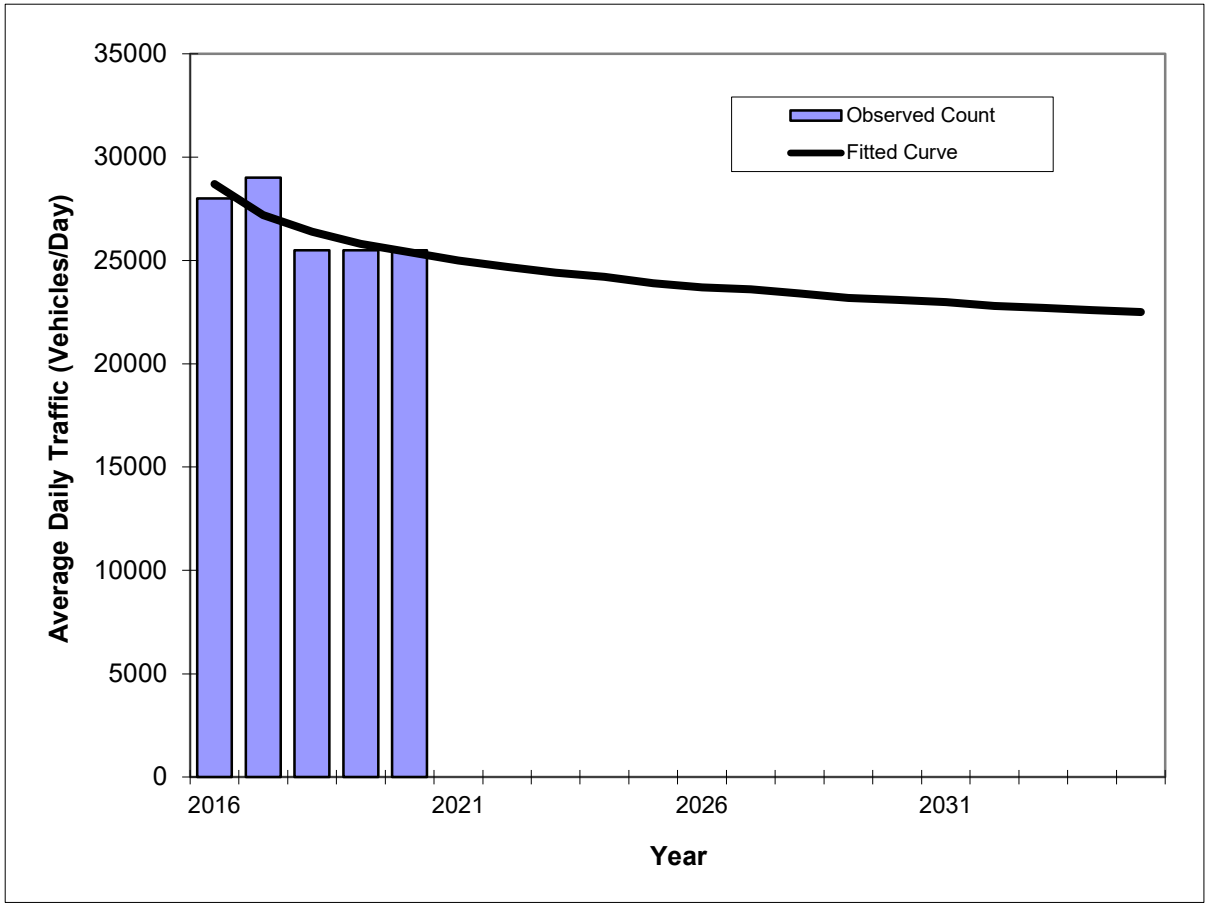
Historical Traffic Trend Analysis

Traffic Trends - V03.a

CR-851/GOODLETTE RD -- South of 1st Ave S

FIN#	4569
Location	1

County:	Collier (03)
Station #:	4569
Highway:	CR-851/GOODLETTE RD



Year	Traffic (ADT/AADT) Count*	Trend**
2016	28000	28700
2017	29000	27200
2018	25500	26400
2019	25500	25800
2020	25500	25400
2022 Opening Year Trend		
2022	N/A	24700
2025 Mid-Year Trend		
2025	N/A	23900
2027 Design Year Trend		
2027	N/A	23600
TRANPLAN Forecasts/Trends		

Trend R-squared:	60.34%
Compounded Annual Historic Growth Rate:	-3.01%
Compounded Growth Rate (2020 to Design Year):	-1.04%
Printed:	5-Aug-21

Decaying Exponential Growth Option

***Axle-Adjusted**

Population Growth Estimates

Topic	2017	2027	Change	Total Growth	Annual Growth Rate
Population (1)	20195	23480	3285	16.3%	1.5%

Note:

(1) Population data is obtained from the Collier County Permanent Population Estimates and Projections from 2018. The City of Naples was utilized.

Employment Growth Estimates

Topic	2015	2023	Change	Total Growth	Annual Growth Rate
Employment (1.)	153351	180483	27132	17.7%	2.1%

Note:

(1) Employment data is obtained from the 2016 Collier County Econmic, Demographic, & Community Profile

Population Growth

COLLIER COUNTY PERMANENT POPULATION ESTIMATES and PROJECTIONS **April 1st 2000 & 2010 - 2035** *By Planning Community and City*

Planning Community	estimates 2000	estimates 2010	estimates 2011	estimates 2012	estimates 2013	estimates 2014	estimates 2015	estimates 2016	estimates 2017	projections 2018	projections 2019	projections 2020	projections 2021	projections 2022	projections 2023	projections 2024	projections 2025	projections 2026	projections 2027	projections 2028	projections 2029	projections 2030	projections 2031	projections 2032	projections 2033	projections 2034	projections 2035
NN - North Naples	*47,657*	55,041	55,169	55,716	56,152	56,362	56,760	57,344	58,084	58,527	58,980	59,443	59,832	60,229	60,633	61,045	61,464	61,808	62,158	62,513	62,873	63,239	63,551	63,868	64,189	64,515	64,844
SN - South Naples	*21,610*	28,689	29,029	29,950	30,587	31,071	33,004	33,631	34,052	34,412	34,779	35,153	35,469	35,791	36,118	36,451	36,791	37,070	37,353	37,640	37,932	38,228	38,482	38,739	38,999	39,262	39,529
CN - Central Naples	*18,323*	18,845	18,867	18,967	19,022	19,096	19,195	19,310	19,535	19,600	19,666	19,734	19,791	19,849	19,908	19,969	20,030	20,081	20,132	20,184	20,236	20,290	20,336	20,382	20,429	20,477	20,525
EN - East Naples	*24,385*	22,320	22,323	22,358	22,382	22,399	22,682	22,954	23,197	23,432	23,673	23,918	24,125	24,336	24,551	24,769	24,992	25,174	25,360	25,548	25,740	25,934	26,100	26,268	26,438	26,611	26,786
GG - Golden Gate	*35,325*	44,925	45,000	45,283	45,418	45,490	45,506	45,539	45,575	45,646	45,718	45,792	45,855	45,918	45,983	46,049	46,116	46,171	46,227	46,284	46,342	46,400	46,450	46,501	46,553	46,605	46,658
UE - Urban Estates	*16,713*	38,658	38,830	39,484	40,084	40,876	42,313	43,804	45,134	46,282	47,456	48,655	49,664	50,692	51,739	52,805	53,891	54,783	55,688	56,607	57,540	58,488	59,298	60,119	60,951	61,793	62,647
RE - Rural Estates	*18,815*	34,739	34,780	34,941	35,089	35,193	35,481	36,025	37,348	39,091	40,872	42,691	44,223	45,783	47,372	48,990	50,638	51,991	53,366	54,761	56,177	57,614	58,844	60,090	61,352	62,631	63,927
M - Marco	*1,350*	1,219	1,222	1,224	1,227	1,299	1,340	1,612	1,938	2,108	2,281	2,458	2,607	2,758	2,913	3,070	3,230	3,362	3,495	3,631	3,769	3,908	4,028	4,149	4,272	4,396	4,522
RF - Royal Fakapalm	*7,811*	11,797	12,205	13,129	13,859	14,392	15,326	16,156	16,855	18,097	19,366	20,662	21,753	22,865	23,997	25,150	26,324	27,288	28,267	29,261	30,270	31,294	32,170	33,058	33,957	34,868	35,792
C - Corkscrew	*1,019*	4,550	5,375	7,369	8,239	8,989	10,369	11,486	12,675	13,919	15,190	16,488	17,582	18,695	19,829	20,983	22,159	23,125	24,106	25,101	26,112	27,138	28,015	28,904	29,805	30,718	31,643
I - Immokalee	*21,845*	24,154	24,453	24,685	24,805	24,832	24,905	25,003	25,163	25,383	25,608	25,838	26,031	26,228	26,429	26,633	26,841	27,012	27,186	27,362	27,541	27,723	27,878	28,035	28,195	28,356	28,520
BC - Big Cypress	*190*	233	233	237	239	240	241	241	242	243	244	245	246	247	248	249	250	251	252	252	253	254	255	255	256	257	258
Unincorporated SUM	*215,043*	285,170	287,485	293,343	297,103	300,237	307,120	313,104	319,796	326,738	333,831	341,077	347,178	353,391	359,719	366,163	372,725	378,116	383,588	389,144	394,783	400,509	405,405	410,367	415,395	420,489	425,651

Cities	estimates 2000	estimates 2010	estimates 2011	estimates 2012	estimates 2013	estimates 2014	estimates 2015	estimates 2016	estimates 2017	projections 2018	projections 2019	projections 2020	projections 2021	projections 2022	projections 2023	projections 2024	projections 2025	projections 2026	projections 2027	projections 2028	projections 2029	projections 2030	projections 2031	projections 2032	projections 2033	projections 2034	projections 2035
Everglades City	*479*	400	406	401	409	409	427	432	443	446	450	453	456	460	463	467	470	474	477	481	485	488	492	496	499	503	507
Marco Island	*14,879*	16,413	16,443	16,521	16,556	16,607	16,728	16,930	17,036	17,087	17,139	17,190	17,288	17,387	17,485	17,584	17,682	17,773	17,864	17,956	18,047	18,138	18,277	18,417	18,556	18,696	18,835
Naples	*20,976*	19,537	19,451	19,584	19,595	19,530	19,527	19,736	20,195	20,523	20,852	21,180	21,509	21,837	22,166	22,494	22,823	23,151	23,480	23,808	24,137	24,465	24,794	25,122	25,451	25,779	26,108
Incorporated SUM	*36,334*	36,350	36,300	36,506	36,560	36,546	36,682	37,098	37,674	38,057	38,440	38,823	39,254	39,684	40,114	40,545	40,975	41,398	41,822	42,245	42,668	43,091	43,563	44,035	44,506	44,978	45,449

COUNTYWIDE TOTAL	*251,377*	321,520	323,785	329,849	333,663	336,783	343,802	350,202	357,470	364,796	372,271	379,900	386,432	393,076	399,834	406,708	413,700	419,514	425,410	431,389	437,451	443,600	448,968	454,402	459,901	465,467	471,100

notes:

1) 2000 and 2010 Naples, Marco Island, Everglades City, Unincorporated County and County-wide totals are estimates from the U.S. Census Bureau, Census 2000 and Census 2010 Redistricting Data (Public Law 94-171).

2) 2000 and 2010 Planning Community estimates are based upon County Planning staff review of 2000 and 2010 Census maps and population data.

3) Marco Island projections were provided by the city's Planning staff in 2017, in 5-year increments. In-between years are projections prepared by County Planning staff.

4) Naples projections were prepared by County staff based upon 2030 projection provided by the city's Planning staff in 2004.

5) Everglades City projections were prepared by County Planning staff.

6) 2018 - 2035 County-wide totals are projections based upon BEBR Medium Range growth rates between 2017-2020, 2020-2025, 2025-2030, and 2030-2035, per BEBR Bulletin #180, January 2018.

7) Planning Community projections were prepared by County Planning staff using Certificate of Occupancy data & persons per dwelling unit ratios derived from 2000 Census.

8) Planning Community projections do not reflect projected buildout population figures, as prepared in 1994 and 2005.

9) Some of the Totals may not equal the sum of the individual figures due to rounding.

Prepared by Collier County Comprehensive Planning Section June 14, 2018.

The 2016 Collier County Economic, Demographic & Community Profile

Growth Management Department
Comprehensive Planning Section

Employment Projections

Projection of Jobs by Industry in Collier County, 2015 & 2023[33]

Title	2015	2023	Change	% Change
Total, All Industries	153,351	180,483	27,132	17.7
Agriculture, Forestry, Fishing and Hunting	4,248	4,068	-180	-4.2
Crop Production	3,407	3,300	-107	-3.1
Animal Production	36	35	-1	-2.8
Support Activities for Agriculture and Forestry	802	730	-72	-9.0
Mining	31	36	5	16.1
Construction	13,495	19,489	5,994	44.4
Construction of Buildings	2,849	3,903	1,054	37.0
Heavy and Civil Engineering Construction	1,093	1,381	288	26.3
Specialty Trade Contractors	9,553	14,205	4,652	48.7
Manufacturing	3,391	3,758	367	10.8
Durable Goods Manufacturing	2,909	3,280	371	12.8
Wood Product Manufacturing	61	85	24	39.3
Nonmetallic Mineral Product Manufacturing	317	441	124	39.1
Fabricated Metal Product Manufacturing	316	348	32	10.1
Machinery Manufacturing	206	223	17	8.3
Computer and Electronic Product Manufacturing	66	67	1	1.5
Electrical Equipment and Appliance Manufacturing	231	251	20	8.7
Transportation Equipment Manufacturing	326	340	14	4.3
Furniture and Related Product Manufacturing	163	165	2	1.2
Non-Durable Goods Manufacturing	482	478	-4	-0.8
Food Manufacturing	30	30	0	0.0
Textile Product Mills	97	89	-8	-8.2
Printing and Related Support Activities	153	142	-11	-7.2
Chemical Manufacturing	144	160	16	11.1
Plastics and Rubber Products Manufacturing	36	35	-1	-2.8

[33] Data Source: Florida Department of Economic Opportunity, Bureau of Labor Market Statistics.

APPENDIX D – NAPLES SQUARE PLANNED DEVELOPMENT TRIP GENERATION AND DISTRIBUTION

ITE Trip Generation Handbook 10th Ed.

	ITE Land Use (LU)	ITE LU#	Units	Unit of Measure	24-Hr Trips (2-Way)		Peak Hour Trips	Net New Trips	Entering Rate	Exiting Rate	Driveway Volume	
											Entering Trips	Exiting Trips
Naples Square	Multifamily Mid-Rise (3-10 Floors)	221	65	DUs	353	AM Pk Hr	22	22	26%	74%	6	16
						PM Pk Hr	29	29	61%	39%	18	11
	Shopping Center	820	7,300	Sq. Ft.	1,014	AM Pk Hr	155	155	62%	38%	96	59
						PM Pk Hr	78	78	48%	52%	37	41
	Shopping Center	820	9,400	Sq. Ft.	1,204	PM Pk Hr	94	94	48%	52%	45	49
	High-Turnover Sitdown	932	7,400	Sq. Ft.	830	PM Pk Hr	72	72	62%	38%	45	27
	Hotel	310	150	Sq. Ft.	1,835	PM Pk Hr	109	109	49%	51%	53	56
	Bread/Coffe/Donut Shop	939	2,000	Sq. Ft.	1,641	PM Pk Hr	56	56	50%	50%	28	28
1080 1st Ave. South	Multifamily	221	61	DUs	331	PM Pk Hr	28	28	61%	39%	17	11
Wynn Site	Multifamily	221	22	DUs	118	PM Pk Hr	10	10	61%	39%	6	4
Gulfshore Playhouse	Live Theater	444	458	Seat	440	PM Pk Hr	117	117	75%	25%	88	29
Study Area Totals					**7,766**		**701**	**701**			**385**	**316**
							593	**593**			**337**	**256**

Notes:
ITE 10th Ed. Trip Rates, excpet as noted
All data from existing TIS where available, except as noted
Naples Square - Only 65 Dus remianing un-built - existing DUs assumed to be in the existing travel stream
Naples Square - Bread/Coffe/Donut Shop w/o Drive-thru ITE Rates used for Peak Hour (#936 used in TIS only Person Trips rates were available)
Wynn Site - Approved PUD did not have a TIS, land use in the D-Downtown District unsettled. Proportional development progarm used from 1080 1st Ave. S.
Gulfshore Playhouse - Trips from original TIS and Supllemental TIS; 24-hour volumes absent form TIS, were based on Multiplex Theater w/ 2 screens
No adjsutements made for internal capture or pass-by capture
No adjustments made for replacement of existing uses

Status	*Land Use*	*ITE Code*	*Size*	*Units*
Existing	Multi-Family Housing (Mid-Rise)	221	288	Dwelling Units
Existing	Shopping Center	820	9.4	1000 S.F. GFA
Existing	High-Turnover (Sit-Down) Restaurant	932	7.4	1000 S.F. GFA
Proposed	Hotel	310	150	Rooms
Proposed	Shopping Center	820	7.3	1000 S.F. GFA
Proposed	Coffee/Donut Shop w/o Drive-Through	936	2.0	1000 S.F. GFA

Distribution of proposed traffic to and from the development during the peak hours is shown in Table 3 and Figures 2 and 3 below.

Traffic Analysis Results

Table 1: Unadjusted Project Traffic Generation

Summary	Peak Hour AM		Peak Hour PM		Weekday	
	Entry	*Exit*	*Entry*	*Exit*	*Entry*	*Exit*
Total	216	240	223	191	3,594	3,594
Existing	74	103	117	80	1,569	1,569
Proposed	142	137	106	111	2,025	2,025

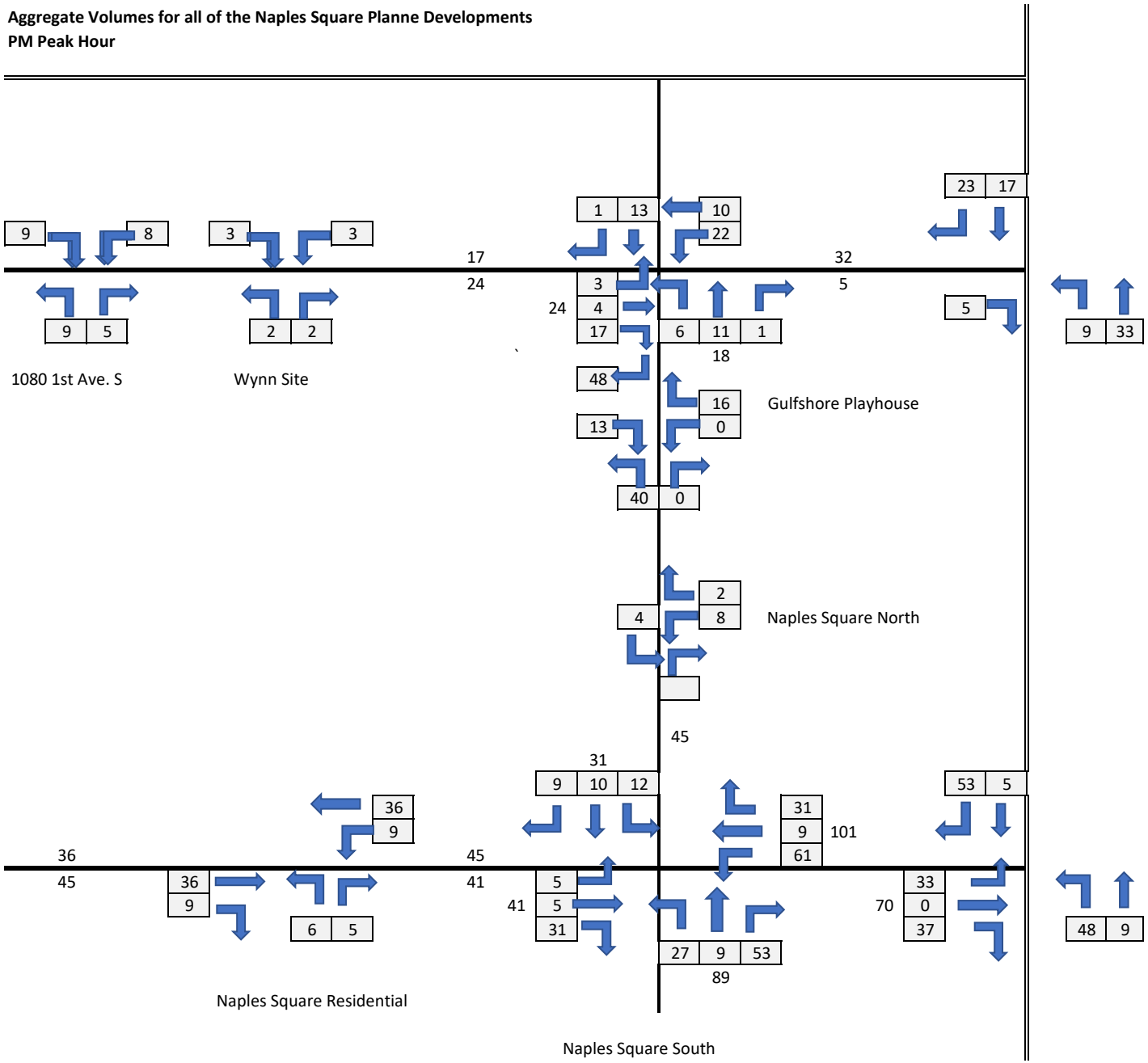
Table 2
Trip Generation (Proposed Conditions) – Average Weekday

Development		24 Hour Two-Way Volume	PM Peak Hour		
Land Use	Size		Enter	Exit	Total
Live Theater	458 seats	491	29	88	117

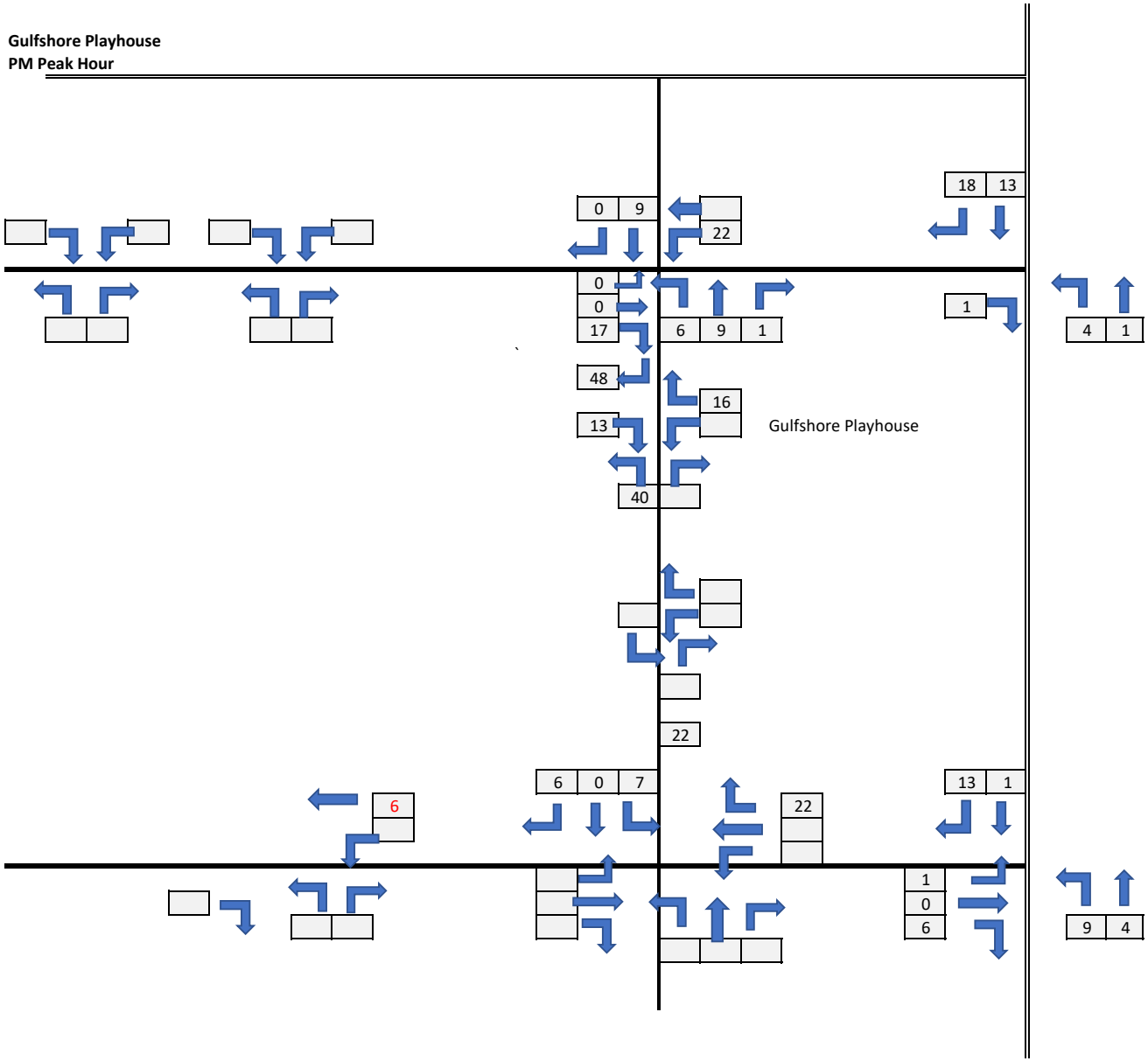
Status	*Land Use*	*ITE Code*	*Size*	*Units*
Proposed	Multi-Family Housing (Mid-Rise)	221	61	Dwelling Units

1080 1st Ave. South 61 Dus on 2.46 acres = 24.79675 Dus per acre
Wynn Site 22 Dus on 0.9 acres

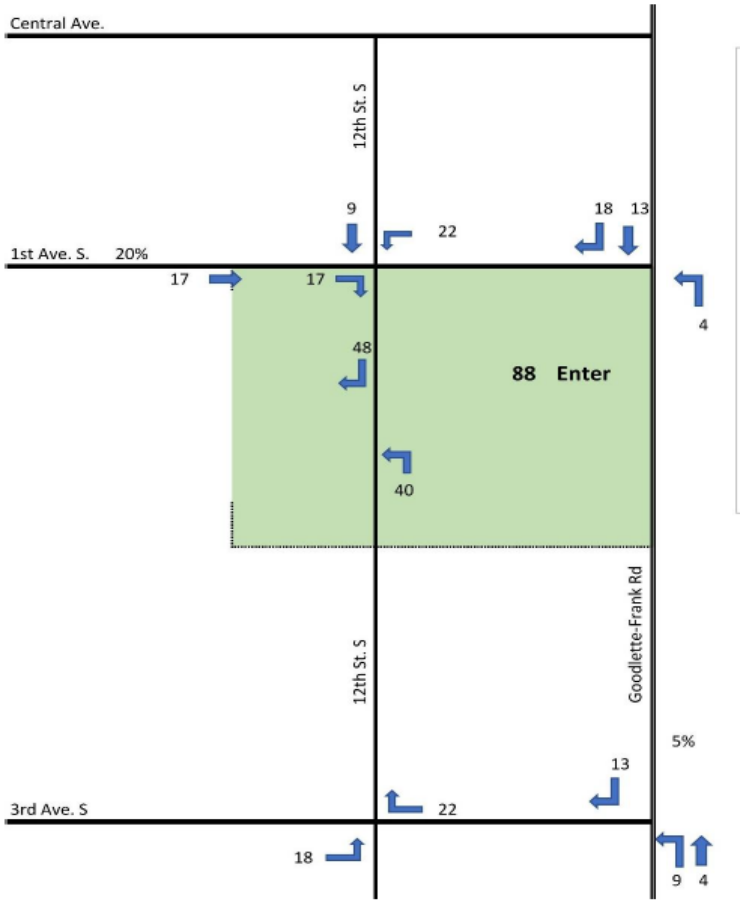
Aggregate Volumes for all of the Naples Square Planne Developments
PM Peak Hour

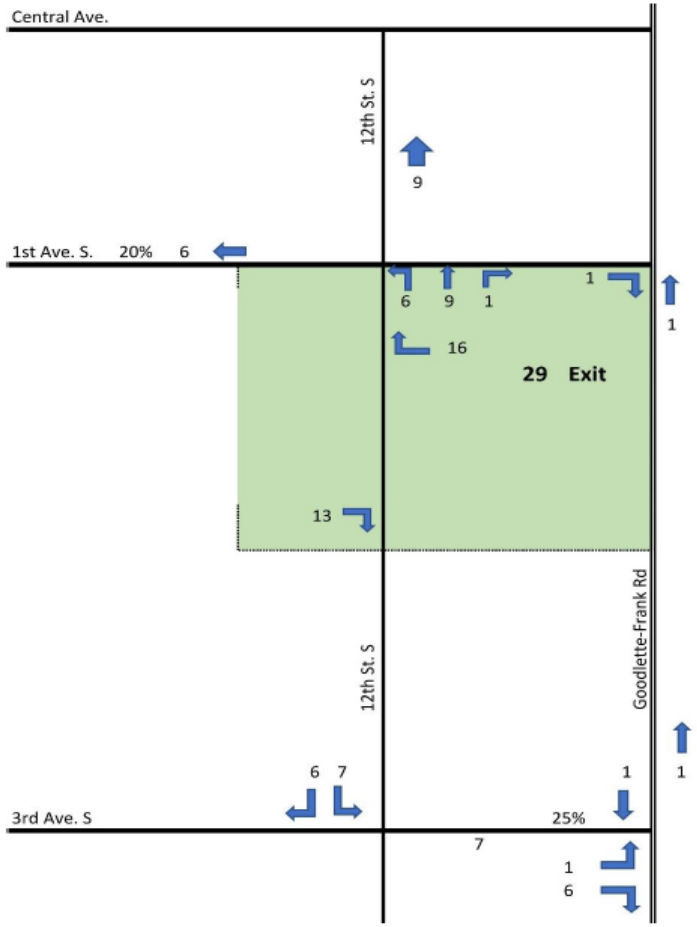


Gulfshore Playhouse
PM Peak Hour

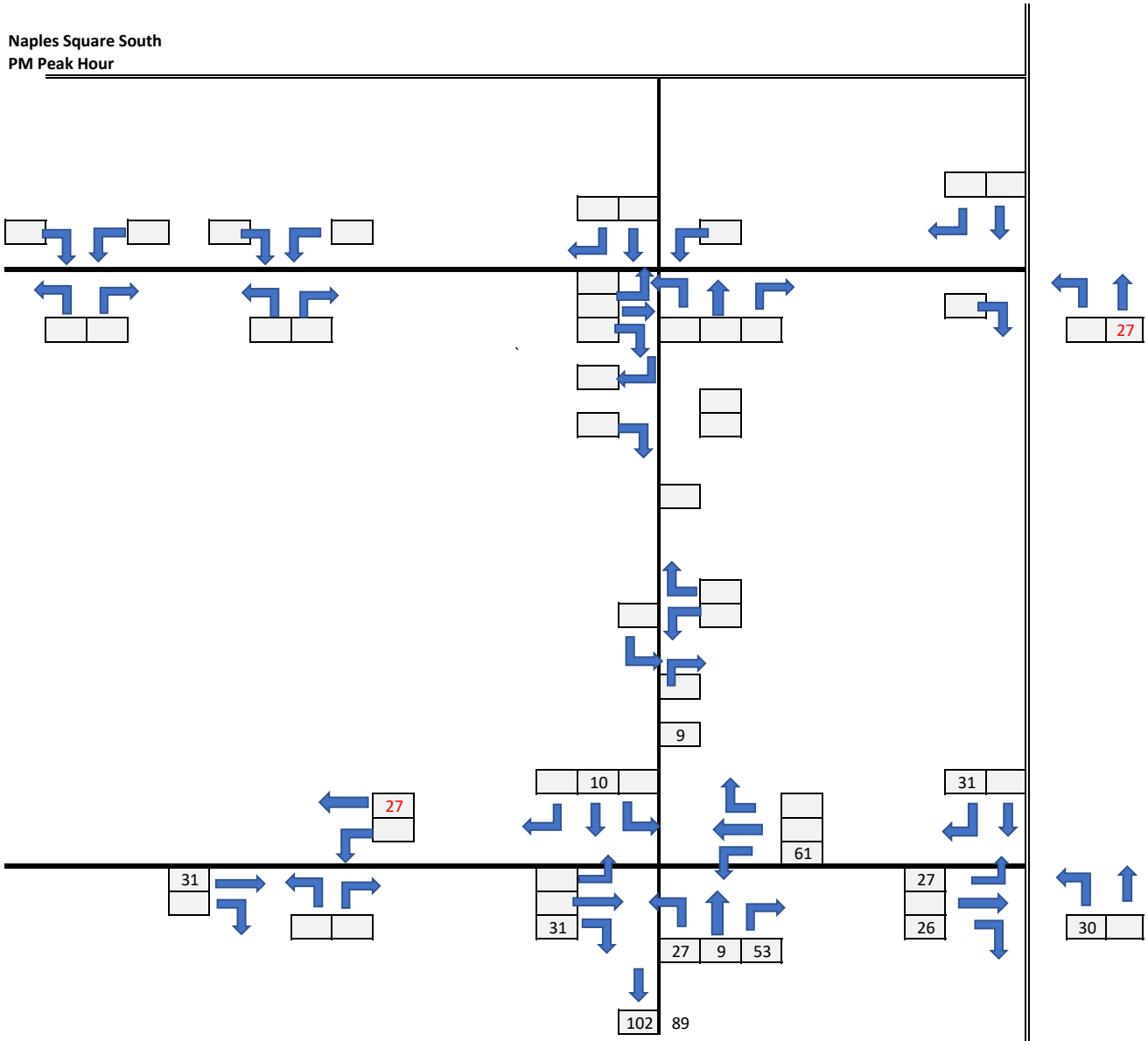


Gulfshore Playhouse
PM Peak Hour





Naples Square South
PM Peak Hour



Naples Square South

Naples Square South
PM Peak Hour

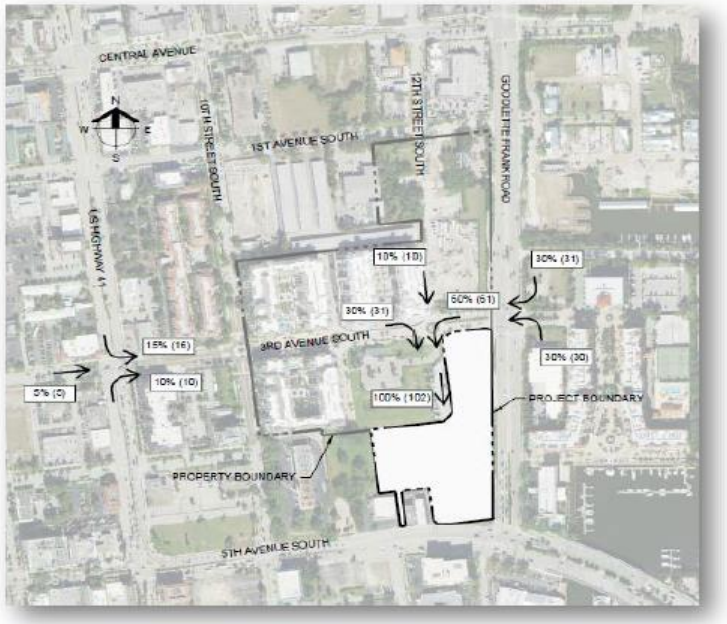


Figure 2: PM Peak Hour Entering Trips

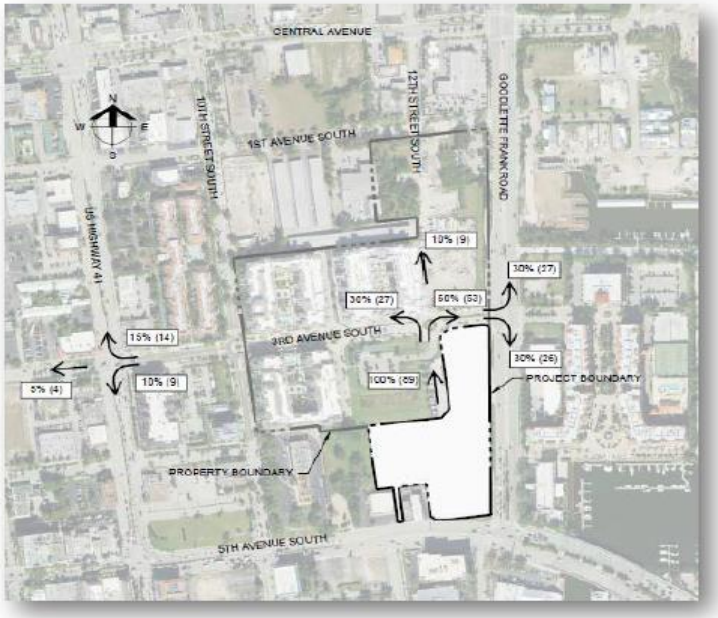
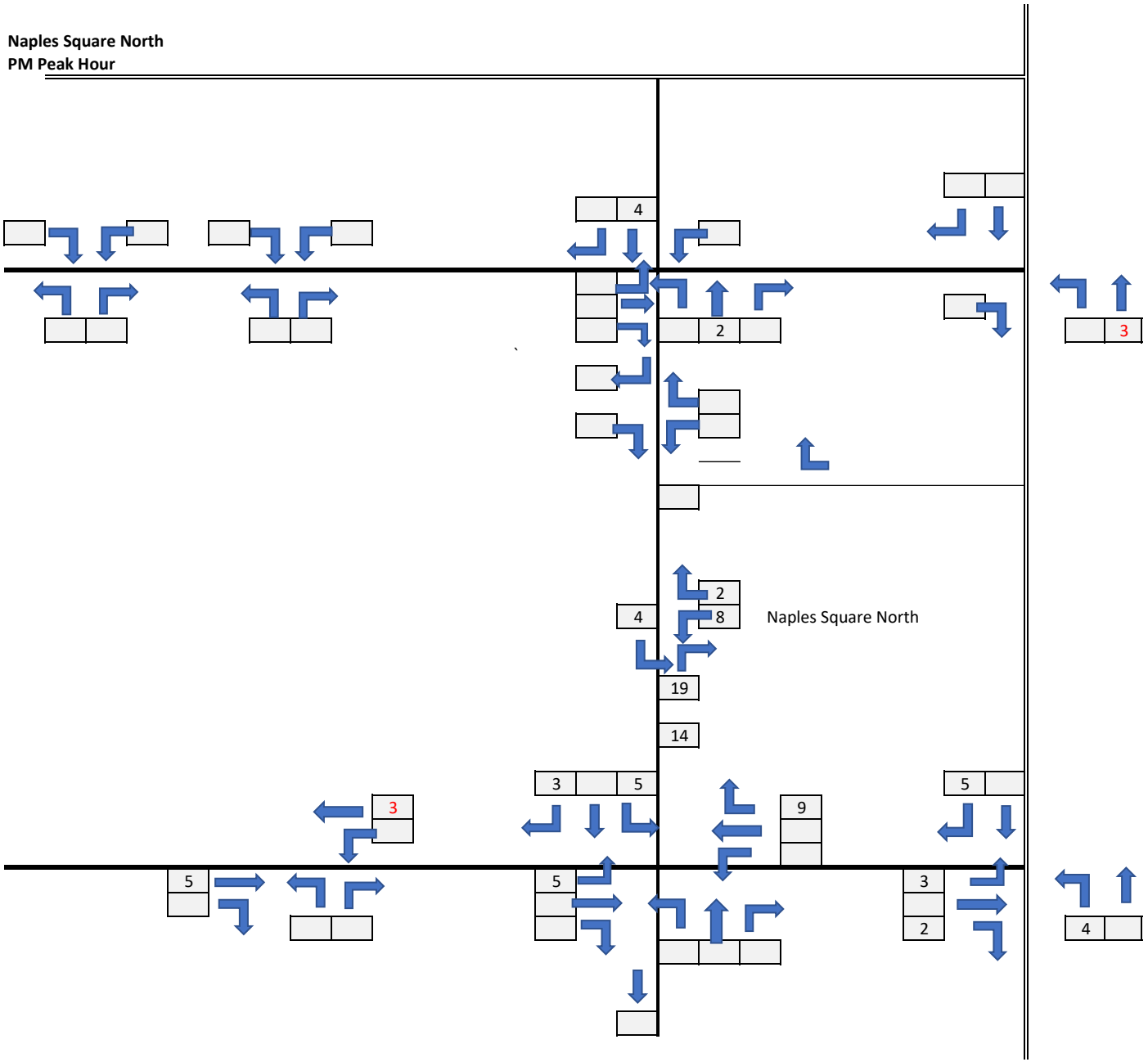


Figure 3: PM Peak Hour Exiting Trips

Table 2: Adjusted PM Peak Hour Proposed Trips

PM Peak Hour	*Unadjusted Trips for Total*	*Reductions for Total*	*Adjusted Trips for Total*	*Adjusted Existing Trips*	***Proposed Trips***
Entry	223	74	149	75	**74**
Exit	191	74	117	38	**79**

Naples Square North
PM Peak Hour



Naples Square North
PM Peak Hour

Table 2: Adjusted PM Peak Hour Traffic Generation

PM Peak Hour	*Total Generated Trips*	*Total Reductions*	*Total Adjusted Trips*	*Existing Trips*	***Proposed Trips***
Entry	103	50	53	35	**18**
Exit	65	41	24	14	**10**

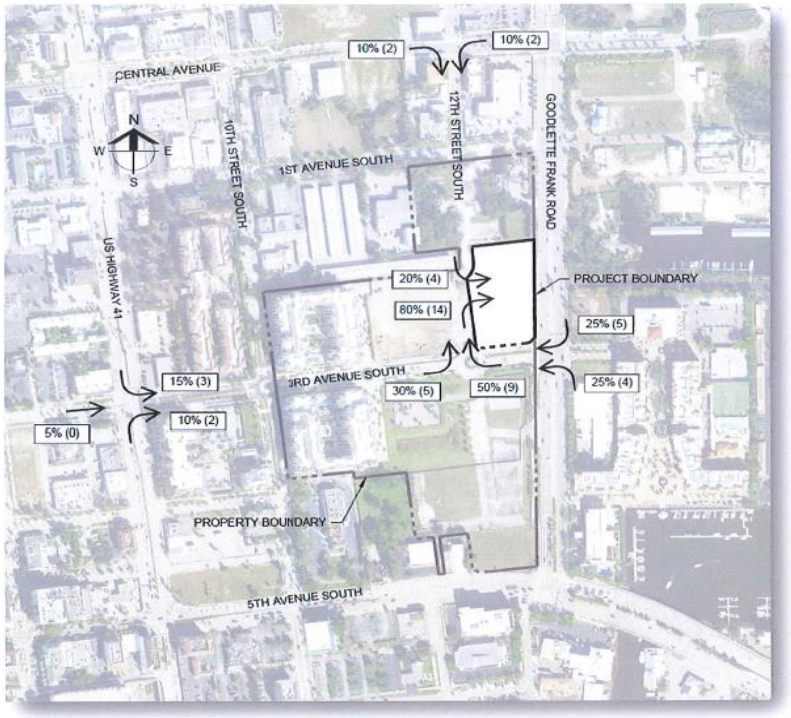


Figure 2: PM Peak Hour Entering Trips

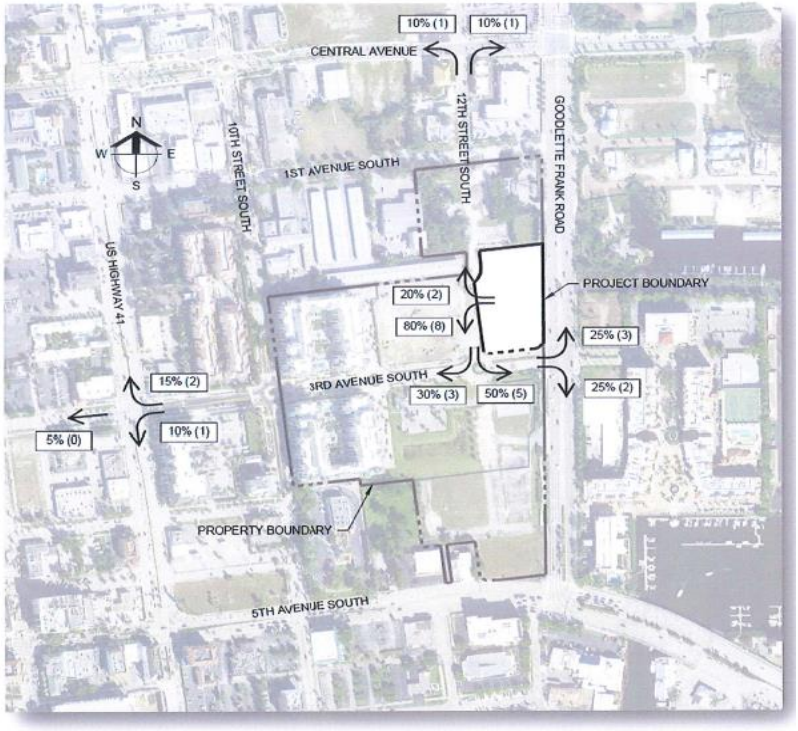
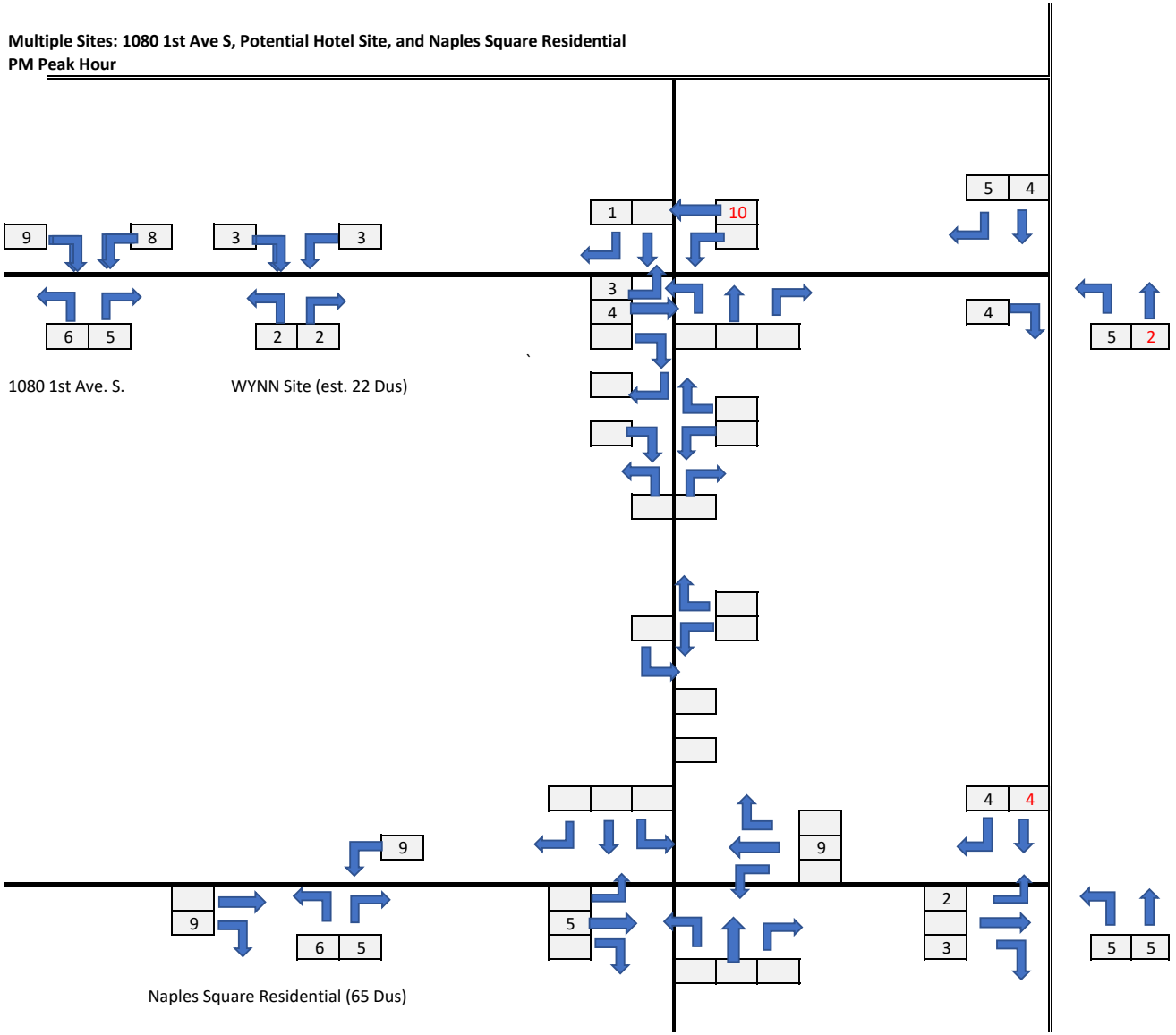


Figure 3: PM Peak Hour Exiting Trips

Multiple Sites: 1080 1st Ave S, Potential Hotel Site, and Naples Square Residential
PM Peak Hour



Multiple Sites: 1080 1st Ave S, Potential Hotel Site, and Naples Square Residential
PM Peak Hour

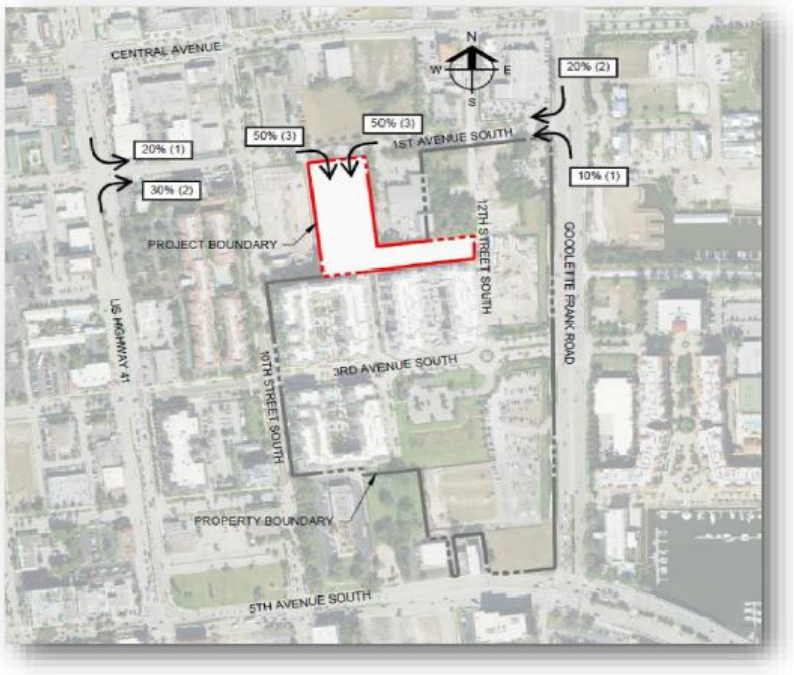


Figure 2: PM Peak Hour Entering Trips

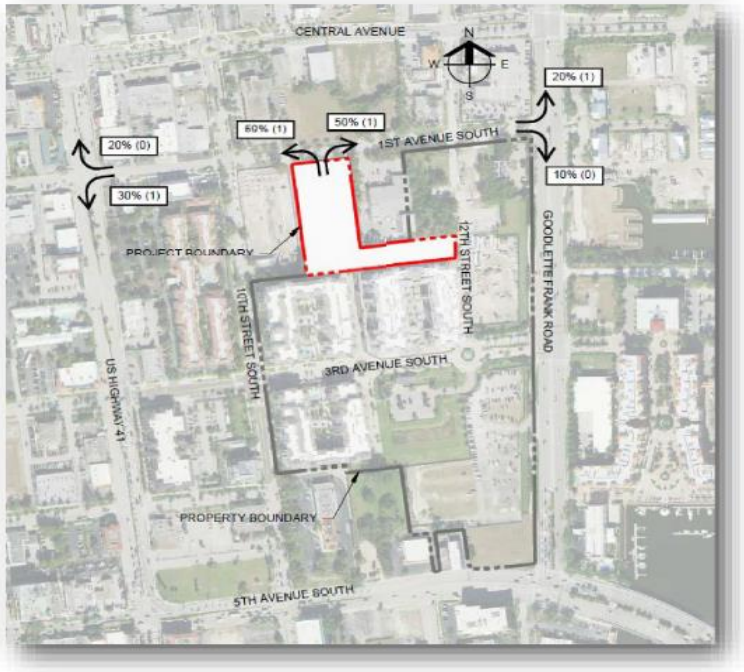


Figure 3: PM Peak Hour Exiting Trips

Table 2: Adjusted PM Peak Hour Proposed Trips

PM Peak Hour	*Unadjusted Trips for Total*	*Reductions for Total*	*Adjusted Trips for Total*	*Adjusted Existing Trips*	***Proposed Trips***
Entry	233	74	159	153	**6**
Exit	197	74	123	121	**2**

APPENDIX E – LEVEL OF SERVICE (LOS) BUILD-OUT ANALYSIS

Level of Service (LOS) Build-out Analysis of the Naples Square Planned Development During the PM Peak Hour

Roadway	Segment	Adopted LOS Goal (1)	Type of Road (2)	Exclusive Turn Lanes	Maximum Peak Hour Service Volume (3), (4)	Future PM Peak Hour Traffic Volumes in Year 2027			Projected LOS in Year 2027
						Background Traffic	Naples Square Planned Development Trips	Total Volumes	
1st Avenue S	12th Street and Goodlette Frank Road	C	2LU	No	1570	108	37	145	C
	10th Street S and 12th Street S	C	2LU	No	1570	108	41	149	C
3rd Avenue S	9th Street S and 10th Street S	C	2LU	No	1570	274	81	355	C
	10th Street S and 12th Street S	C	2LU	No	1570	274	86	360	C
	12th Street S and Goodlette Frank Road	C	2LU	No	1570	274	171	445	C
Goodlette Frank Road	north of 1st Avenue S	E	6LD	Yes	4131	2949	91	3040	D
	1st Avenue S and 3rd Avenue S	E	6LD	Yes	4131	2949	91	3040	D
	south of 3rd Avenue S	E	6LD	Yes	4131	2949	94	3043	D
12th Street S	1st Ave S and 3rd Ave S	C	2LU	No	1570	0	73	73	C

Note:

(1) According to Policy 1-3 of the Transportation Element of the City of Naples Comprehensive Plan, enacted January 20, 2021

(2) 2LU = 2 lanes undivided; 6LD = 6 lanes divided

(3) Local roads (1st Avenue S, 3rd Avenue S, and 12th Street S) will be based on previously approved TIS in the Naples Square Planned Development area

(4) Goodlette Frank Road is based on the FDOT 2020 Quality/Level of Service Handbook for Peak Hour Two-Way Volumes in Urbanized Areas