

SITE ASSESSMENT STUDY

ENCOMPASS HEALTH
PALM BEACH GARDENS, FL

PREPARED FOR:
WEST OUTPARCEL, LLC

Kimley»»Horn

Project #048028008
April 20, 2021
Revised September 3, 2021
Revised February 16, 2022
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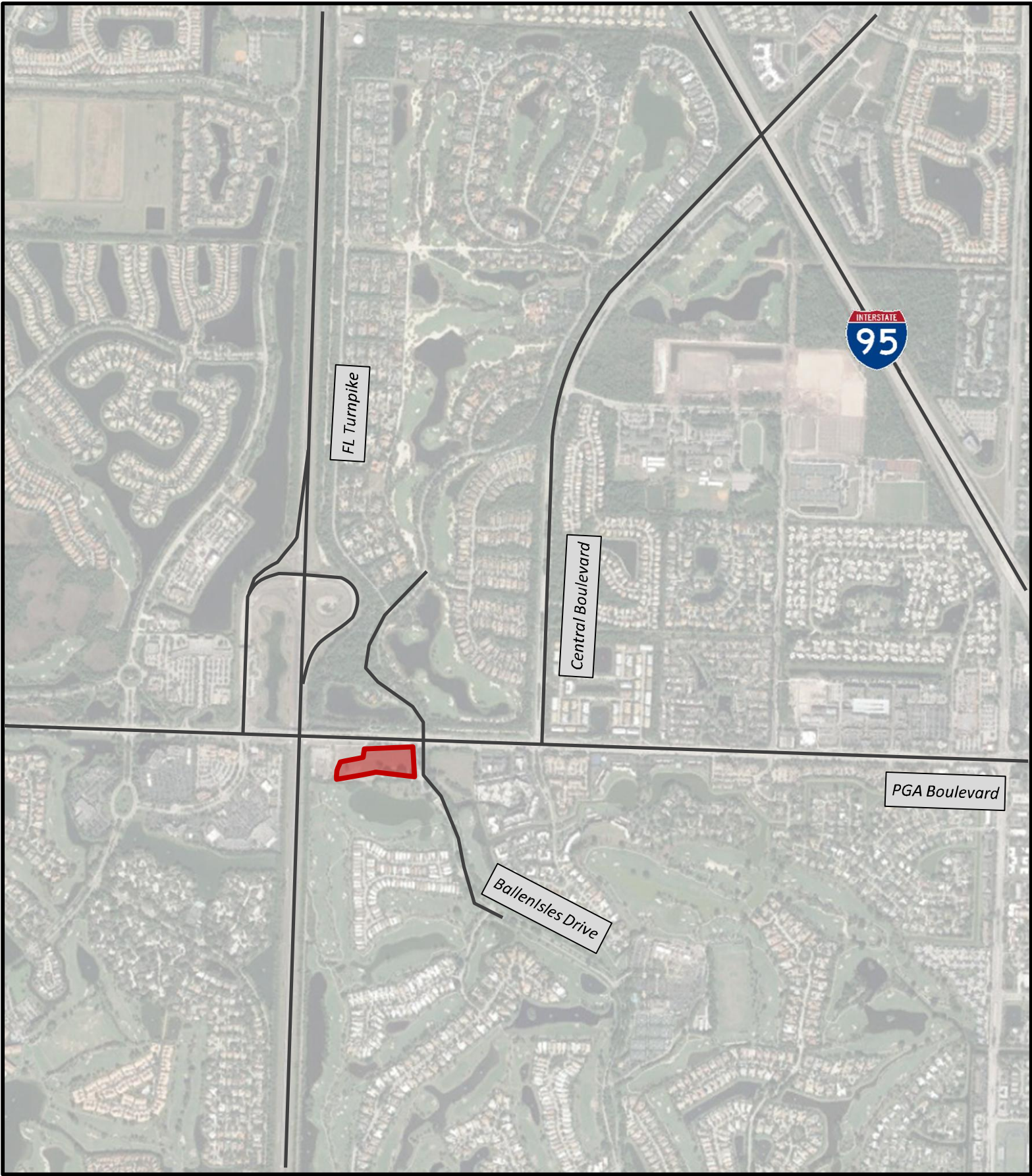
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INTRODUCTION

The proposed Encompass Health site is currently a vacant lot located on the southwest corner of PGA Boulevard & BallenIsles Drive in the City of Palm Beach Gardens. The location of the site is shown in *Figure 1*. The existing site contains 11,077 square feet of maintenance facilities for the golf course. The proposed plan of development includes the construction of a 76,219 square foot hospital and physical rehabilitation facility in two phases. Phase I consists of 55,445 square feet of hospital use. Phase II consists of an additional 20,774 square feet of hospital use. The following analysis has been performed to evaluate transportation impacts generated by the development on the surrounding road network, and to evaluate transportation-related elements of this site in the context of the City's Mobility Plan.



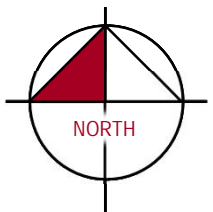
FL Turnpike

Central Boulevard



PGA Boulevard

BallenIsles Drive



LEGEND



-  SITE LOCATION
-  TRAFFICWAYS EVALUATED

FIGURE 1
 BallenIsles West Parcel Mobility Study
 KH #040828008
 Site Location

TRIP GENERATION

The existing site on the southwest corner of PGA Boulevard & BallenIsles Drive is vacant, and therefore no credit was taken for existing trips because the site is not currently generating any traffic. The proposed program of development includes the construction of a 76,319 square foot hospital and physical rehabilitation facility.

TRIP POTENTIAL

The trip generation potential for this site was calculated using rates and equations published by Palm Beach County Traffic Engineering division for Hospital use (Land Use 610). The trip generation calculations for the site are summarized in Table 1.

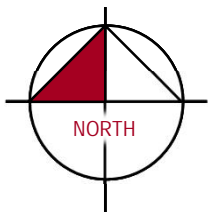
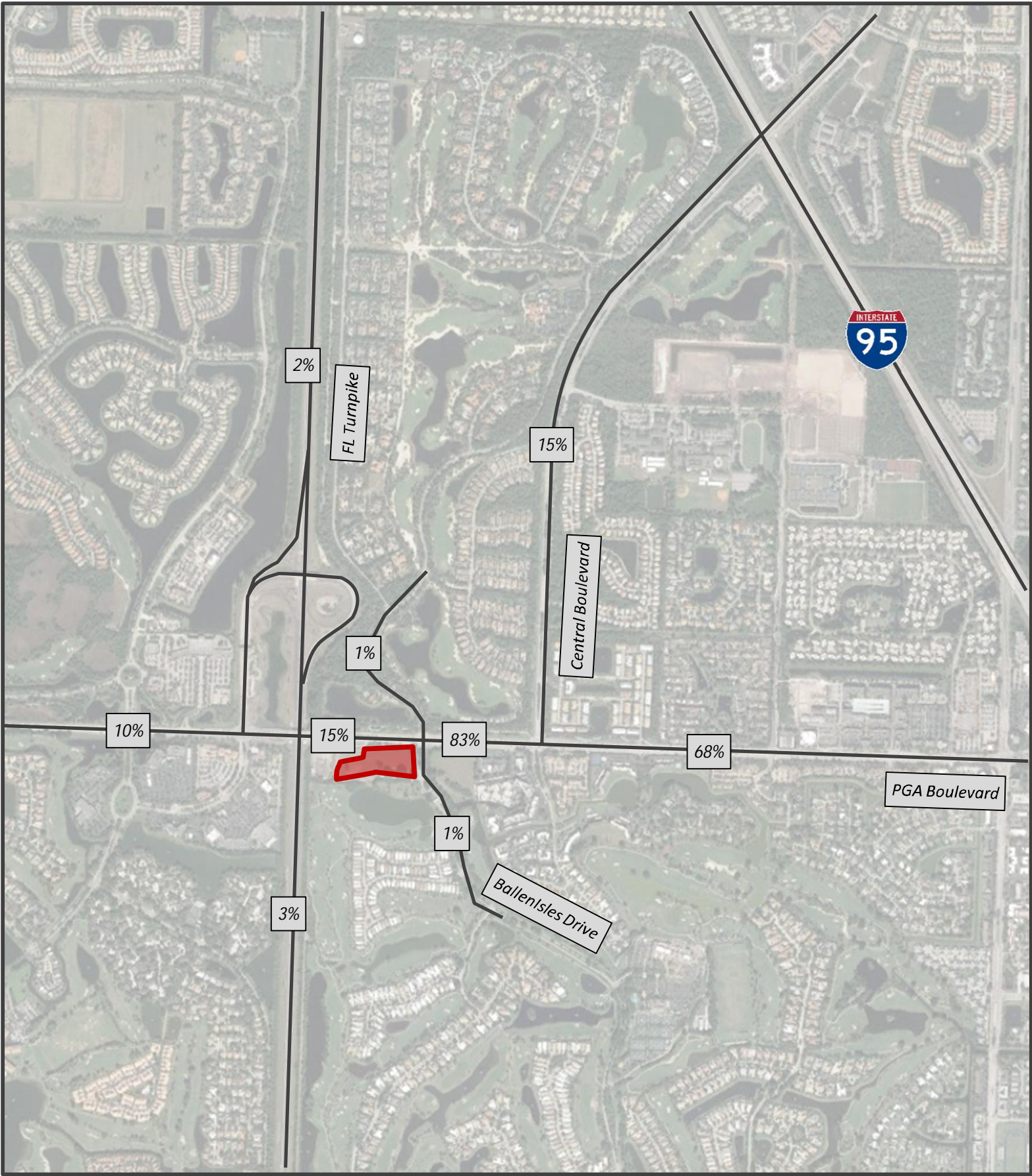
Table 1: Trip Generation Calculations

| Land Use | Intensity | Daily Trips | AM Peak Hour | | | PM Peak Hour | | |
|---|----------------------|---------------------------------------|----------------|-----------|---------------------------------------|--------------|----------------|-----------|
| | | | Total | In | Out | Total | In | Out |
| Existing Scenario | | | | | | | | |
| Golf Course Maintenance Buildings* | 11.077 SF | 239 | 33 | 20 | 13 | 39 | 10 | 29 |
| | <i>Subtotal</i> | 239 | 33 | 20 | 13 | 39 | 10 | 29 |
| Pass-By Capture | | | | | | | | |
| Golf Course Maintenance Buildings* | 0.0% | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | <i>Subtotal</i> | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Driveway Volumes | | 239 | 33 | 20 | 13 | 39 | 10 | 29 |
| Net New External Trips | | 239 | 33 | 20 | 13 | 39 | 10 | 29 |
| Phase I of Development | | | | | | | | |
| Hospital | 55.445 KSF | 594 | 49 | 33 | 16 | 54 | 17 | 37 |
| Golf Course Maintenance Buildings* | 11.077 SF | 239 | 33 | 20 | 13 | 39 | 10 | 29 |
| | <i>Subtotal</i> | 833 | 82 | 53 | 29 | 93 | 27 | 66 |
| Pass-By Capture | | | | | | | | |
| Hospital | 10.0% | 59 | 5 | 3 | 2 | 5 | 2 | 3 |
| | <i>Subtotal</i> | 59 | 5 | 3 | 2 | 5 | 2 | 3 |
| Driveway Volumes | | 833 | 82 | 53 | 29 | 93 | 27 | 66 |
| Net New External Trips | | 774 | 77 | 50 | 27 | 88 | 25 | 63 |
| Driveway Volume Differential (Phase I - Existing) | | 594 | 49 | 33 | 16 | 54 | 17 | 37 |
| Trip Differential (Phase I - Existing) | | 535 | 44 | 30 | 14 | 49 | 15 | 34 |
| Proposed Scenario | | | | | | | | |
| Hospital | 76.219 KSF | 817 | 68 | 46 | 22 | 74 | 24 | 50 |
| Golf Course Maintenance Buildings* | 11.077 SF | 239 | 33 | 20 | 13 | 39 | 10 | 29 |
| | <i>Subtotal</i> | 1,056 | 101 | 66 | 35 | 113 | 34 | 79 |
| Pass-By Capture | | | | | | | | |
| Hospital | 10.0% | 82 | 7 | 5 | 2 | 7 | 2 | 5 |
| | <i>Subtotal</i> | 82 | 7 | 5 | 2 | 7 | 2 | 5 |
| Driveway Volumes | | 1,056 | 101 | 66 | 35 | 113 | 34 | 79 |
| Net New External Trips | | 974 | 94 | 61 | 33 | 106 | 32 | 74 |
| Driveway Volume Differential (Phase II - Existing) | | 817 | 68 | 46 | 22 | 74 | 24 | 50 |
| Trip Differential (Phase II - Existing) | | 735 | 61 | 41 | 20 | 67 | 22 | 45 |
| Radius of Development Influence: | | | 1 miles | | | | | |
| Land Use | Daily | AM Peak Hour | | | PM Peak Hour | | Pass By | |
| Hospital | 10.72 trips/1,000 sf | 0.89 trips/1,000 sf (68% in, 32% out) | | | 0.97 trips/1,000 sf (32% in, 68% out) | | 10.0% | |
| *Golf Course Maintenance Building - Trips determined from driveway counts at existing access locations on PGA Boulevard and BallenIsles Drive | | | | | | | | |

As illustrated in the table above, the proposed Encompass Health site will generate an increase of 735 Daily Trips, an increase of 61 (+41 in, +20 out) AM peak hour trips, and an increase of 67 (+22 in, + 45 out) PM peak hour trips.

TRAFFIC DISTRIBUTION & ASSIGNMENT

The site traffic was assigned to the surrounding roadway network based upon travel patterns for this area and proximity to complimentary land uses. *Figure 2* illustrates the project traffic assignment to nearby roadway links and intersections in the vicinity of the site. The AM and PM peak hour trips for the project were then assigned to the surrounding transportation system based on these percentages.



LEGEND




-  SITE LOCATION
-  TRAFFICWAYS EVALUATED
-  % PROJECT TRAFFIC

FIGURE 2
 BallenIsles West Parcel Mobility Study
 KH #040828008
 Traffic Distribution

INTERSECTION & DRIVEWAY ANALYSIS

As part of the mobility study, the intersections were analyzed for three scenarios: Existing (2021), Future Background (2026), and Future Total (2026). The existing year analysis is based on count data provided by the Palm Beach County Traffic Engineering Division for the intersections in the vicinity of the Encompass Health site. Future Background (2026) analyses include background traffic growth and committed development traffic for approved but unbuilt projects in the area. The traffic volume growth rate was determined to be 2.31% compounded annually by calculating an annual weighted average growth rate using data provided at Florida Department of Transportation (FDOT) traffic monitoring sites. Calculations for the growth rate are included in *Appendix B* for reference. The Future Total (2026) analysis uses the Future Background (2026) volumes as a baseline and includes the addition of project traffic for this site. The Future Total (2026) volumes are a representation of the volumes that are expected at the intersections in the year 2026, once the project is fully built out.

DATA COLLECTION

Baseline traffic count data was collected during the AM peak period (7:00 AM to 9:00 AM) and the PM peak period (4:00 PM to 6:00 PM) at intersections within the study area. The most recent data provided by the Palm Beach County Traffic Engineering Division for the intersections within the RDI is from the year 2018. Therefore, these volumes were grown over a three-year period to develop baseline 2021 volumes using the calculated areawide growth rate of 2.31%. Following is a list of the intersections within the RDI which were analyzed:

1. BallenIsles Drive & PGA Boulevard
2. Central Boulevard & PGA Boulevard
3. BallenIsles Drive & Project Driveway

EXISTING (2021) ANALYSIS

Analyses were conducted at the study intersections to evaluate Level of Service and delay for drivers during existing conditions. For counts conducted outside of Peak Season, the Peak Season Conversion Factor (PSCF), published by FDOT, was applied. It should be noted that existing baseline analysis is based on traffic volumes that were developed using 2018 count data and growing to existing conditions using a compounding annual growth rate of 2.31%. Figure 3 illustrates the existing intersection volumes at the study intersections. For signalized intersections, signal timing data was provided by the county. Signal timing sheets are included in *Appendix B*.

SYNCHRO RESULTS

Synchro 10 software was used to analyze the signalized and unsignalized intersections in the vicinity of the Encompass Health site. HCM 6th Edition methodology was used to determine the delay and LOS at the intersection of BallenIsles Drive & PGA Boulevard and at the intersection of the project driveway & BallenIsles Drive. HCM 2000 methodology was used to determine the delay and LOS of the intersection of Central Boulevard & PGA Boulevard, due to the unique phasing and lane geometry at the study intersections. The results of the Synchro analysis are summarized below. The overall delay for each of the analyzed intersections are summarized below in Error! Reference source not found. Table 2 for the AM and PM peak hours of operation.

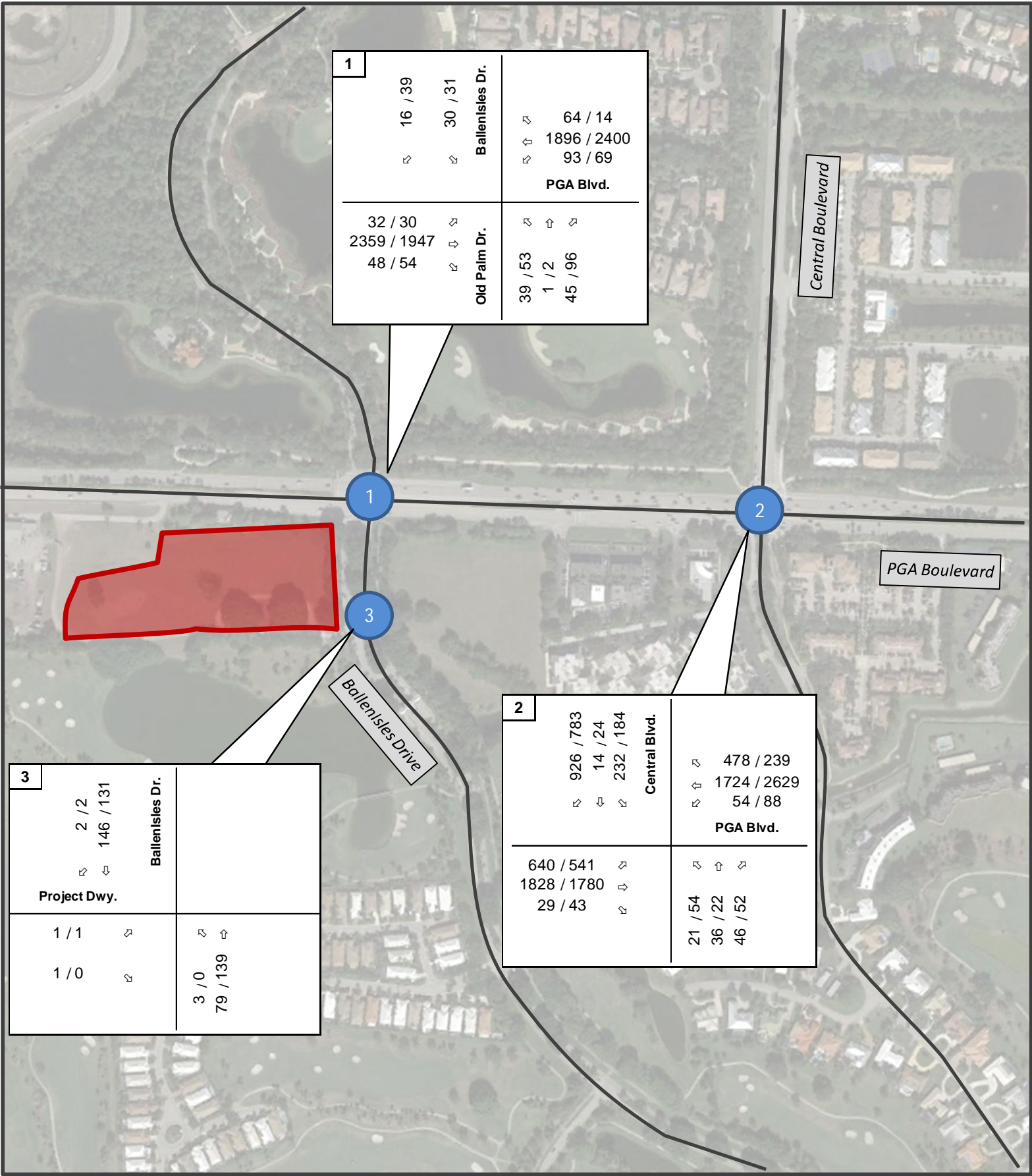
Table 2: Existing (2021) Synchro Results

| # | Intersection | AM Peak | | PM Peak | |
|---|---------------------------------------|--------------|-----|--------------|-----|
| | | Delay (sec.) | LOS | Delay (sec.) | LOS |
| 1 | BallenIsles Drive & PGA Boulevard | 11.4 | B | 10.9 | B |
| 2 | Central Boulevard & PGA Boulevard | 120.9 | F | 246.9 | F |
| 3 | BallenIsles Drive & Project Driveway* | - | - | - | - |

* There are currently no conflicting movements at the project driveway. Therefore, no delay/LOS data is available for the existing scenario.

The following intersection currently operates at LOS E or F:

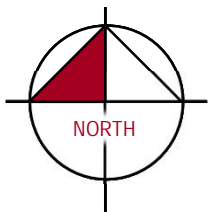
- Central Boulevard & PGA Boulevard (AM & PM Peak Hour)




| | |
|------------------------|---------------|
| 1 | |
| ↖ 16 / 39 | ↘ 30 / 31 |
| BallenIsles Dr. | |
| ↖ 64 / 14 | ↘ 1896 / 2400 |
| PGA Blvd. | |
| ↖ 32 / 30 | ↘ 48 / 54 |
| Old Palm Dr. | |
| ↖ 39 / 53 | ↘ 1 / 2 |
| 39 / 53 | |
| 1 / 2 | |
| 45 / 96 | |


| | |
|----------------------|---------------|
| 2 | |
| ↖ 926 / 783 | ↘ 14 / 24 |
| Central Blvd. | |
| ↖ 478 / 239 | ↘ 1724 / 2629 |
| PGA Blvd. | |
| ↖ 54 / 88 | ↘ 640 / 541 |
| PGA Blvd. | |
| ↖ 640 / 541 | ↘ 1828 / 1780 |
| PGA Blvd. | |
| ↖ 29 / 43 | ↘ 21 / 54 |
| PGA Blvd. | |
| 21 / 54 | |
| 36 / 22 | |
| 46 / 52 | |

| | |
|------------------------|-------------|
| 3 | |
| ↖ 2 / 2 | ↘ 146 / 131 |
| BallenIsles Dr. | |
| ↖ 1 / 1 | ↘ 3 / 0 |
| Project Dwy. | |
| ↖ 1 / 0 | ↘ 79 / 139 |
| Project Dwy. | |
| 3 / 0 | |
| 79 / 139 | |



LEGEND

 SITE LOCATION

 TRAFFICWAYS EVALUATED

XX / XX AM TRIPS/PM TRIPS

FIGURE 3
 BallenIsles West Parcel Mobility Study
 KH #040828008
 Existing (2021) Volumes



BACKGROUND YEAR (2026) CONDITIONS

Background traffic is calculated from historical annual growth rates and/or traffic from the unbuilt portions of committed developments. The Palm Beach County Traffic Division maintains a database containing anticipated traffic volumes associated with committed development projects in the area. The impacts of the approved projects were added to the intersections that were subject to analysis. Peak hour committed development traffic as reported in the TPS database is summarized in *Appendix B*.

A compounding annual growth rate of 2.31% was applied to all intersection movements within the study area. Background committed developments were also included in the growth calculations to determine the Future Background (2026) traffic volumes that would be expected on the roadway without the development at the Encompass Health site. Figure 4 illustrates the intersection volumes that are expected in the Background Year (2026) without project traffic.

SYNCHRO RESULTS

Synchro 10 software was used to analyze the signalized and unsignalized intersections in the vicinity of the Encompass Health site. HCM 6th Edition methodology was used to determine the delay and LOS at the intersection of BallenIsles Drive & PGA Boulevard and at the intersection of the project driveway & BallenIsles Drive. HCM 2000 methodology was used to determine the delay and LOS of the intersection of Central Boulevard & PGA Boulevard, due to the unique phasing and lane geometry at the study intersections. The results of the Synchro analysis are summarized below. The overall delay for each of the analyzed intersections are summarized below in Table 3 for the AM and PM peak hours of operation.

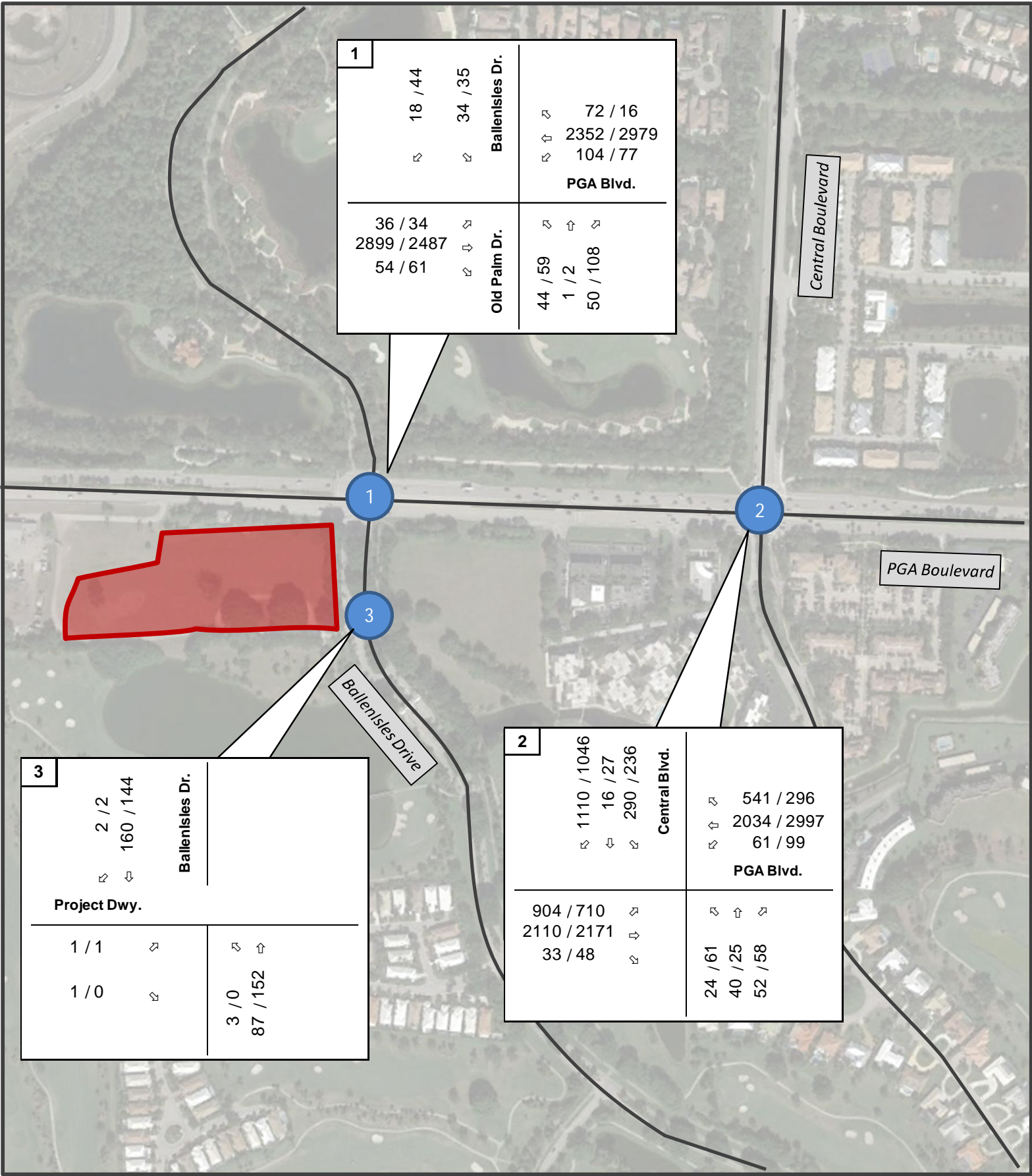
Table 3: Background Year (2026) Synchro Results

| # | Intersection | AM Peak | | PM Peak | |
|---|---------------------------------------|--------------|-----|--------------|-----|
| | | Delay (sec.) | LOS | Delay (sec.) | LOS |
| 1 | BallenIsles Drive & PGA Boulevard | 14.9 | B | 12.7 | B |
| 2 | Central Boulevard & PGA Boulevard | 258.9 | F | 380.3 | F |
| 3 | BallenIsles Drive & Project Driveway* | - | - | - | - |

* There are currently no conflicting movements at the project driveway. Therefore, no delay/LOS data is available for the existing scenario

The following intersection will operate at LOS F under future background (2026) conditions:

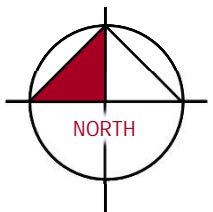
- Central Boulevard & PGA Boulevard (AM & PM Peak Hour)




| | |
|------------------------|---------|
| 1 | |
| 18 / 44 | 34 / 35 |
| ↻ | ↻ |
| BallenIsles Dr. | |
| 36 / 34 | ↻ |
| 2899 / 2487 | ↻ |
| 54 / 61 | ↻ |
| Old Palm Dr. | |
| 44 / 59 | ↻ |
| 1 / 2 | ↻ |
| 50 / 108 | ↻ |
| ↻ | ↻ |
| ↻ | ↻ |
| ↻ | ↻ |
| 72 / 16 | ↻ |
| 2352 / 2979 | ↻ |
| 104 / 77 | ↻ |
| PGA Blvd. | |


| | |
|----------------------|---|
| 2 | |
| 1110 / 1046 | ↻ |
| 16 / 27 | ↻ |
| 290 / 236 | ↻ |
| Central Blvd. | |
| ↻ | ↻ |
| ↻ | ↻ |
| ↻ | ↻ |
| 541 / 296 | ↻ |
| 2034 / 2997 | ↻ |
| 61 / 99 | ↻ |
| PGA Blvd. | |
| ↻ | ↻ |
| ↻ | ↻ |
| ↻ | ↻ |
| 904 / 710 | ↻ |
| 2110 / 2171 | ↻ |
| 33 / 48 | ↻ |
| 24 / 61 | ↻ |
| 40 / 25 | ↻ |
| 52 / 58 | ↻ |

| | |
|------------------------|---|
| 3 | |
| 2 / 2 | ↻ |
| 160 / 144 | ↻ |
| BallenIsles Dr. | |
| ↻ | ↻ |
| ↻ | ↻ |
| Project Dwy. | |
| 1 / 1 | ↻ |
| 1 / 0 | ↻ |
| 3 / 0 | ↻ |
| 87 / 152 | ↻ |



LEGEND

 SITE LOCATION

 TRAFFICWAYS EVALUATED

XX / XX AM TRIPS/PM TRIPS

FIGURE 4
 BallenIsles West Parcel Mobility Study
 KH #040828008
 Background (2026) Volumes



FUTURE YEAR (2026) CONDITIONS

The Future Total (2026) conditions represent the future traffic volumes that include a combination of background traffic growth on the transportation network, traffic generated by specific committed developments, and project traffic. The net change in trip generation potential that was calculated for the site was distributed across the transportation network using the trip distribution previously reported. Future driveway volumes were determined applying this same distribution to the site driveway. Figure 5 illustrates the project traffic distribution for the Encompass Health site. The project traffic volumes calculated in the trip generation table were then added to the Background Year (2026) intersection volumes to determine Future Total (2026) intersection volumes. These volumes are illustrated in Figure 6.

SYNCHRO RESULTS

Synchro 10 software was used to analyze the signalized and unsignalized intersections in the vicinity of the Encompass Health site. HCM 6th Edition methodology was used to determine the delay and LOS at the intersection of BallenIsles Drive & PGA Boulevard and at the intersection of the project driveway & BallenIsles Drive. HCM 2000 methodology was used to determine the delay and LOS of the intersection of Central Boulevard & PGA Boulevard, due to the unique phasing and lane geometry at the study intersections. The results of the Synchro analysis are summarized below. The overall delay for each of the analyzed intersections are summarized below in Table 4 for the AM and PM peak hours of operation.

Table 4: Future Total (2026) Synchro Results

| # | Intersection | AM Peak | | PM Peak | |
|---|--------------------------------------|--------------|-----|--------------|-----|
| | | Delay (sec.) | LOS | Delay (sec.) | LOS |
| 1 | BallenIsles Drive & PGA Boulevard | 17.7 | B | 14.7 | B |
| 2 | Central Boulevard & PGA Boulevard | 266.0 | F | 383 | F |
| 3 | BallenIsles Drive & Project Driveway | 10.2 | B | 10.4 | B |

Note that, for two-way stop-controlled intersections, the table above reports the highest delay/LOS for the minor street approach, as no delay or LOS value is given for the overall intersection.

The following intersections (or minor street approaches at two-way stop-controlled intersections) are expected to operate at LOS E or F:

- Central Boulevard & PGA Boulevard (AM & PM Peak Hour)

Note that this same intersection is anticipated to experience LOS F conditions in the future background conditions without additional development at this site. Therefore, the project does not create any new delay or LOS deficiencies at any of the study intersections.

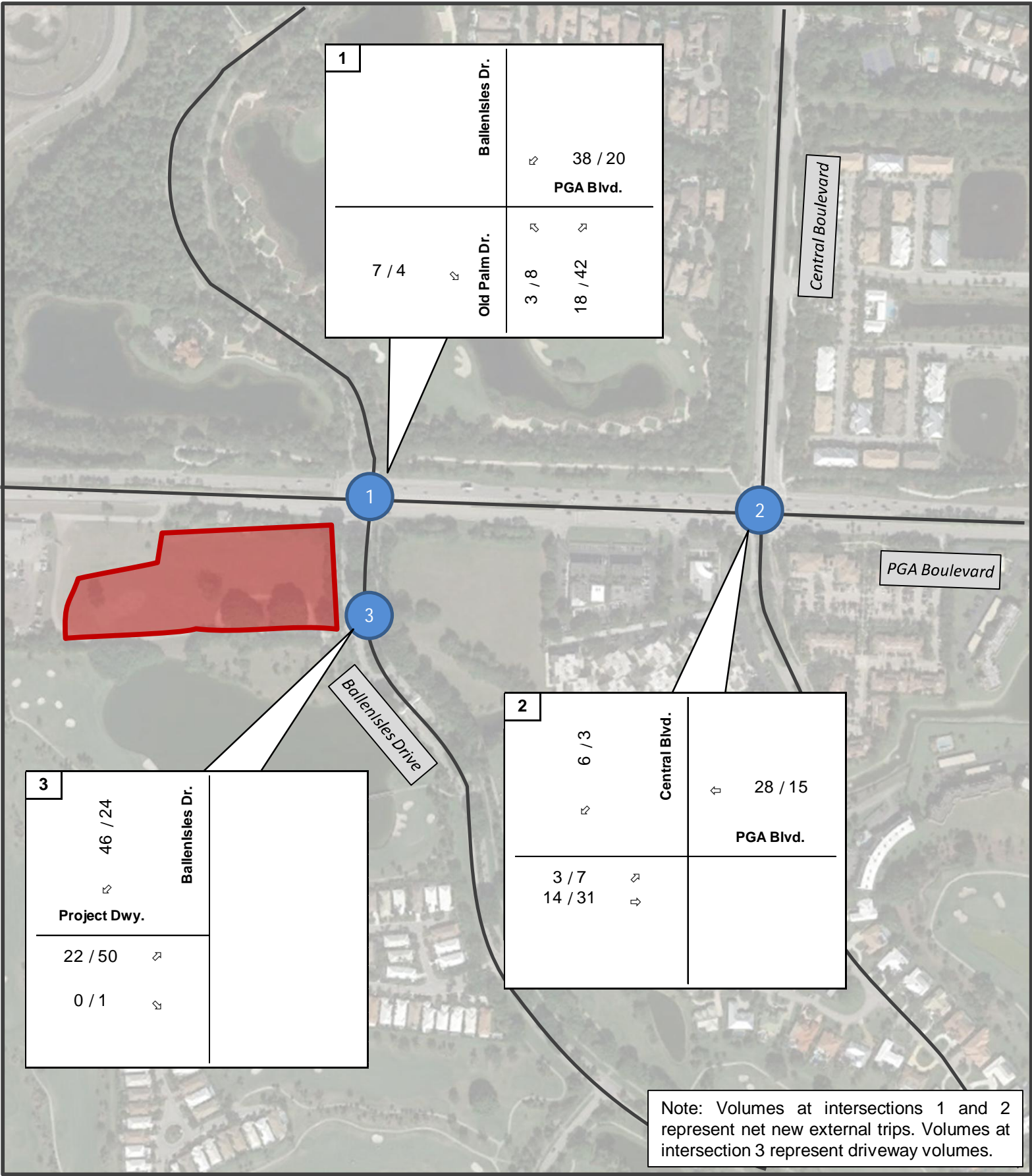
Additionally, the 95th percentile queues at the intersection of PGA Boulevard & BallenIsles Drive were reviewed in comparison to the existing turn lane storage lengths. Table 5 summarizes the 95th percentile queues at this intersection across all scenarios. As shown in Table 5, all 95th percentile queues are contained within the existing turn lane storage with the exception of the southbound left queue during

the AM and PM peak hours under future background and future total conditions. The project does not contribute traffic to this movement and, while the 95th percentile queues are anticipated to extend past the turnaround point, they will not extend to the gate.

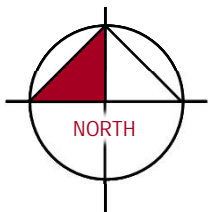
Table 5: PGA Boulevard & BallenIsles Drive 95th Percentile Queues

| | NBR | SBL | EBL | EBR | WBL | WBR |
|-----------------------|-----|-----|-----|-----|-----|-----|
| Existing Storage (ft) | 300 | 80 | 280 | 90 | 420 | 280 |
| AM Existing | 22 | 74 | 79 | 8 | 92 | 7 |
| AM Background | 29 | 81 | 85 | 12 | 77 | 5 |
| AM Future Total | 54 | 81 | 85 | 17 | 105 | 5 |
| PM Existing | 68 | 78 | 80 | 13 | 61 | 0 |
| PM Background | 95 | 84 | 87 | 17 | 52 | 0 |
| PM Future Total | 164 | 84 | 90 | 22 | 64 | 0 |

It should be noted that the project is proposing a southbound right-turn lane at the site driveway on BallenIsles Drive. This turn lane will better facilitate inbound turns into the project site and separate project traffic from BallenIsles traffic to minimize impacts to the existing traffic flow patterns. Additionally, the project is proposing median modifications at the driveway on BallenIsles Drive. These median modifications will impose a stop condition at the median so that vehicles turning left out of the project driveway will be required to do so in two stages and will be able to better see oncoming traffic. These improvements will improve safety and operations at the project driveway.



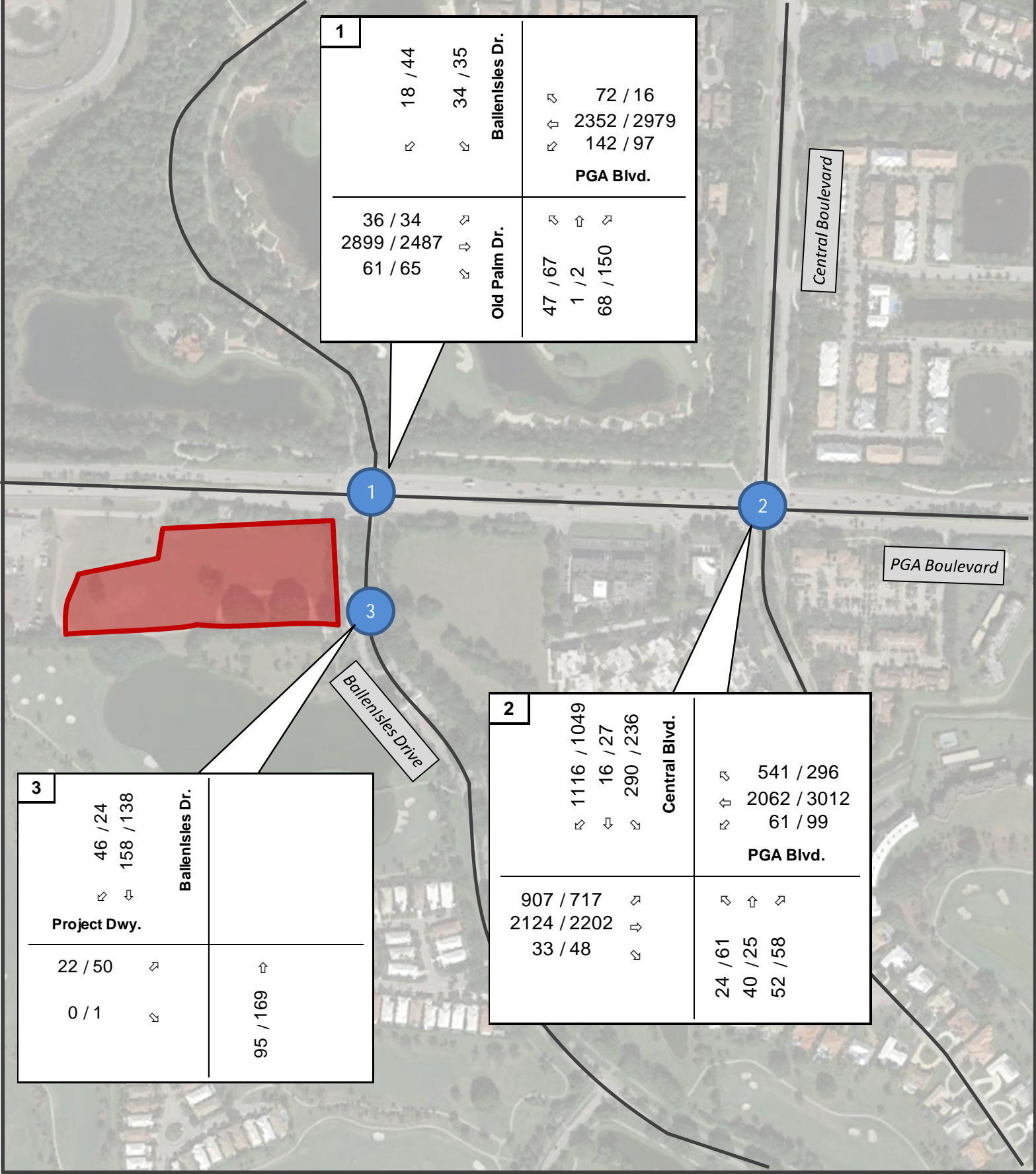
Note: Volumes at intersections 1 and 2 represent net new external trips. Volumes at intersection 3 represent driveway volumes.



- LEGEND**
- SITE LOCATION
 - TRAFFICWAYS EVALUATED
 - XX / XX AM TRIPS/PM TRIPS

FIGURE 5
BallenIsles West Parcel Mobility Study
KH #040828008
Project Traffic





| | |
|--|---------------------------------------|
| 1 | |
| 18 / 44 ↔ | 34 / 35 ↔ |
| BallenIsles Dr. | |
| ↔ 72 / 16 ↕ 2352 / 2979 ↔ 142 / 97 | |
| PGA Blvd. | |
| 36 / 34 2899 / 2487 61 / 65 | ↔ ↕ ↕ 47 / 67 1 / 2 68 / 150 |
| Old Palm Dr. | |

| | |
|---|--|
| 2 | |
| 1116 / 1049 ↔ | 16 / 27 ↔ |
| Central Blvd. | |
| ↔ 541 / 296 ↕ 2062 / 3012 ↔ 61 / 99 | |
| PGA Blvd. | |
| 907 / 717 2124 / 2202 33 / 48 | ↔ ↕ ↕ 24 / 61 40 / 25 52 / 58 |

| | |
|------------------------|----------------|
| 3 | |
| 46 / 24 ↔ | 158 / 138 ↔ |
| BallenIsles Dr. | |
| ↔ | |
| Project Dwy. | |
| 22 / 50 ↔ | ↔ |
| 0 / 1 ↔ | 95 / 169 ↔ |



LEGEND

- SITE LOCATION**
- TRAFFICWAYS EVALUATED**
- XX / XX** **AM TRIPS/PM TRIPS**

FIGURE 6
BallenIsles West Parcel Mobility Study
KH #040828008
Future Total (2026) Volumes



MOBILITY

The City of Palm Beach Gardens has developed a Mobility Plan and a corresponding Mobility Fee structure. The intent of the Mobility Plan is to build upon and expand the existing networks and facilities for all modes of transportation within the City of Palm Beach Gardens. As noted on Page i of the City’s Mobility Plan, it *“is a forward-looking and progressive approach to integrate land use and transportation improvements that provides people with the opportunity to safely, comfortably, and conveniently walk, bicycle, ride transit, drive or use new technology to move to and from homes, shops, schools and businesses.”* These improvements are designed to enhance choices and opportunities for travel among a variety of different modes of transportation and focus on the ability to move people from one location to another.

In the Mobility Plan, the City of Palm Beach Gardens has designated the area generally bounded by Military Trail, Atlantic Road, Prosperity Farms Road, and RCA Boulevard as the “Multimodal Mobility District” (MMD). The City envisions this area to eventually include a rail station, local transit circulators, bike rental stations, and numerous other multi-modal improvements. The Encompass Health site is outside of the area of the Multimodal Mobility District, and there are no future improvements are planned in this location that would impact the existing mobility functionality of the Encompass Health site.

MULTIMODAL QUALITY/LOS

As part of the new Land Development Regulations, a Quality of Service (QOS) analysis was conducted on the adjacent road network to determine the LOS for pedestrians, bikers, and bus riders. Methodology was used, as published in the Palm Beach Gardens Mobility Plan handbook to determine the LOS for each of the modes of multimodal transportation methods. The results of the QOS analysis are summarized in Table 6.

Table 6: QOS Analysis Summary

| Roadway | From | To | Number Of Lanes | Direction | Bike Lane Width (feet) | Level of Physical Separation | People Biking QOS | Path Width (feet) | Level of Physical Separation | People Walking & Biking QOS | People Riding in Trolley/Transit |
|-------------------|-------------------|-------------------|-----------------|-----------|------------------------|------------------------------|-------------------|-------------------|------------------------------|-----------------------------|----------------------------------|
| PGA Boulevard | Floridas Turnpike | Ballenisles Drive | 6LD | EB | 5 | Limited | C | 6 | Limited | E | - |
| | | | 6LD | WB | 5 | Limited | C | 6 | Limited | E | - |
| | Ballenisles Drive | Central Boulevard | 6LD | EB | 5 | Limited | C | 6 | Street Trees | D | - |
| | | | 6LD | WB | 5 | Limited | C | 12 | Street Trees | A | - |
| Ballenisles Drive | PGA Boulevard | Ballenisles Court | 2LD | NB | - | - | - | 8 | Street Trees | C | - |
| | | | 2LD | SB | - | - | - | 8 | Street Trees | C | - |
| Central Boulevard | PGA Boulevard | Tillinghast Way | 4LD | NB | - | - | - | 12 | Street Trees | A | - |
| | | | 4LD | SB | - | - | - | 6 | Street Trees | D | - |

Omitted values represent conditions which do not exist and therefore would result in QOS of F in these locations. The facilities which do not meet the QOS standards are as follows:

- Existing sidewalk on PGA Boulevard from Florida’s Turnpike to Ballenisles Drive
- No existing bike lanes on Ballenisles Drive or Central Boulevard
- The facilities analyzed are not served by trolley or transit services.

As shown in the revised site plan, an additional walking path along the site's frontage on PGA Boulevard is proposed. This path will connect to existing facilities and provide pedestrian access to the site and will be between 8 and 12 feet wide.

Both Central Boulevard and BallenIsles drive provide sidewalks to serve both pedestrians and bicyclists for these sections. The Applicant does not have control of any right-of-way on Central Boulevard and cannot feasibly provide bike lanes for this facility. Additionally, bike lanes cannot be provided along BallenIsles Drive because this would impact the existing landscaping to the BallenIsles entrance. Furthermore, the Applicant is proposing a southbound right-turn lane at the project entrance.

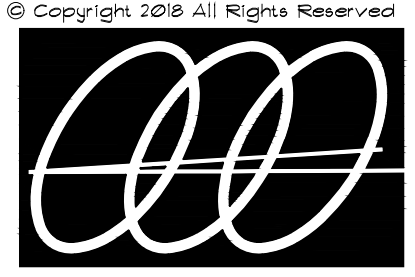
CONCLUSION

Kimley-Horn and Associates has prepared this traffic study to evaluate the impact of development for the project site located on the southwest corner of PGA Boulevard & BallenIsles Drive in the City of Palm Beach Gardens, Florida. The proposed plan of development includes the construction of a 76,319 square foot hospital and physical rehabilitation facility.

A site-specific analysis was undertaken to evaluate impacts on the surrounding transportation network. This analysis indicated that the deficiencies at the intersection of PGA Boulevard & Central Boulevard are background deficiencies and are not caused by the project traffic from the proposed site development.

It should be noted that the Applicant is proposing a southbound right-turn lane at the site driveway on BallenIsles Drive. This turn lane will better facilitate inbound turns into the project site and separate project traffic from BallenIsles traffic to minimize impacts to the existing traffic flow patterns. Additionally, the project is proposing median modifications at the driveway on BallenIsles Drive. These median modifications will impose a stop condition at the median so that vehicles turning left out of the project driveway will be required to do so in two stages and will be able to better see oncoming traffic. These improvements will improve safety and operations at the project driveway.

APPENDIX A: PROJECT SITE DATA



Gentile Glas
Holloway
O'Mahoney
& Associates, Inc.
Landscape Architects
Planners
Environmental Consultants

1907 Commerce Lane
Suite 101
Jupiter, Florida 33458
561-575-9557
561-575-5260 FAX
www.2GHO.com

Phase 2 Site Development Plan

Encompass Health

Palm Beach Gardens, Florida

Designed: GGG/BBP
Drawn: BBP
Approved: GGG/EOM/MBH
Date: 08/25/21
Job no: 20-0000
Revisions: 09/15/21
01/31/22

Scale: 1"=40'

LC 0000111
Sheet Title:

Phase 2 Site Development Plan

Scale: 1"=40'

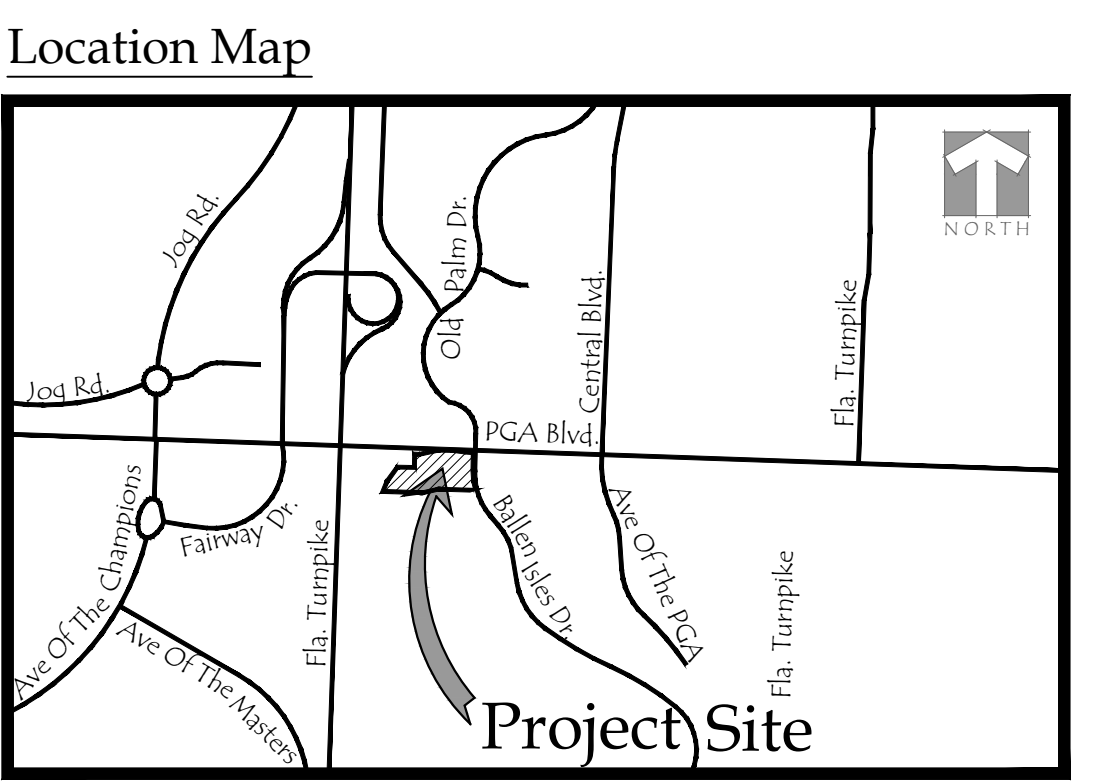
Sheet No.

SP-2

13-0000

Site Data

| | |
|----------------------------|--|
| Petition No. | CPSS-21-05-000015/PPUD-21-05-000062/ |
| Project Name | Encompass Health |
| Existing Future Land Use | RL- Residential Low |
| Proposed Future Land Use | P- Public |
| Existing Zoning | RL-3 - Residential Low - 3 Du's / Ac |
| Proposed Zoning | PUD - Planned Unit Development (with Underlying Public Institutional (PI) Zoning) |
| Section - Township - Range | 511-742-R42 |
| PCN # | 52-42-42-11-00-000-3120 |
| Total Site Area | 7.31 ac.; 318,460 s.f. |
| Existing Use | Vacant |



General Notes

ALL HANDICAP ACCESSIBLE RAMPS SHALL MEET ALL APPLICABLE LOCAL, REGIONAL, STATE, AND FEDERAL ACCESSIBILITY GUIDELINES AND REGULATIONS. ANY MODIFICATIONS SHALL BE PROVIDED BY THE ENGINEER OF RECORD.

ALL LIGHT POLES SHALL BE FIELD LOCATED SO AS TO AVOID CONFLICT WITH ANY EXISTING UTILITIES AND PROPOSED FOR EXISTING VEGETATION.

ALL ENTRIES AND SIDEWALKS SHALL BE LIGHTED BY A TIMER CLOCK OR PHOTOCELL SENSOR ENGAGED LIGHTING.

ALL STRIPING SHALL BE THERMOPLASTIC MATERIAL AS APPROVED BY THE CITY OF P.B.G. ALL PAVER AREAS REQUIRING STRIPING SHALL USE WHITE PAVER BRICK.

SIDEWALKS TO HAVE A FIBROUS EXPANSION JOINT @ 20' O.C.; ALL SIDEWALKS SHALL BE A MINIMUM OF 5' WIDTH.

ALL CURBS TO BE 12" CURB UNLESS OTHERWISE NOTED.

CURB RAMPS SHALL CONFORM TO F.D.O.T. INDEX 304 AND A.D.A. REQUIREMENTS FOR TRUNCATED DOME SURFACE.

HANDICAP PARKING SIGNS SHALL BE PLACED BEHIND THE SIDEWALK IN AREAS WHERE SIDEWALK ABUTS THE STALL AND OUTSIDE THE TWO AND A HALF (2-1/2) FOOT OVERHANG AREA WHERE WHEEL STOPS ARE NOT PROVIDED.

REGULATORY SIGNS, DIRECTIONAL SIGNS, PAVEMENT MARKINGS AND PEDESTRIAN CROSSWALKS ARE CONCEPTUAL ONLY AND WILL BE FINALIZED WITH CONSTRUCTION PLANS.

THE PROPOSED SITE SPECIFIC STORM WATER DRAINAGE SYSTEM IS CONCEPTUAL ONLY AND DETAILED PLANS & CALC. SHALL BE SUBMITTED BY THE APPLICANT FOR REVIEW AND BE APPROVED BY THE CITY OF P.B.G. DURING THE CONSTRUCTION REVIEW PROCESS.

REFER TO ARCHITECTURAL DRAWINGS FOR ALL BUILDING DETAILS FOR COLORS, TYPE AND MATERIALS.

Building Data

| | |
|--------------|--|
| Proposed Use | Private Hospital |
| Phase I | 55,445 s.f. |
| Phase II | 20,774 s.f. |
| | 76,219 s.f. Total (23.9% Lot Coverage) |

| Building Height | Required | Provided |
|-----------------|----------|----------------|
| PUD | 36' Max | 35'; 1 Stories |
| P/I | 45' Max | 35'; 1 Stories |

| Building Lot Coverage | Required | Provided |
|-----------------------|------------|----------|
| PUD | Set by PUD | 23.9% |
| P/I | 40% Max | 23.9% |

Building Setbacks

| | Required | Provided |
|---------------------------|-------------|----------|
| North (Front) PGA Overlay | 55' Overlay | 104.36' |
| South (Rear) P/I | 15' | 45.59' |
| East (Side Street) P/I | 15' | 51.6' |
| West (Side) P/I | 15' | 53' |

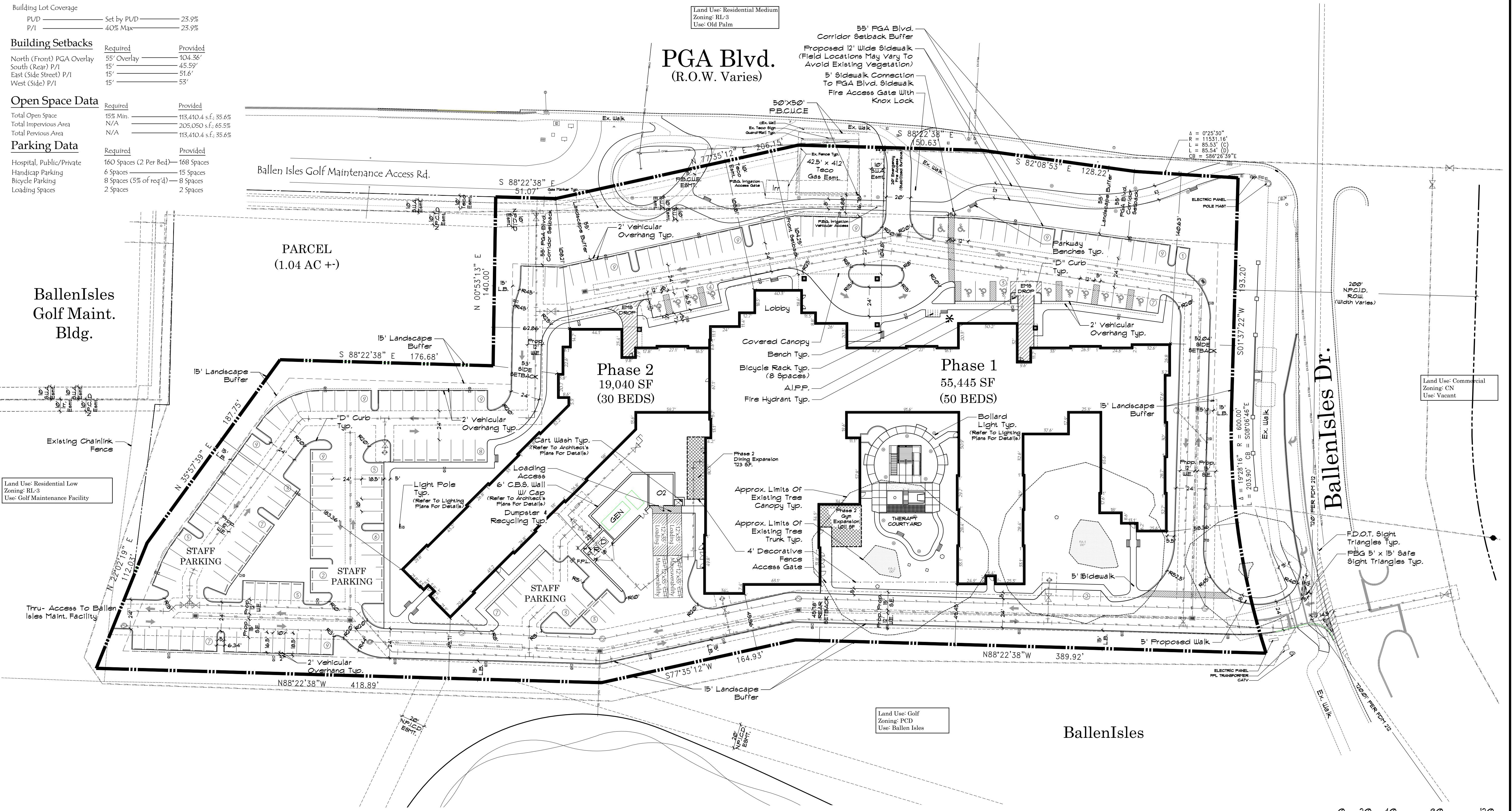
Open Space Data

| | Required | Provided |
|-----------------------|----------|-----------------------|
| Total Open Space | 15% Min. | 113,410.4 s.f.; 35.6% |
| Total Impervious Area | N/A | 205,050 s.f.; 65.5% |
| Total Pavement Area | N/A | 113,410.4 s.f.; 35.6% |

Parking Data

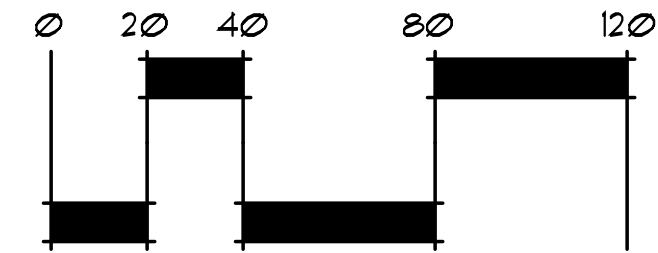
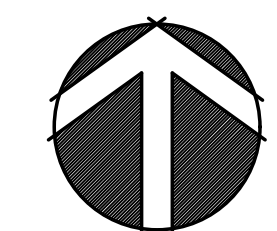
| | Required | Provided |
|--------------------------|------------------------|------------|
| Hospital, Public/Private | 160 Spaces (2 Per Bed) | 168 Spaces |
| Handicap Parking | 8 Spaces (5% of req'd) | 15 Spaces |
| Bicycle Parking | 8 Spaces (5% of req'd) | 8 Spaces |
| Loading Spaces | 2 Spaces | 2 Spaces |

BallenIsles
Golf Maint.
Bldg.



File: N:\BallenIsles West 10-0500\Drawings\Current\3rd Submission\Encompass Site Phase2.dwg
Plot File: 4/17/22 at 10:46am By: Ben
XREFs:

Draft



APPENDIX B: TRAFFIC VOLUME DATA

2019 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL
 CATEGORY: 9301 CEN.-W OF US1 TO SR7

| WEEK | DATES | SF | MOCF: 0.97 PSCF |
|------|-------------------------|------|--------------------|
| 1 | 01/01/2019 - 01/05/2019 | 1.00 | 1.03 |
| 2 | 01/06/2019 - 01/12/2019 | 1.00 | 1.03 |
| 3 | 01/13/2019 - 01/19/2019 | 1.00 | 1.03 |
| 4 | 01/20/2019 - 01/26/2019 | 0.99 | 1.02 |
| * 5 | 01/27/2019 - 02/02/2019 | 0.98 | 1.01 |
| * 6 | 02/03/2019 - 02/09/2019 | 0.97 | 1.00 |
| * 7 | 02/10/2019 - 02/16/2019 | 0.96 | 0.99 |
| * 8 | 02/17/2019 - 02/23/2019 | 0.96 | 0.99 |
| * 9 | 02/24/2019 - 03/02/2019 | 0.96 | 0.99 |
| *10 | 03/03/2019 - 03/09/2019 | 0.96 | 0.99 |
| *11 | 03/10/2019 - 03/16/2019 | 0.96 | 0.99 |
| *12 | 03/17/2019 - 03/23/2019 | 0.96 | 0.99 |
| *13 | 03/24/2019 - 03/30/2019 | 0.96 | 0.99 |
| *14 | 03/31/2019 - 04/06/2019 | 0.97 | 1.00 |
| *15 | 04/07/2019 - 04/13/2019 | 0.97 | 1.00 |
| *16 | 04/14/2019 - 04/20/2019 | 0.97 | 1.00 |
| *17 | 04/21/2019 - 04/27/2019 | 0.98 | 1.01 |
| 18 | 04/28/2019 - 05/04/2019 | 0.99 | 1.02 |
| 19 | 05/05/2019 - 05/11/2019 | 0.99 | 1.02 |
| 20 | 05/12/2019 - 05/18/2019 | 1.00 | 1.03 |
| 21 | 05/19/2019 - 05/25/2019 | 1.01 | 1.04 |
| 22 | 05/26/2019 - 06/01/2019 | 1.02 | 1.05 |
| 23 | 06/02/2019 - 06/08/2019 | 1.02 | 1.05 |
| 24 | 06/09/2019 - 06/15/2019 | 1.03 | 1.06 |
| 25 | 06/16/2019 - 06/22/2019 | 1.04 | 1.07 |
| 26 | 06/23/2019 - 06/29/2019 | 1.04 | 1.07 |
| 27 | 06/30/2019 - 07/06/2019 | 1.05 | 1.08 |
| 28 | 07/07/2019 - 07/13/2019 | 1.05 | 1.08 |
| 29 | 07/14/2019 - 07/20/2019 | 1.06 | 1.09 |
| 30 | 07/21/2019 - 07/27/2019 | 1.05 | 1.08 |
| 31 | 07/28/2019 - 08/03/2019 | 1.04 | 1.07 |
| 32 | 08/04/2019 - 08/10/2019 | 1.03 | 1.06 |
| 33 | 08/11/2019 - 08/17/2019 | 1.03 | 1.06 |
| 34 | 08/18/2019 - 08/24/2019 | 1.03 | 1.06 |
| 35 | 08/25/2019 - 08/31/2019 | 1.04 | 1.07 |
| 36 | 09/01/2019 - 09/07/2019 | 1.05 | 1.08 |
| 37 | 09/08/2019 - 09/14/2019 | 1.05 | 1.08 |
| 38 | 09/15/2019 - 09/21/2019 | 1.06 | 1.09 |
| 39 | 09/22/2019 - 09/28/2019 | 1.05 | 1.08 |
| 40 | 09/29/2019 - 10/05/2019 | 1.03 | 1.06 |
| 41 | 10/06/2019 - 10/12/2019 | 1.02 | 1.05 |
| 42 | 10/13/2019 - 10/19/2019 | 1.00 | 1.03 |
| 43 | 10/20/2019 - 10/26/2019 | 1.00 | 1.03 |
| 44 | 10/27/2019 - 11/02/2019 | 1.00 | 1.03 |
| 45 | 11/03/2019 - 11/09/2019 | 1.00 | 1.03 |
| 46 | 11/10/2019 - 11/16/2019 | 1.00 | 1.03 |
| 47 | 11/17/2019 - 11/23/2019 | 1.00 | 1.03 |
| 48 | 11/24/2019 - 11/30/2019 | 1.00 | 1.03 |
| 49 | 12/01/2019 - 12/07/2019 | 1.00 | 1.03 |
| 50 | 12/08/2019 - 12/14/2019 | 1.00 | 1.03 |
| 51 | 12/15/2019 - 12/21/2019 | 1.00 | 1.03 |
| 52 | 12/22/2019 - 12/28/2019 | 1.00 | 1.03 |
| 53 | 12/29/2019 - 12/31/2019 | 1.00 | 1.03 |

* PEAK SEASON

14-FEB-2020 15:39:27

830UPD

4_9301_PKSEASON.TXT

Traffic Survey Specialists, Inc.

85 SE 4th Avenue, Unit 109, Delray Beach, Florida 33483
Phone (561) 272-3255

DRIVEWAY SOUTH OF PGA & BALLEEN ISLES DR
PALM BEACH GARDENS, FLORIDA
VIDEO COUNT
NOT SIGNALIZED

File Name : maintenance & Ballen
Site Code : 210126
Start Date : 10/19/2021
Page No : 1

Groups Printed- REGULAR VEHICLES

| Start Time | BALLEN ISLES DRIVE From North | | | | DEAD END From East | | | | BALLEN ISLES DRIVE From South | | | | MAINTENANCE DRIVEWAY From West | | | | Int. Total |
|--------------------|----------------------------------|----------|------------|----------|-----------------------|----------|----------|----------|----------------------------------|----------|------------|----------|--------------------------------------|----------|----------|----------|------------|
| | UTurn | Left | Thru | Right | UTurn | Left | Thru | Right | UTurn | Left | Thru | Right | UTurn | Left | Thru | Right | |
| 07:00 AM | 0 | 0 | 9 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 20 |
| 07:15 AM | 0 | 0 | 11 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 0 | 0 | 0 | 0 | 0 | 25 |
| 07:30 AM | 0 | 0 | 15 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 9 | 0 | 0 | 0 | 0 | 1 | 27 |
| 07:45 AM | 2 | 0 | 42 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 52 |
| Total | 2 | 0 | 77 | 5 | 0 | 0 | 0 | 0 | 1 | 1 | 37 | 0 | 0 | 0 | 0 | 1 | 124 |
| | | | | | | | | | | | | | | | | | |
| 08:00 AM | 2 | 0 | 31 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 17 | 0 | 0 | 0 | 0 | 0 | 51 |
| 08:15 AM | 1 | 0 | 42 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 18 | 0 | 0 | 1 | 0 | 0 | 63 |
| 08:30 AM | 0 | 0 | 24 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 21 | 0 | 0 | 0 | 0 | 1 | 47 |
| 08:45 AM | 1 | 0 | 45 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 21 | 0 | 0 | 0 | 0 | 0 | 69 |
| Total | 4 | 0 | 142 | 2 | 0 | 0 | 0 | 0 | 2 | 1 | 77 | 0 | 0 | 1 | 0 | 1 | 230 |
| | | | | | | | | | | | | | | | | | |
| 04:00 PM | 0 | 0 | 32 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 40 | 0 | 0 | 0 | 0 | 0 | 73 |
| 04:15 PM | 0 | 0 | 40 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 23 | 0 | 0 | 0 | 0 | 0 | 63 |
| 04:30 PM | 0 | 0 | 24 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 46 | 0 | 0 | 1 | 0 | 0 | 72 |
| 04:45 PM | 0 | 0 | 31 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 26 | 0 | 0 | 0 | 0 | 0 | 57 |
| Total | 0 | 0 | 127 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 135 | 0 | 0 | 1 | 0 | 0 | 265 |
| | | | | | | | | | | | | | | | | | |
| 05:00 PM | 0 | 0 | 23 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 33 | 0 | 0 | 0 | 0 | 0 | 56 |
| 05:15 PM | 0 | 0 | 22 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 21 | 0 | 0 | 0 | 0 | 0 | 43 |
| 05:30 PM | 0 | 0 | 17 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 47 |
| 05:45 PM | 1 | 0 | 18 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 28 | 0 | 0 | 0 | 0 | 0 | 47 |
| Total | 1 | 0 | 80 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 112 | 0 | 0 | 0 | 0 | 0 | 193 |
| | | | | | | | | | | | | | | | | | |
| Grand Total | 7 | 0 | 426 | 9 | 0 | 0 | 0 | 0 | 3 | 2 | 361 | 0 | 0 | 2 | 0 | 2 | 812 |
| Apprch % | 1.6 | 0 | 96.4 | 2 | 0 | 0 | 0 | 0 | 0.8 | 0.5 | 98.6 | 0 | 0 | 50 | 0 | 50 | |
| Total % | 0.9 | 0 | 52.5 | 1.1 | 0 | 0 | 0 | 0 | 0.4 | 0.2 | 44.5 | 0 | 0 | 0.2 | 0 | 0.2 | |

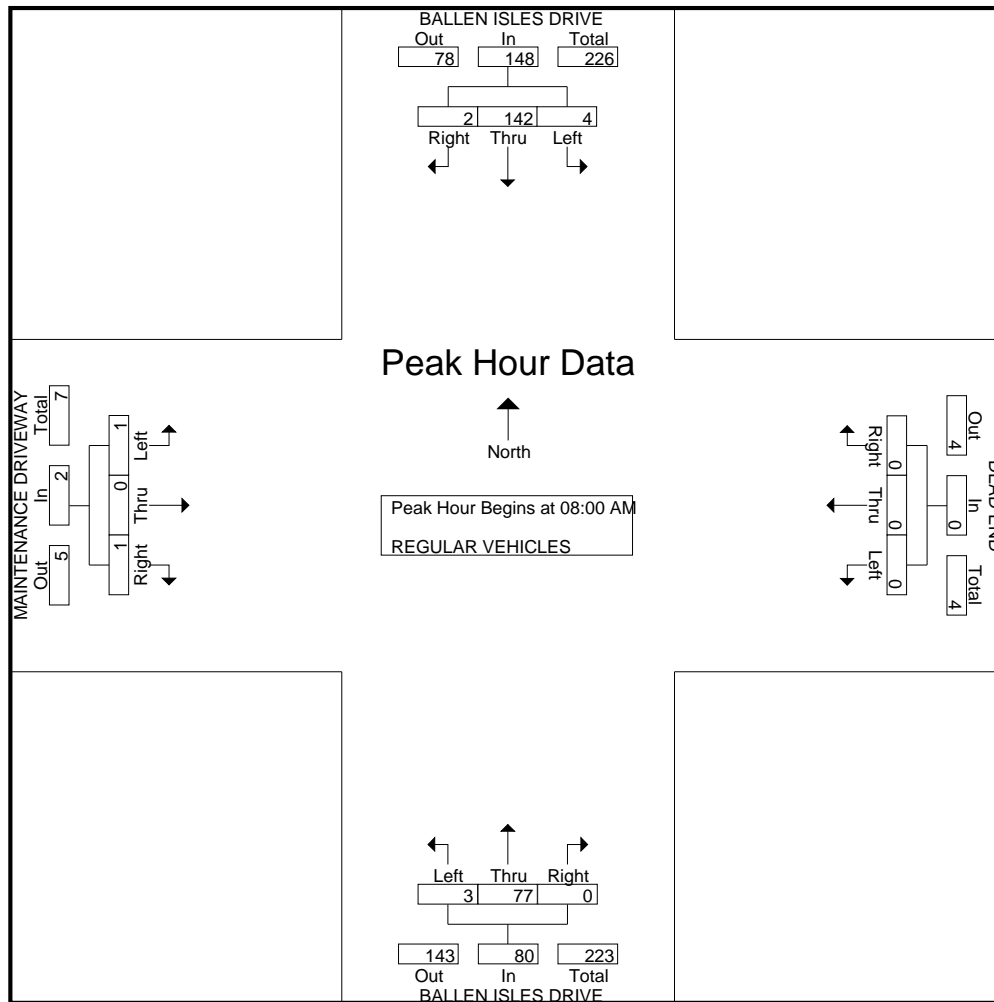
Traffic Survey Specialists, Inc.

85 SE 4th Avenue, Unit 109, Delray Beach, Florida 33483
Phone (561) 272-3255

DRIVEWAY SOUTH OF PGA & BALLEEN ISLES DR
PALM BEACH GARDENS, FLORIDA
VIDEO COUNT
NOT SIGNALIZED

File Name : maintenance & Ballen
Site Code : 210126
Start Date : 10/19/2021
Page No : 2

| Start Time | BALLEEN ISLES DRIVE From North | | | | | DEAD END From East | | | | | BALLEEN ISLES DRIVE From South | | | | | MAINTENANCE DRIVEWAY From West | | | | | Int. Total |
|--|-----------------------------------|------|------|-------|------------|-----------------------|------|------|-------|------------|-----------------------------------|------|------|-------|------------|-----------------------------------|------|------|-------|------------|------------|
| | UTurn | Left | Thru | Right | App. Total | UTurn | Left | Thru | Right | App. Total | UTurn | Left | Thru | Right | App. Total | UTurn | Left | Thru | Right | App. Total | |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 08:00 AM | | | | | | | | | | | | | | | | | | | | | |
| 08:00 AM | 2 | 0 | 31 | 1 | 34 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 17 | 0 | 17 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08:15 AM | 1 | 0 | 42 | 0 | 43 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 18 | 0 | 19 | 0 | 1 | 0 | 0 | 0 | 1 |
| 08:30 AM | 0 | 0 | 24 | 1 | 25 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 21 | 0 | 21 | 0 | 0 | 0 | 1 | 1 | 1 |
| 08:45 AM | 1 | 0 | 45 | 0 | 46 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 21 | 0 | 23 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Volume | 4 | 0 | 142 | 2 | 148 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 77 | 0 | 80 | 0 | 1 | 0 | 1 | 1 | 2 |
| % App. Total | 2.7 | 0 | 95.9 | 1.4 | | | | | | | 2.5 | 1.2 | 96.2 | 0 | | 0 | 50 | 0 | 50 | | |
| PHF | .500 | .000 | .789 | .500 | .804 | .000 | .000 | .000 | .000 | .000 | .250 | .250 | .917 | .000 | .870 | .000 | .250 | .000 | .250 | .500 | .833 |



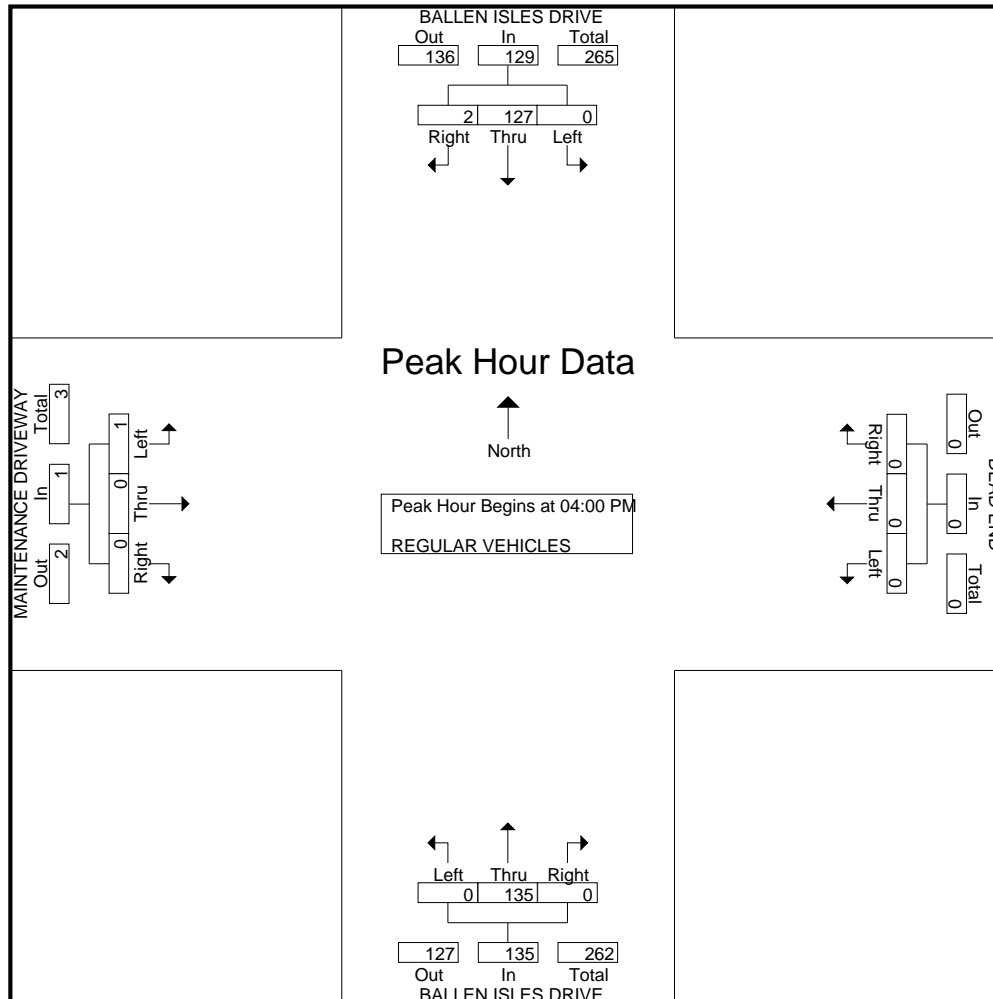
Traffic Survey Specialists, Inc.

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Phone (561) 272-3255

DRIVEWAY SOUTH OF PGA & BALLEEN ISLES DR
PALM BEACH GARDENS, FLORIDA
VIDEO COUNT
NOT SIGNALIZED

File Name : maintenance & Ballen
Site Code : 210126
Start Date : 10/19/2021
Page No : 3

| Start Time | BALLEEN ISLES DRIVE From North | | | | | DEAD END From East | | | | | BALLEEN ISLES DRIVE From South | | | | | MAINTENANCE DRIVEWAY From West | | | | | Int. Total | |
|--|--------------------------------|------|------|-------|------------|--------------------|------|------|-------|------------|--------------------------------|------|------|-------|------------|--------------------------------|------|------|-------|------------|------------|------|
| | UTurn | Left | Thru | Right | App. Total | UTurn | Left | Thru | Right | App. Total | UTurn | Left | Thru | Right | App. Total | UTurn | Left | Thru | Right | App. Total | | |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:00 PM | | | | | | | | | | | | | | | | | | | | | | |
| 04:00 PM | 0 | 0 | 32 | 1 | 33 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 40 | 0 | 40 | 0 | 0 | 0 | 0 | 0 | 0 | 73 |
| 04:15 PM | 0 | 0 | 40 | 0 | 40 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 23 | 0 | 23 | 0 | 0 | 0 | 0 | 0 | 0 | 63 |
| 04:30 PM | 0 | 0 | 24 | 1 | 25 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 46 | 0 | 46 | 0 | 1 | 0 | 0 | 0 | 1 | 72 |
| 04:45 PM | 0 | 0 | 31 | 0 | 31 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 26 | 0 | 26 | 0 | 0 | 0 | 0 | 0 | 0 | 57 |
| Total Volume | 0 | 0 | 127 | 2 | 129 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 135 | 0 | 135 | 0 | 1 | 0 | 0 | 0 | 1 | 265 |
| % App. Total | 0 | 0 | 98.4 | 1.6 | | 0 | 0 | 0 | 0 | | 0 | 0 | 100 | 0 | | 0 | 100 | 0 | 0 | | | |
| PHF | .000 | .000 | .794 | .500 | .806 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .734 | .000 | .734 | .000 | .250 | .000 | .000 | .250 | | .908 |



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DRIVEWAY SOUTH OF PGA & BALLEEN ISLES DR
PALM BEACH GARDENS, FLORIDA
VIDEO COUNT
NOT SIGNALIZED

File Name : maintenance & Ballen
Site Code : 210126
Start Date : 10/19/2021
Page No : 1

Groups Printed- UTILITY VEHICLES & GOLF CARTS

| Start Time | BALLEN ISLES DRIVE From North | | | | DEAD END From East | | | | BALLEN ISLES DRIVE From South | | | | MAINTENANCE DRIVEWAY From West | | | | Int. Total | |
|-------------|----------------------------------|------|------|-------|-----------------------|------|------|-------|----------------------------------|------|------|-------|--------------------------------------|------|------|-------|------------|----|
| | UTurn | Left | Thru | Right | UTurn | Left | Thru | Right | UTurn | Left | Thru | Right | UTurn | Left | Thru | Right | | |
| 07:00 AM | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 8 | 12 |
| 07:15 AM | 3 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 4 | 1 | 3 | 0 | 0 | 0 | 0 | 0 | 5 | 20 |
| 07:30 AM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 |
| 07:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Total | 5 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 6 | 1 | 3 | 0 | 0 | 1 | 0 | 14 | 36 | |
| | | | | | | | | | | | | | | | | | | |
| 08:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 08:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 |
| | | | | | | | | | | | | | | | | | | |
| 04:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | | | | | | | | | | | | | | | | | | |
| Grand Total | 5 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 6 | 3 | 3 | 0 | 0 | 1 | 0 | 15 | 39 | |
| Apprch % | 45.5 | 0 | 54.5 | 0 | 0 | 0 | 0 | 0 | 50 | 25 | 25 | 0 | 0 | 6.2 | 0 | 93.8 | | |
| Total % | 12.8 | 0 | 15.4 | 0 | 0 | 0 | 0 | 0 | 15.4 | 7.7 | 7.7 | 0 | 0 | 2.6 | 0 | 38.5 | | |

Traffic Survey Specialists, Inc.

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DRIVEWAY SOUTH OF PGA & BALLEEN ISLES DR
PALM BEACH GARDENS, FLORIDA
VIDEO COUNT
NOT SIGNALIZED

File Name : maintenance & Ballen
Site Code : 210126
Start Date : 10/19/2021
Page No : 1

Groups Printed- BICYCLES ON THE ROAD

| Start Time | BALLEN ISLES DRIVE From North | | | | DEAD END From East | | | | BALLEN ISLES DRIVE From South | | | | MAINTENANCE DRIVEWAY From West | | | | Int. Total | |
|-------------|----------------------------------|------|------|-------|-----------------------|------|------|-------|----------------------------------|------|------|-------|--------------------------------------|------|------|-------|------------|---|
| | UTurn | Left | Thru | Right | UTurn | Left | Thru | Right | UTurn | Left | Thru | Right | UTurn | Left | Thru | Right | | |
| 07:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Grand Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Apprch % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | |
| Total % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | |

Traffic Survey Specialists, Inc.

85 SE 4th Avenue, Unit 109, Delray Beach, Florida 33483
Phone (561) 272-3255

DRIVEWAY SOUTH OF PGA & BALLEEN ISLES DR
PALM BEACH GARDENS, FLORIDA
VIDEO COUNT
NOT SIGNALIZED

File Name : maintenance & Ballen
Site Code : 210126
Start Date : 10/19/2021
Page No : 1

Groups Printed- PEDESTRIANS & BIKES

| Start Time | BALLEN ISLES DRIVE From North | | | | DEAD END From East | | | | BALLEN ISLES DRIVE From South | | | | MAINTENANCE DRIVEWAY From West | | | | Int. Total |
|-------------|----------------------------------|------|-------|-------|-----------------------|------|-------|-------|----------------------------------|------|-------|-------|--------------------------------------|------|-------|-------|------------|
| | Peds | Left | BIKES | Right | Peds | Left | BIKES | Right | Peds | Left | BIKES | Right | Peds | Left | BIKES | Right | |
| 07:45 AM | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 3 |
| Total | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 3 |
| 08:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 08:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 08:45 AM | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Total | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 05:15 PM | 0 | 0 | 2 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 |
| Total | 0 | 0 | 2 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 |
| Grand Total | 2 | 0 | 2 | 0 | 1 | 0 | 5 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 12 |
| Apprch % | 50 | 0 | 50 | 0 | 16.7 | 0 | 83.3 | 0 | 100 | 0 | 0 | 0 | 100 | 0 | 0 | 0 | |
| Total % | 16.7 | 0 | 16.7 | 0 | 8.3 | 0 | 41.7 | 0 | 8.3 | 0 | 0 | 0 | 8.3 | 0 | 0 | 0 | |

Traffic Survey Specialists, Inc. Daily Vehicle Volume Report

Study Date: Thursday, 10/21/2021

Unit ID:

Location: Maintenance Driveway West of Ballen Isles Drive

Comments: Palm Beach Gardens, Florida

| | Eastbound Volume | Westbound Volume | Total Volume |
|---------------|---------------------|---------------------|-----------------|
| 00:00 - 00:14 | 0 | 0 | 0 |
| 00:15 - 00:29 | 0 | 0 | 0 |
| 00:30 - 00:44 | 0 | 0 | 0 |
| 00:45 - 00:59 | 0 | 0 | 0 |
| 01:00 - 01:14 | 0 | 0 | 0 |
| 01:15 - 01:29 | 0 | 0 | 0 |
| 01:30 - 01:44 | 0 | 0 | 0 |
| 01:45 - 01:59 | 0 | 0 | 0 |
| 02:00 - 02:14 | 0 | 0 | 0 |
| 02:15 - 02:29 | 0 | 0 | 0 |
| 02:30 - 02:44 | 0 | 0 | 0 |
| 02:45 - 02:59 | 0 | 0 | 0 |
| 03:00 - 03:14 | 0 | 0 | 0 |
| 03:15 - 03:29 | 0 | 0 | 0 |
| 03:30 - 03:44 | 0 | 0 | 0 |
| 03:45 - 03:59 | 0 | 0 | 0 |
| 04:00 - 04:14 | 0 | 0 | 0 |
| 04:15 - 04:29 | 0 | 0 | 0 |
| 04:30 - 04:44 | 0 | 0 | 0 |
| 04:45 - 04:59 | 0 | 0 | 0 |
| 05:00 - 05:14 | 0 | 0 | 0 |
| 05:15 - 05:29 | 0 | 0 | 0 |
| 05:30 - 05:44 | 0 | 0 | 0 |
| 05:45 - 05:59 | 0 | 0 | 0 |
| 06:00 - 06:14 | 0 | 0 | 0 |
| 06:15 - 06:29 | 0 | 0 | 0 |
| 06:30 - 06:44 | 0 | 1 | 1 |
| 06:45 - 06:59 | 0 | 12 | 12 |
| 07:00 - 07:14 | 11 | 3 | 14 |
| 07:15 - 07:29 | 2 | 1 | 3 |
| 07:30 - 07:44 | 1 | 2 | 3 |
| 07:45 - 07:59 | 0 | 0 | 0 |
| 08:00 - 08:14 | 0 | 0 | 0 |
| 08:15 - 08:29 | 0 | 2 | 2 |
| 08:30 - 08:44 | 1 | 0 | 1 |
| 08:45 - 08:59 | 0 | 0 | 0 |
| 09:00 - 09:14 | 2 | 2 | 4 |
| 09:15 - 09:29 | 1 | 0 | 1 |
| 09:30 - 09:44 | 1 | 1 | 2 |
| 09:45 - 09:59 | 1 | 0 | 1 |
| 10:00 - 10:14 | 0 | 2 | 2 |
| 10:15 - 10:29 | 1 | 0 | 1 |
| 10:30 - 10:44 | 0 | 1 | 1 |
| 10:45 - 10:59 | 0 | 1 | 1 |
| 11:00 - 11:14 | 1 | 0 | 1 |
| 11:15 - 11:29 | 0 | 0 | 0 |
| 11:30 - 11:44 | 0 | 0 | 0 |
| 11:45 - 11:59 | 0 | 3 | 3 |
| 12:00 - 12:14 | 0 | 1 | 1 |
| 12:15 - 12:29 | 0 | 1 | 1 |
| 12:30 - 12:44 | 1 | 0 | 1 |
| 12:45 - 12:59 | 1 | 1 | 2 |

Traffic Survey Specialists, Inc. Daily Vehicle Volume Report

Study Date: Thursday, 10/21/2021

Unit ID:

Location: Maintenance Driveway West of Ballen Isles Drive

Comments: Palm Beach Gardens, Florida

| | Eastbound Volume | Westbound Volume | Total Volume |
|-----------------------|----------------------|----------------------|----------------------|
| 13:00 - 13:14 | 0 | 0 | 0 |
| 13:15 - 13:29 | 0 | 0 | 0 |
| 13:30 - 13:44 | 0 | 1 | 1 |
| 13:45 - 13:59 | 1 | 2 | 3 |
| 14:00 - 14:14 | 1 | 1 | 2 |
| 14:15 - 14:29 | 0 | 0 | 0 |
| 14:30 - 14:44 | 0 | 1 | 1 |
| 14:45 - 14:59 | 0 | 2 | 2 |
| 15:00 - 15:14 | 0 | 2 | 2 |
| 15:15 - 15:29 | 0 | 9 | 9 |
| 15:30 - 15:44 | 0 | 1 | 1 |
| 15:45 - 15:59 | 0 | 1 | 1 |
| 16:00 - 16:14 | 0 | 1 | 1 |
| 16:15 - 16:29 | 0 | 0 | 0 |
| 16:30 - 16:44 | 0 | 0 | 0 |
| 16:45 - 16:59 | 0 | 0 | 0 |
| 17:00 - 17:14 | 0 | 0 | 0 |
| 17:15 - 17:29 | 0 | 0 | 0 |
| 17:30 - 17:44 | 0 | 0 | 0 |
| 17:45 - 17:59 | 0 | 0 | 0 |
| 18:00 - 18:14 | 0 | 0 | 0 |
| 18:15 - 18:29 | 0 | 0 | 0 |
| 18:30 - 18:44 | 0 | 0 | 0 |
| 18:45 - 18:59 | 0 | 0 | 0 |
| 19:00 - 19:14 | 0 | 0 | 0 |
| 19:15 - 19:29 | 0 | 0 | 0 |
| 19:30 - 19:44 | 0 | 0 | 0 |
| 19:45 - 19:59 | 0 | 0 | 0 |
| 20:00 - 20:14 | 0 | 0 | 0 |
| 20:15 - 20:29 | 0 | 0 | 0 |
| 20:30 - 20:44 | 0 | 0 | 0 |
| 20:45 - 20:59 | 0 | 0 | 0 |
| 21:00 - 21:14 | 0 | 0 | 0 |
| 21:15 - 21:29 | 0 | 0 | 0 |
| 21:30 - 21:44 | 0 | 0 | 0 |
| 21:45 - 21:59 | 0 | 0 | 0 |
| 22:00 - 22:14 | 0 | 0 | 0 |
| 22:15 - 22:29 | 0 | 0 | 0 |
| 22:30 - 22:44 | 0 | 0 | 0 |
| 22:45 - 22:59 | 0 | 0 | 0 |
| 23:00 - 23:14 | 0 | 0 | 0 |
| 23:15 - 23:29 | 0 | 0 | 0 |
| 23:30 - 23:44 | 0 | 0 | 0 |
| 23:45 - 23:59 | 0 | 0 | 0 |
| Totals | 26 | 55 | 81 |
| AM Peak Time | 06:35 - 07:34 | 06:39 - 07:38 | 06:39 - 07:38 |
| AM Peak Volume | 14 | 19 | 33 |
| PM Peak Time | 12:00 - 12:59 | 14:38 - 15:37 | 14:38 - 15:37 |
| PM Peak Volume | 2 | 15 | 15 |

Traffic Survey Specialists, Inc. Daily Vehicle Volume Report

Study Date: Thursday, 10/21/2021

Unit ID:

Location: Maintenance Driveway South of PGA Boulevard

Comments: Palm Beach Gardens, Florida

| | Northbound Volume | Southbound Volume | Total Volume |
|---------------|----------------------|----------------------|-----------------|
| 00:00 - 00:14 | 0 | 0 | 0 |
| 00:15 - 00:29 | 0 | 0 | 0 |
| 00:30 - 00:44 | 0 | 0 | 0 |
| 00:45 - 00:59 | 0 | 0 | 0 |
| 01:00 - 01:14 | 0 | 0 | 0 |
| 01:15 - 01:29 | 0 | 0 | 0 |
| 01:30 - 01:44 | 0 | 1 | 1 |
| 01:45 - 01:59 | 1 | 0 | 1 |
| 02:00 - 02:14 | 0 | 0 | 0 |
| 02:15 - 02:29 | 0 | 0 | 0 |
| 02:30 - 02:44 | 0 | 0 | 0 |
| 02:45 - 02:59 | 0 | 0 | 0 |
| 03:00 - 03:14 | 0 | 0 | 0 |
| 03:15 - 03:29 | 0 | 0 | 0 |
| 03:30 - 03:44 | 1 | 0 | 1 |
| 03:45 - 03:59 | 0 | 0 | 0 |
| 04:00 - 04:14 | 0 | 2 | 2 |
| 04:15 - 04:29 | 1 | 0 | 1 |
| 04:30 - 04:44 | 0 | 1 | 1 |
| 04:45 - 04:59 | 1 | 0 | 1 |
| 05:00 - 05:14 | 0 | 0 | 0 |
| 05:15 - 05:29 | 1 | 0 | 1 |
| 05:30 - 05:44 | 0 | 1 | 1 |
| 05:45 - 05:59 | 0 | 2 | 2 |
| 06:00 - 06:14 | 0 | 1 | 1 |
| 06:15 - 06:29 | 0 | 1 | 1 |
| 06:30 - 06:44 | 0 | 4 | 4 |
| 06:45 - 06:59 | 0 | 4 | 4 |
| 07:00 - 07:14 | 4 | 2 | 6 |
| 07:15 - 07:29 | 1 | 4 | 5 |
| 07:30 - 07:44 | 4 | 1 | 5 |
| 07:45 - 07:59 | 2 | 2 | 4 |
| 08:00 - 08:14 | 3 | 1 | 4 |
| 08:15 - 08:29 | 1 | 0 | 1 |
| 08:30 - 08:44 | 1 | 1 | 2 |
| 08:45 - 08:59 | 3 | 1 | 4 |
| 09:00 - 09:14 | 1 | 3 | 4 |
| 09:15 - 09:29 | 0 | 0 | 0 |
| 09:30 - 09:44 | 1 | 1 | 2 |
| 09:45 - 09:59 | 0 | 1 | 1 |
| 10:00 - 10:14 | 1 | 1 | 2 |
| 10:15 - 10:29 | 1 | 2 | 3 |
| 10:30 - 10:44 | 1 | 0 | 1 |
| 10:45 - 10:59 | 0 | 0 | 0 |
| 11:00 - 11:14 | 0 | 1 | 1 |
| 11:15 - 11:29 | 2 | 1 | 3 |
| 11:30 - 11:44 | 0 | 0 | 0 |
| 11:45 - 11:59 | 3 | 2 | 5 |
| 12:00 - 12:14 | 1 | 1 | 2 |
| 12:15 - 12:29 | 1 | 1 | 2 |
| 12:30 - 12:44 | 0 | 0 | 0 |
| 12:45 - 12:59 | 1 | 3 | 4 |

Traffic Survey Specialists, Inc. Daily Vehicle Volume Report

Study Date: Thursday, 10/21/2021

Unit ID:

Location: Maintenance Driveway South of PGA Boulevard

Comments: Palm Beach Gardens, Florida

| | Northbound Volume | Southbound Volume | Total Volume |
|-----------------------|----------------------|----------------------|----------------------|
| 13:00 - 13:14 | 2 | 0 | 2 |
| 13:15 - 13:29 | 0 | 0 | 0 |
| 13:30 - 13:44 | 0 | 0 | 0 |
| 13:45 - 13:59 | 2 | 1 | 3 |
| 14:00 - 14:14 | 4 | 2 | 6 |
| 14:15 - 14:29 | 3 | 0 | 3 |
| 14:30 - 14:44 | 1 | 0 | 1 |
| 14:45 - 14:59 | 0 | 0 | 0 |
| 15:00 - 15:14 | 0 | 0 | 0 |
| 15:15 - 15:29 | 5 | 1 | 6 |
| 15:30 - 15:44 | 15 | 1 | 16 |
| 15:45 - 15:59 | 1 | 0 | 1 |
| 16:00 - 16:14 | 2 | 2 | 4 |
| 16:15 - 16:29 | 7 | 1 | 8 |
| 16:30 - 16:44 | 1 | 4 | 5 |
| 16:45 - 16:59 | 1 | 1 | 2 |
| 17:00 - 17:14 | 4 | 0 | 4 |
| 17:15 - 17:29 | 0 | 0 | 0 |
| 17:30 - 17:44 | 0 | 1 | 1 |
| 17:45 - 17:59 | 0 | 2 | 2 |
| 18:00 - 18:14 | 2 | 1 | 3 |
| 18:15 - 18:29 | 0 | 0 | 0 |
| 18:30 - 18:44 | 0 | 0 | 0 |
| 18:45 - 18:59 | 1 | 0 | 1 |
| 19:00 - 19:14 | 0 | 0 | 0 |
| 19:15 - 19:29 | 0 | 0 | 0 |
| 19:30 - 19:44 | 0 | 0 | 0 |
| 19:45 - 19:59 | 0 | 0 | 0 |
| 20:00 - 20:14 | 0 | 0 | 0 |
| 20:15 - 20:29 | 0 | 1 | 1 |
| 20:30 - 20:44 | 0 | 0 | 0 |
| 20:45 - 20:59 | 1 | 0 | 1 |
| 21:00 - 21:14 | 0 | 0 | 0 |
| 21:15 - 21:29 | 0 | 0 | 0 |
| 21:30 - 21:44 | 0 | 0 | 0 |
| 21:45 - 21:59 | 0 | 0 | 0 |
| 22:00 - 22:14 | 0 | 0 | 0 |
| 22:15 - 22:29 | 0 | 0 | 0 |
| 22:30 - 22:44 | 0 | 2 | 2 |
| 22:45 - 22:59 | 0 | 0 | 0 |
| 23:00 - 23:14 | 2 | 0 | 2 |
| 23:15 - 23:29 | 1 | 0 | 1 |
| 23:30 - 23:44 | 0 | 0 | 0 |
| 23:45 - 23:59 | 0 | 0 | 0 |
| Totals | 92 | 66 | 158 |
| AM Peak Time | 06:52 - 07:51 | 06:31 - 07:30 | 06:40 - 07:39 |
| AM Peak Volume | 11 | 15 | 22 |
| PM Peak Time | 15:23 - 16:22 | 15:47 - 16:46 | 15:23 - 16:22 |
| PM Peak Volume | 28 | 8 | 33 |

| SIGNAL ID | E-W STREET | N-S STREET | DATE | TIME | NBU | NBL | NBT | NBR | SBU | SBL | SBT | SBR | EBU | EBL | EBT | EBR | WBU | WBL | WBT | WBR | TOTAL |
|-----------|--------------|-------------------------|------------|----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|-----|-----|-----|------|-----|-------|
| 24101 | Persimmon Bl | Seminole Pratt Whitne | 2/4/2020 | 2:30 PM | 2 | 0 | 760 | 81 | 23 | 46 | 655 | 5 | 0 | 2 | 1 | 2 | 0 | 84 | 1 | 21 | 1683 |
| 24101 | Persimmon Bl | Seminole Pratt Whitne | 2/4/2020 | 5:00 PM | 0 | 0 | 966 | 58 | 21 | 62 | 801 | 0 | 0 | 1 | 0 | 2 | 0 | 74 | 0 | 27 | 2012 |
| 27657 | Persimmon Bl | SR 7 | 3/8/2017 | 7:00 AM | 0 | 73 | 112 | 0 | 0 | 0 | 651 | 0 | 0 | 0 | 0 | 392 | 0 | 0 | 0 | 0 | 1228 |
| 27657 | Persimmon Bl | SR 7 | 3/8/2017 | 12:00 PM | 0 | 72 | 191 | 0 | 0 | 0 | 200 | 3 | 0 | 0 | 0 | 90 | 0 | 0 | 0 | 0 | 556 |
| 27657 | Persimmon Bl | SR 7 | 3/8/2017 | 5:00 PM | 0 | 299 | 555 | 0 | 0 | 0 | 292 | 2 | 0 | 1 | 0 | 150 | 0 | 0 | 0 | 0 | 1299 |
| 14280 | PGA Bl | Ave of the Champions | 1/30/2019 | 7:30 AM | 0 | 15 | 88 | 36 | 0 | 416 | 85 | 29 | 2 | 63 | 360 | 14 | 48 | 322 | 364 | 338 | 2180 |
| 14280 | PGA Bl | Ave of the Champions | 1/30/2019 | 12:00 PM | 0 | 8 | 124 | 70 | 0 | 283 | 116 | 33 | 1 | 48 | 318 | 25 | 66 | 277 | 310 | 227 | 1906 |
| 14280 | PGA Bl | Ave of the Champions | 1/30/2019 | 5:00 PM | 0 | 18 | 105 | 91 | 0 | 404 | 122 | 53 | 1 | 51 | 449 | 11 | 76 | 273 | 469 | 377 | 2500 |
| 14280 | PGA Bl | Ave of the Champions | 4/25/2018 | 7:30 AM | 1 | 11 | 83 | 25 | 1 | 523 | 112 | 29 | 1 | 67 | 357 | 12 | 79 | 377 | 334 | 336 | 2348 |
| 14280 | PGA Bl | Ave of the Champions | 4/25/2018 | 11:45 AM | 0 | 7 | 116 | 70 | 1 | 363 | 85 | 25 | 0 | 51 | 352 | 5 | 56 | 201 | 282 | 228 | 1842 |
| 14280 | PGA Bl | Ave of the Champions | 4/25/2018 | 5:00 PM | 1 | 11 | 96 | 79 | 0 | 403 | 108 | 45 | 0 | 54 | 426 | 13 | 77 | 367 | 446 | 342 | 2468 |
| 14280 | PGA Bl | Ave of the Champions | 4/9/2015 | 7:45 AM | 1 | 5 | 69 | 19 | 0 | 423 | 74 | 42 | 1 | 69 | 389 | 32 | 107 | 309 | 428 | 311 | 2279 |
| 14280 | PGA Bl | Ave of the Champions | 4/9/2015 | 5:00 PM | 1 | 15 | 73 | 49 | 0 | 354 | 113 | 38 | 0 | 78 | 497 | 14 | 110 | 249 | 487 | 314 | 2392 |
| 14305 | PGA Bl | Ballensles Dr | 4/25/2018 | 7:30 AM | 0 | 36 | 1 | 42 | 0 | 28 | 0 | 15 | 3 | 27 | 2181 | 44 | 1 | 85 | 1753 | 59 | 4275 |
| 14305 | PGA Bl | Ballensles Dr | 4/25/2018 | 12:00 PM | 0 | 58 | 0 | 98 | 0 | 52 | 4 | 13 | 11 | 26 | 1352 | 55 | 2 | 72 | 1232 | 42 | 3017 |
| 14305 | PGA Bl | Ballensles Dr | 4/25/2018 | 4:45 PM | 0 | 49 | 2 | 89 | 0 | 29 | 0 | 36 | 17 | 11 | 1800 | 50 | 0 | 64 | 2219 | 13 | 4379 |
| 14305 | PGA Bl | Ballensles Dr | 4/8/2015 | 7:30 AM | 0 | 25 | 0 | 44 | 0 | 18 | 0 | 14 | 1 | 10 | 2323 | 29 | 3 | 72 | 1676 | 11 | 4226 |
| 14305 | PGA Bl | Ballensles Dr | 4/8/2015 | 4:45 PM | 0 | 50 | 0 | 110 | 0 | 34 | 0 | 22 | 0 | 9 | 1947 | 42 | 1 | 91 | 2062 | 29 | 4397 |
| 14100 | PGA Bl | Beeline Hwy | 1/28/2019 | 7:15 AM | 0 | 0 | 674 | 66 | 0 | 102 | 376 | 0 | 0 | 0 | 0 | 0 | 0 | 21 | 0 | 201 | 1440 |
| 14100 | PGA Bl | Beeline Hwy | 1/28/2019 | 4:30 PM | 0 | 0 | 375 | 22 | 0 | 206 | 618 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 91 | 1412 |
| 14100 | PGA Bl | Beeline Hwy | 11/10/2015 | 7:15 AM | 0 | 0 | 601 | 49 | 0 | 90 | 321 | 0 | 0 | 0 | 0 | 0 | 0 | 23 | 0 | 254 | 1338 |
| 14100 | PGA Bl | Beeline Hwy | 1/28/2015 | 7:15 AM | 0 | 0 | 579 | 55 | 0 | 130 | 554 | 0 | 0 | 0 | 0 | 0 | 0 | 13 | 0 | 253 | 1584 |
| 14100 | PGA Bl | Beeline Hwy | 11/10/2015 | 4:30 PM | 0 | 0 | 311 | 23 | 0 | 224 | 613 | 0 | 0 | 0 | 0 | 0 | 0 | 91 | 0 | 81 | 1343 |
| 14100 | PGA Bl | Beeline Hwy | 1/28/2015 | 4:45 PM | 0 | 0 | 300 | 17 | 0 | 268 | 569 | 0 | 0 | 0 | 0 | 0 | 0 | 85 | 0 | 87 | 1326 |
| 14403 | PGA Bl | Campus Dr/Kew Garde | 2/20/2019 | 7:30 AM | 0 | 101 | 38 | 57 | 0 | 21 | 44 | 31 | 0 | 137 | 2046 | 306 | 0 | 28 | 865 | 20 | 3694 |
| 14403 | PGA Bl | Campus Dr/Kew Garde | 2/20/2019 | 12:30 PM | 0 | 250 | 121 | 125 | 0 | 67 | 106 | 43 | 5 | 123 | 1436 | 201 | 19 | 69 | 967 | 78 | 3610 |
| 14403 | PGA Bl | Campus Dr/Kew Garde | 2/20/2019 | 4:45 PM | 0 | 184 | 105 | 83 | 0 | 159 | 126 | 75 | 1 | 101 | 1446 | 117 | 11 | 74 | 1304 | 107 | 3893 |
| 14403 | PGA Bl | Campus Dr/Kew Garde | 9/26/2016 | 7:30 AM | 0 | 84 | 33 | 36 | 0 | 31 | 38 | 74 | 1 | 64 | 1896 | 328 | 2 | 27 | 892 | 44 | 3550 |
| 14403 | PGA Bl | Campus Dr/Kew Garde | 9/26/2016 | 12:00 PM | 0 | 314 | 149 | 140 | 1 | 149 | 103 | 77 | 8 | 86 | 1408 | 295 | 22 | 97 | 1158 | 172 | 4179 |
| 14403 | PGA Bl | Campus Dr/Kew Garde | 9/26/2016 | 4:30 PM | 0 | 201 | 100 | 113 | 0 | 115 | 82 | 177 | 4 | 93 | 1363 | 142 | 26 | 42 | 1541 | 118 | 4117 |
| 14301 | PGA Bl | Central Bl/Ave of the P | 2/13/2018 | 7:30 AM | 0 | 20 | 34 | 43 | 0 | 217 | 13 | 865 | 7 | 591 | 1707 | 27 | 10 | 40 | 1610 | 446 | 5630 |
| 14301 | PGA Bl | Central Bl/Ave of the P | 2/13/2018 | 12:00 PM | 0 | 28 | 11 | 35 | 0 | 162 | 8 | 336 | 11 | 284 | 1315 | 30 | 11 | 69 | 1437 | 116 | 3853 |
| 14301 | PGA Bl | Central Bl/Ave of the P | 2/13/2018 | 5:00 PM | 0 | 50 | 21 | 49 | 0 | 172 | 22 | 731 | 9 | 496 | 1662 | 40 | 10 | 72 | 2455 | 223 | 6012 |
| 14301 | PGA Bl | Central Bl/Ave of the P | 3/7/2016 | 7:30 AM | 0 | 14 | 30 | 32 | 0 | 480 | 5 | 648 | 2 | 609 | 1705 | 24 | 5 | 21 | 1190 | 580 | 5345 |
| 14301 | PGA Bl | Central Bl/Ave of the P | 3/7/2016 | 4:45 PM | 0 | 25 | 17 | 27 | 3 | 292 | 12 | 641 | 8 | 418 | 1546 | 42 | 4 | 47 | 1780 | 266 | 5128 |
| 14301 | PGA Bl | Central Bl/Ave of the P | 2/9/2015 | 7:30 AM | 0 | 8 | 33 | 44 | 0 | 569 | 3 | 561 | 0 | 577 | 1614 | 21 | 8 | 10 | 1108 | 460 | 5016 |

VOLUME DEVELOPMENT SHEET
 BALLENSLES WEST PARCEL
 BallenIsles Dr. & Project Dwy.

AM Peak Hour

| | Northbound | | | Southbound | | | Eastbound | | | Westbound | | | |
|-----------------------------|------------|------|----|------------|------|-------|-----------|------|------|-----------|------|----|----------|
| | LT | Thru | RT | LT | Thru | RT | LT | Thru | RT | LT | Thru | RT | |
| Peak Season 2021 Volumes* | 3 | 79 | 0 | 0 | 146 | 2 | 1 | 0 | 1 | 0 | 0 | 0 | 2,021 |
| Background Traffic Volumes | 3 | 87 | 0 | 0 | 160 | 2 | 1 | 0 | 1 | 0 | 0 | 0 | |
| Project Traffic | | | | | | | | | | | | | |
| Inbound Traffic Assignment | 1.0% | | | | | 99.0% | | | | | | | Inbound |
| Inbound Traffic Volumes | | | | | | 46 | | | | | | | 46 |
| Outbound Traffic Assignment | | | | | | | 99.0% | | 1.0% | | | | Outbound |
| Outbound Traffic Volumes | | | | | | | 22 | | 0 | | | | 22 |
| Project Traffic | 0 | 0 | 0 | 0 | 0 | 46 | 22 | 0 | 0 | 0 | 0 | 0 | |
| TOTAL TRAFFIC | 3 | 87 | 0 | 0 | 160 | 48 | 23 | 0 | 1 | 0 | 0 | 0 | |

PM Peak Hour

| | Northbound | | | Southbound | | | Eastbound | | | Westbound | | | |
|-----------------------------|------------|------|----|------------|------|-------|-----------|------|------|-----------|------|----|----------|
| | LT | Thru | RT | LT | Thru | RT | LT | Thru | RT | LT | Thru | RT | |
| Peak Season 2021 Volumes* | 0 | 139 | 0 | 0 | 131 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 2,021 |
| Background Traffic Volumes | 0 | 152 | 0 | 0 | 144 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | |
| Project Traffic | | | | | | | | | | | | | |
| Inbound Traffic Assignment | 1.0% | | | | | 99.0% | | | | | | | Inbound |
| Inbound Traffic Volumes | | | | | | 24 | | | | | | | 24 |
| Outbound Traffic Assignment | | | | | | | 99.0% | | 1.0% | | | | Outbound |
| Outbound Traffic Volumes | | | | | | | 50 | | 1 | | | | 50 |
| Project Traffic | 0 | 0 | 0 | 0 | 0 | 24 | 50 | 0 | 1 | 0 | 0 | 0 | |
| TOTAL TRAFFIC | 0 | 152 | 0 | 0 | 144 | 26 | 51 | 0 | 1 | 0 | 0 | 0 | |

*Volume data for this location extrapolated from counts at intersection of BallenIsles Dr. & PGA Boulevard

VOLUME DEVELOPMENT SHEET
BALLENISLES WEST PARCEL
 Central Blvd. & PGA Blvd.

Growth Rate = 2.31%
 Peak Season = 1 1 *actual PSCF .99 but counts should not be reduced
 Buildout Year = 2026 2026

AM Peak Hour

| | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
|---|------------|------|----|------------|------|-------|-----------|-------|----|-----------|-------|-----|
| | LT | Thru | RT | LT | Thru | RT | LT | Thru | RT | LT | Thru | RT |
| Existing Volume on 2/13/2018 | 20 | 34 | 43 | 217 | 13 | 865 | 598 | 1,707 | 27 | 50 | 1,610 | 446 |
| 2021 Peak Season Volume | 21 | 36 | 46 | 232 | 14 | 926 | 640 | 1,828 | 29 | 54 | 1,724 | 478 |
| Traffic Volume Growth | 3 | 4 | 6 | 28 | 2 | 112 | 77 | 221 | 4 | 7 | 209 | 58 |
| Committed Development | 0 | 0 | 0 | 46 | 0 | 137 | 231 | 189 | 0 | 0 | 222 | 39 |
| 1.0% Traffic Volume Growth | 1 | 2 | 2 | 12 | 1 | 47 | 33 | 93 | 1 | 3 | 88 | 24 |
| Committed + 1.0% Growth | 1 | 2 | 2 | 58 | 1 | 184 | 264 | 282 | 1 | 3 | 310 | 63 |
| Max (Committed + 1.0% or Historic Growth) | 3 | 4 | 6 | 58 | 2 | 184 | 264 | 282 | 4 | 7 | 310 | 63 |
| Background Traffic Volumes | 24 | 40 | 52 | 290 | 16 | 1,110 | 904 | 2,110 | 33 | 61 | 2,034 | 541 |
| Project Traffic | | | | | | | | | | | | |
| Inbound Traffic Assignment | | | | | | 15.0% | | | | | 68.0% | |
| Inbound Traffic Volumes | | | | | | 6 | | | | | 28 | |
| Outbound Traffic Assignment | | | | | | | 15.0% | 68.0% | | | | |
| Outbound Traffic Volumes | | | | | | | 3 | 14 | | | | |
| Project Traffic | 0 | 0 | 0 | 0 | 0 | 6 | 3 | 14 | 0 | 0 | 28 | 0 |
| Total Traffic w/o RTOR | 24 | 40 | 52 | 290 | 16 | 1,116 | 907 | 2,124 | 33 | 61 | 2,062 | 541 |
| RTOR Reduction | | | | | | | | | | | | |
| TOTAL TRAFFIC | 24 | 40 | 52 | 290 | 16 | 1,116 | 907 | 2,124 | 33 | 61 | 2,062 | 541 |

2,018

Inbound
41
Outbound
20

PM Peak Hour

| | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
|---|------------|------|----|------------|------|-------|-----------|-------|----|-----------|-------|-----|
| | LT | Thru | RT | LT | Thru | RT | LT | Thru | RT | LT | Thru | RT |
| Existing Volume on 2/13/2018 | 50 | 21 | 49 | 172 | 22 | 731 | 505 | 1,662 | 40 | 82 | 2,455 | 223 |
| 2021 Peak Season Volume | 54 | 22 | 52 | 184 | 24 | 783 | 541 | 1,780 | 43 | 88 | 2,629 | 239 |
| Traffic Volume Growth | 7 | 3 | 6 | 22 | 3 | 95 | 65 | 215 | 5 | 11 | 318 | 29 |
| Committed Development | 0 | 0 | 0 | 43 | 0 | 223 | 141 | 300 | 0 | 0 | 234 | 45 |
| 1.0% Traffic Volume Growth | 3 | 1 | 3 | 9 | 1 | 40 | 28 | 91 | 2 | 4 | 134 | 12 |
| Committed + 1.0% Growth | 3 | 1 | 3 | 52 | 1 | 263 | 169 | 391 | 2 | 4 | 368 | 57 |
| Max (Committed + 1.0% or Historic Growth) | 7 | 3 | 6 | 52 | 3 | 263 | 169 | 391 | 5 | 11 | 368 | 57 |
| Background Traffic Volumes | 61 | 25 | 58 | 236 | 27 | 1,046 | 710 | 2,171 | 48 | 99 | 2,997 | 296 |
| Project Traffic | | | | | | | | | | | | |
| Inbound Traffic Assignment | | | | | | 15.0% | | | | | 68.0% | |
| Inbound Traffic Volumes | | | | | | 3 | | | | | 15 | |
| Outbound Traffic Assignment | | | | | | | 15.0% | 68.0% | | | | |
| Outbound Traffic Volumes | | | | | | | 7 | 31 | | | | |
| Project Traffic | 0 | 0 | 0 | 0 | 0 | 3 | 7 | 31 | 0 | 0 | 15 | 0 |
| Total Traffic w/o RTOR | 61 | 25 | 58 | 236 | 27 | 1,049 | 717 | 2,202 | 48 | 99 | 3,012 | 296 |
| RTOR Reduction | | | | | | | | | | | | |
| TOTAL TRAFFIC | 61 | 25 | 58 | 236 | 27 | 1,049 | 717 | 2,202 | 48 | 99 | 3,012 | 296 |

2,018

Inbound
22
Outbound
45

VOLUME DEVELOPMENT SHEET
BALLENISLES WEST PARCEL
 BallenIsles Dr. & PGA Blvd.

Growth Rate = 2.31%
 Peak Season = 1.01 1.01
 Buildout Year = 2026 2026

AM Peak Hour

| | Northbound | | | Southbound | | | Eastbound | | | Westbound | | | |
|---|------------|------|-------|------------|------|----|-----------|-------|-------|-----------|-------|----|---------------------------------|
| | LT | Thru | RT | LT | Thru | RT | LT | Thru | RT | LT | Thru | RT | |
| Existing Volume on 4/25/2018 | 36 | 1 | 42 | 28 | 0 | 15 | 30 | 2,181 | 44 | 86 | 1,753 | 59 | 2,018 |
| 2021 Peak Season Volume | 39 | 1 | 45 | 30 | 0 | 16 | 32 | 2,359 | 48 | 93 | 1,896 | 64 | |
| Traffic Volume Growth | 5 | 0 | 5 | 4 | 0 | 2 | 4 | 285 | 6 | 11 | 229 | 8 | |
| Committed Development | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 420 | 0 | 0 | 359 | 0 | |
| 1.0% Traffic Volume Growth | 2 | 0 | 2 | 2 | 0 | 1 | 2 | 120 | 2 | 5 | 97 | 3 | |
| Committed + 1.0% Growth | 2 | 0 | 2 | 2 | 0 | 1 | 2 | 540 | 2 | 5 | 456 | 3 | |
| Max (Committed + 1.0% or Historic Growth) | 5 | 0 | 5 | 4 | 0 | 2 | 4 | 540 | 6 | 11 | 456 | 8 | |
| Background Traffic Volumes | 44 | 1 | 50 | 34 | 0 | 18 | 36 | 2,899 | 54 | 104 | 2,352 | 72 | |
| Project Traffic | | | | | | | | | | | | | |
| Inbound Traffic Assignment | | | | | 1.0% | | | | 15.0% | 83.0% | | | Inbound 46 Outbound 22 |
| Inbound Traffic Volumes | | | | | | | | | 7 | 38 | | | |
| Outbound Traffic Assignment | 15.0% | 1.0% | 83.0% | | | | | | | | | | |
| Outbound Traffic Volumes | 3 | | 18 | | | | | | | | | | |
| Project Traffic | 3 | 0 | 18 | 0 | 0 | 0 | 0 | 0 | 7 | 38 | 0 | 0 | |
| Total Traffic w/o RTOR | 47 | 1 | 68 | 34 | 0 | 18 | 36 | 2,899 | 61 | 142 | 2,352 | 72 | |
| RTOR Reduction | | | | | | | | | | | | | |
| TOTAL TRAFFIC | 47 | 1 | 68 | 34 | 0 | 18 | 36 | 2,899 | 61 | 142 | 2,352 | 72 | |

PM Peak Hour

| | Northbound | | | Southbound | | | Eastbound | | | Westbound | | | |
|---|------------|------|-------|------------|------|----|-----------|-------|-------|-----------|-------|----|---------------------------------|
| | LT | Thru | RT | LT | Thru | RT | LT | Thru | RT | LT | Thru | RT | |
| Existing Volume on 4/25/2018 | 49 | 2 | 89 | 29 | 0 | 36 | 28 | 1,800 | 50 | 64 | 2,219 | 13 | 2,018 |
| 2021 Peak Season Volume | 53 | 2 | 96 | 31 | 0 | 39 | 30 | 1,947 | 54 | 69 | 2,400 | 14 | |
| Traffic Volume Growth | 6 | 0 | 12 | 4 | 0 | 5 | 4 | 236 | 7 | 8 | 290 | 2 | |
| Committed Development | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 441 | 0 | 0 | 457 | 0 | |
| 1.0% Traffic Volume Growth | 3 | 0 | 5 | 2 | 0 | 2 | 2 | 99 | 3 | 4 | 122 | 1 | |
| Committed + 1.0% Growth | 3 | 0 | 5 | 2 | 0 | 2 | 2 | 540 | 3 | 4 | 579 | 1 | |
| Max (Committed + 1.0% or Historic Growth) | 6 | 0 | 12 | 4 | 0 | 5 | 4 | 540 | 7 | 8 | 579 | 2 | |
| Background Traffic Volumes | 59 | 2 | 108 | 35 | 0 | 44 | 34 | 2,487 | 61 | 77 | 2,979 | 16 | |
| Project Traffic | | | | | | | | | | | | | |
| Inbound Traffic Assignment | | | | | 1.0% | | | | 15.0% | 83.0% | | | Inbound 24 Outbound 50 |
| Inbound Traffic Volumes | | | | | | | | | 4 | 20 | | | |
| Outbound Traffic Assignment | 15.0% | 1.0% | 83.0% | | | | | | | | | | |
| Outbound Traffic Volumes | 8 | 1 | 42 | | | | | | | | | | |
| Project Traffic | 8 | 1 | 42 | 0 | 0 | 0 | 0 | 0 | 4 | 20 | 0 | 0 | |
| Total Traffic w/o RTOR | 67 | 3 | 150 | 35 | 0 | 44 | 34 | 2,487 | 65 | 97 | 2,979 | 16 | |
| RTOR Reduction | | | | | | | | | | | | | |
| TOTAL TRAFFIC | 67 | 3 | 150 | 35 | 0 | 44 | 34 | 2,487 | 65 | 97 | 2,979 | 16 | |

CONTROLLER TIME SHEET

DATE TIMING INSTALLED: _____

| | | | |
|---------------|-----------------------|------------------|--------|
| INTERSECTION: | PGA BL & CENTRAL BLVD | CONTROLLER TYPE: | NAZTEC |
| SIGNAL # | 14301 | SYSTEM # | 450 |

| PHASE NUMBER | BOUND | TIMING INTERVAL | | | | | | | | | | | | | |
|--------------|-------|-----------------|---------|-------|-------|---------|---------|------|---------|---------|---------|---------|--------------|--------------|--------------------------|
| | | MIN GREEN | GAP EXT | MAX 1 | MAX 2 | YEL CLR | RED CLR | WALK | PED CLR | MIN RCL | MAX RCL | PED RCL | PHASE ENABLE | LOCKED CALLS | DETECTOR SETTINGS |
| 1 | EBLT | 4.0 | 2.0 | 30.0 | | 5.0 | 2.0 | 0.0 | 0.0 | 0 | 0 | 0 | 1 | 0 | L1=NORMAL |
| 2 | WB | 20.0 | 4.0 | 65.0 | | 5.0 | 2.0 | 7.0 | 29.0 | 1 | 0 | 0 | 1 | 1 | L2=NORMAL |
| 3 | SBLT | 5.0 | 3.0 | 35.0 | | 5.0 | 4.0 | 7.0 | 31.0 | 0 | 0 | 0 | 1 | 0 | L3=NORMAL L3R=D/N(10) |
| 4 | NB | 4.0 | 2.0 | 10.0 | | 5.0 | 2.0 | 7.0 | 37.0 | 0 | 0 | 0 | 1 | 0 | L4=NORMAL L4R=D/N(10) |
| 5 | WBLT | 4.0 | 2.0 | 20.0 | | 5.0 | 2.0 | 0.0 | 0.0 | 0 | 0 | 0 | 1 | 0 | L5=NORMAL |
| 6 | EB | 20.0 | 4.0 | 65.0 | | 5.0 | 2.0 | 7.0 | 28.0 | 1 | 0 | 0 | 1 | 1 | L6=NORMAL |
| 7 | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | |

| PRE-EMPTION TIMING | | | | | | | | | SPECIAL FUNCTIONS | | | | | |
|-------------------------------------|--------------|--------------|------------------------|-------------|-----------------|--|-----------|--------|--|------------|------------|-----------------|------------|--|
| | DELAY BEFORE | GREEN BEFORE | PRE-EMPT 1 LOCK MEMORY | TRACK CLR Φ | TRACK CLR GREEN | DWELL Φ | MIN DWELL | EXIT Φ | START Φ | DUAL ENTRY | DET SWITCH | OUT OF FLASH | INTO FLASH | |
| R/R | | | | | | | | | 2,6 | 2,6 | | 2,6 | 4 | |
| BRIDGE | | | | | | | | | Notes: 1. REFER TO SYSTEM TIMING AND ALT TIMING PLAN 2. CHANGE IN CLEARANCES, SPLITS. 3. 4. | | | | | |
| FIRE STN | | | | | | | | | | | | | | |
| BUS | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| TIMING DESIGNED BY: CEDRIC ANDERSON | | | DATE: 2/11/2021 | | | APPROVED BY: SUNIL GYAWALI, P.E , PTOE | | | <i>Sunil</i> | | | DATE: 2/16/2021 | | |

SYSTEM TIMING SHEET

DATE TIMING INSTALLED: _____

| | | | |
|---------------|-----------------------|------------------|--------|
| INTERSECTION: | PGA BL & CENTRAL BLVD | CONTROLLER TYPE: | NAZTEC |
| SYSTEM: | PGA BL | SIGNAL # | 14301 |
| | | SYSTEM # | 450 |

| TOD SCHEDULER | | | | | | | | | | | |
|---------------|---------|-------|---------|----------|---------|------|---------|--------|---------|------|---------|
| WEEKDAY | | | | WEEKEND | | | | | | | |
| | | | | SATURDAY | | | | SUNDAY | | | |
| TIME | PATTERN | TIME | PATTERN | TIME | PATTERN | TIME | PATTERN | TIME | PATTERN | TIME | PATTERN |
| 0:00 | 100 | 6:30 | 2 | 0:00 | 100 | 9:00 | 8 | 0:00 | 100 | 9:00 | 8 |
| 9:00 | 1 | 16:00 | 3 | 20:00 | 100 | | | 20:00 | 100 | | |
| 20:00 | 4 | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

| TIMING PLANS | | | | | | | | | | | | | |
|--------------------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|--|
| PATTERN | 1 | | 2 | | 3 | | 4 | | 8 | | | | |
| CYCLE LENGTH (SEC) | 120 | | 170 | | 180 | | 100 | | 160 | | | | |
| OFFSET (SEC) | 98 | | 8 | | 111 | | 71 | | 5 | | | | |
| COORDINATED PHASE | 2 | | 2 | | 2 | | 2 | | 2 | | | | |
| SEQUENCE | 3 | | 9 | | 1 | | 1 | | 1 | | | | |
| ALT TIMING PLAN | 1 | | 2 | | 3 | | 4 | | 1 | | | | |
| | SPLIT | MODE | SPLIT | MODE | SPLIT | MODE | SPLIT | MODE | SPLIT | MODE | SPLIT | MODE | |
| FORCE-OFF 1 (SEC) | EBLT | 25 | NON | 51 | NON | 32 | NON | 18 | NON | 25 | NON | NON | |
| FORCE-OFF 2 (SEC) | WB | 51 | MAX | 35 | MAX | 48 | MAX | 35 | MAX | 35 | MAX | MAX | |
| FORCE-OFF 3 (SEC) | SBLT | 25 | NON | 32 | NON | 48 | NON | 28 | NON | 48 | NON | NON | |
| FORCE-OFF 4 (SEC) | NB | 19 | NON | 52 | NON | 52 | NON | 19 | NON | 52 | NON | NON | |
| FORCE-OFF 5 (SEC) | WBLT | 18 | NON | 18 | NON | 18 | NON | 18 | NON | 25 | NON | NON | |
| FORCE-OFF 6 (SEC) | EB | 58 | MAX | 68 | MAX | 62 | MAX | 35 | MAX | 35 | MAX | MAX | |
| FORCE-OFF 7 (SEC) | NBLT | 0 | NON | 0 | NON | 0 | NON | 0 | NON | 0 | NON | NON | |
| FORCE-OFF 8 (SEC) | SB | 44 | NON | 84 | NON | 100 | NON | 47 | NON | 100 | NON | NON | |

Special Features:

1) _____

2) _____

3) _____

TIMING DESIGNED BY: CEDRIC ANDERSON

APPROVED BY: SUNIL GYAWALI, P.E., PTOE *gyawali*

DATE: ~~12/2/2019~~ 2/11/2021
DATE: 2/16/2021

[1.1.6.1] ALTERNATE TIMING SHEET

| INTERSECTION: PGA BL & CENTRAL BLVD | | | | | | | | | | | SIGNAL # 14301 | | | | SYSTEM # 450 | | | | | | |
|-------------------------------------|----------|-------|-------|--------|-----------|------|-----------|----------------|------------|--|-------------------|----------|-------|-------|--------------|-----------|------|-----------|----------------|------------|--|
| MIN GREEN | GAP TIME | MAX 1 | MAX 2 | YELLOW | RED CLEAR | WALK | PED CLEAR | ASSIGNED PHASE | BIKE CLEAR | | MIN GREEN | GAP TIME | MAX 1 | MAX 2 | YELLOW | RED CLEAR | WALK | PED CLEAR | ASSIGNED PHASE | BIKE CLEAR | |
| ALT TIMING PLAN 1 | | | | | | | | | | | ALT TIMING PLAN 2 | | | | | | | | | | |
| 1 | 4.0 | 2.0 | 30.0 | 21.0 | 5.0 | 2.0 | 0.0 | 0.0 | 1 | | 1 | 4.0 | 4.0 | 60.0 | 17.0 | 5.0 | 2.0 | 0.0 | 0.0 | 1 | |
| 2 | 20.0 | 4.0 | 65.0 | 31.0 | 5.0 | 2.0 | 7.0 | 29.0 | 2 | | 2 | 20.0 | 4.0 | 65.0 | 31.0 | 5.0 | 2.0 | 7.0 | 29.0 | 2 | |
| 3 | 5.0 | 3.0 | 39.0 | 20.0 | 5.0 | 4.0 | 7.0 | 31.0 | 3 | | 3 | 5.0 | 3.0 | 35.0 | 15.0 | 5.0 | 4.0 | 7.0 | 31.0 | 3 | |
| 4 | 4.0 | 2.0 | 10.0 | 20.0 | 5.0 | 2.0 | 7.0 | 37.0 | 4 | | 4 | 4.0 | 2.0 | 10.0 | 15.0 | 5.0 | 2.0 | 7.0 | 37.0 | 4 | |
| 5 | 4.0 | 2.0 | 20.0 | 9.0 | 5.0 | 2.0 | 0.0 | 0.0 | 5 | | 5 | 4.0 | 2.0 | 20.0 | 8.0 | 5.0 | 2.0 | 0.0 | 0.0 | 5 | |
| 6 | 20.0 | 4.0 | 65.0 | 31.0 | 5.0 | 2.0 | 7.0 | 28.0 | 6 | | 6 | 20.0 | 4.0 | 65.0 | 31.0 | 5.0 | 2.0 | 7.0 | 28.0 | 6 | |
| 7 | | | | | | | | | | | 7 | | | | | | | | | | |
| 8 | | | | | | | | | | | 8 | | | | | | | | | | |

| MIN GREEN | GAP TIME | MAX 1 | MAX 2 | YELLOW | RED CLEAR | WALK | PED CLEAR | ASSIGNED PHASE | BIKE CLEAR | | MIN GREEN | GAP TIME | MAX 1 | MAX 2 | YELLOW | RED CLEAR | WALK | PED CLEAR | ASSIGNED PHASE | BIKE CLEAR | |
|-------------------|----------|-------|-------|--------|-----------|------|-----------|----------------|------------|--|-------------------|----------|-------|-------|--------|-----------|------|-----------|----------------|------------|--|
| ALT TIMING PLAN 3 | | | | | | | | | | | ALT TIMING PLAN 4 | | | | | | | | | | |
| 1 | 4.0 | 2.0 | 30.0 | 15.0 | 5.0 | 2.0 | 0.0 | 0.0 | 1 | | 1 | 4.0 | 2.0 | 30.0 | 8.0 | 5.0 | 2.0 | 0.0 | 0.0 | 1 | |
| 2 | 20.0 | 4.0 | 65.0 | 31.0 | 5.0 | 2.0 | 7.0 | 29.0 | 2 | | 2 | 20.0 | 4.0 | 65.0 | 31.0 | 5.0 | 2.0 | 7.0 | 29.0 | 2 | |
| 3 | 5.0 | 3.0 | 35.0 | 16.0 | 5.0 | 4.0 | 7.0 | 31.0 | 3 | | 3 | 5.0 | 3.0 | 35.0 | 8.0 | 5.0 | 4.0 | 7.0 | 31.0 | 3 | |
| 4 | 4.0 | 2.0 | 10.0 | 16.0 | 5.0 | 2.0 | 7.0 | 37.0 | 4 | | 4 | 4.0 | 2.0 | 10.0 | 8.0 | 5.0 | 2.0 | 7.0 | 37.0 | 4 | |
| 5 | 4.0 | 2.0 | 20.0 | 10.0 | 5.0 | 2.0 | 0.0 | 0.0 | 5 | | 5 | 4.0 | 2.0 | 20.0 | 8.0 | 5.0 | 2.0 | 0.0 | 0.0 | 5 | |
| 6 | 20.0 | 4.0 | 65.0 | 31.0 | 5.0 | 2.0 | 7.0 | 28.0 | 6 | | 6 | 20.0 | 4.0 | 65.0 | 31.0 | 5.0 | 2.0 | 7.0 | 28.0 | 6 | |
| 7 | | | | | | | | | | | 7 | | | | | | | | | | |
| 8 | | | | | | | | | | | 8 | | | | | | | | | | |

| MIN GREEN | GAP TIME | MAX 1 | MAX 2 | YELLOW | RED CLEAR | WALK | PED CLEAR | ASSIGNED PHASE | BIKE CLEAR | ALT TIMING PLAN ASSIGNMENTS | | | | | | | | | | |
|-------------------|----------|-------|-------|--------|-----------|------|-----------|----------------|------------|-----------------------------|-------------|--|--|--|--|--|--|--|--|--|
| ALT TIMING PLAN 5 | | | | | | | | | | | | | | | | | | | | |
| 1 | | | | | | | | | | ALT TIMING PLAN 1 | PATTERN 1,8 | | | | | | | | | |
| 2 | | | | | | | | | | ALT TIMING PLAN 2 | PATTERN 2 | | | | | | | | | |
| 3 | | | | | | | | | | ALT TIMING PLAN 3 | PATTERN 3 | | | | | | | | | |
| 4 | | | | | | | | | | ALT TIMING PLAN 4 | PATTERN 4 | | | | | | | | | |
| 5 | | | | | | | | | | ALT TIMING PLAN 5 | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | | | |

NOTES:

TIMING DESIGNED BY: CEDRIC ANDERSON
 APPROVED BY: SUNIL GYAWALI, P.E , PTOE *Sunil Gyawali*
 DATE: 12/2/2019 2/11/2020
 DATE: 2/16/2021

CONTROLLER TIME SHEET

DATE TIMING INSTALLED: _____

| | | | |
|---------------|-------------------------------------|------------------|--------|
| INTERSECTION: | PGA BLVD & BALLENSLE DR (TEMPORARY) | CONTROLLER TYPE: | NAZTEC |
| SIGNAL # | 14305 | SYSTEM # | 445 |

| PHASE NUMBER | BOUND | TIMING INTERVAL | | | | | | | | | | | | | |
|--------------|-------|-----------------|---------|-------|-------|---------|---------|------|---------|---------|---------|---------|--------------|--------------|--------------------------|
| | | MIN GREEN | GAP EXT | MAX 1 | MAX 2 | YEL CLR | RED CLR | WALK | PED CLR | MIN RCL | MAX RCL | PED RCL | PHASE ENABLE | LOCKED CALLS | DETECTOR SETTINGS |
| 1 | EBLT | 4.0 | 2.0 | 20.0 | | 5.0 | 2.0 | 0.0 | 0.0 | 0 | 0 | 0 | 1 | 0 | L1=NORMAL |
| 2 | WB | 15.0 | 4.0 | 60.0 | | 5.0 | 2.0 | 7.0 | 21.0 | 1 | 1 | 0 | 1 | 1 | L2=NORMAL |
| 3 | | | | | | | | | | | | | | | |
| 4 | NB | 6.0 | 2.0 | 20.0 | | 4.0 | 3.5 | 7.0 | 33.0 | 0 | 0 | 0 | 1 | 0 | L4=NORMAL L4R=D/N(10) |
| 5 | WBLT | 4.0 | 3.0 | 40.0 | | 5.0 | 2.0 | 0.0 | 0.0 | 0 | 0 | 0 | 1 | 0 | L5=NORMAL |
| 6 | EB | 15.0 | 4.0 | 60.0 | | 5.0 | 2.0 | 7.0 | 26.0 | 1 | 1 | 0 | 1 | 1 | L6=NORMAL |
| 7 | | | | | | | | | | | | | | | |
| 8 | SB | 6.0 | 2.0 | 20.0 | | 4.0 | 3.5 | 7.0 | 32.0 | 0 | 0 | 0 | 1 | 0 | L8=NORMAL L8R=D/N(10) |

| PRE-EMPTION TIMING | | | | | | | | | SPECIAL FUNCTIONS | | | | | | |
|-------------------------------------|--------------|--------------|------------------------|-------------|-----------------|--|-----------|--------|---|---------|------------|-----------------|--------------|------------|--|
| | DELAY BEFORE | GREEN BEFORE | PRE-EMPT 1 LOCK MEMORY | TRACK CLR Φ | TRACK CLR GREEN | DWELL Φ | MIN DWELL | EXIT Φ | | START Φ | DUAL ENTRY | DET SWITCH | OUT OF FLASH | INTO FLASH | |
| R/R | | | | | | | | | | 2,6 | 2,4,6,8 | 1,5 | 2,6 | 4,8 | |
| BRIDGE | | | | | | | | | Notes: 1. REFER TO SYSTEM TIMING AND ALT TIMING PLANS | | | | | | |
| FIRE STN | | | | | | | | | 2. UPDATED TS | | | | | | |
| BUS | | | | | | | | | 3. | | | | | | |
| | | | | | | | | | 4. | | | | | | |
| TIMING DESIGNED BY: CEDRIC ANDERSON | | | DATE: 2/11/2021 | | | APPROVED BY: SUNIL GYAWALI, P.E., PTOE | | | <i>Sunil Gyawali</i> | | | DATE: 2/16/2021 | | | |

SYSTEM TIMING SHEET

DATE TIMING INSTALLED: _____

| | | | |
|---------------|-------------------------------------|------------------|--------|
| INTERSECTION: | PGA BLVD & BALLENSLE DR (TEMPORARY) | CONTROLLER TYPE: | NAZTEC |
| SYSTEM: | | SIGNAL # | 14305 |
| | | SYSTEM # | 445 |

| TOD SCHEDULER | | | | | | | | | | | |
|---------------|---------|-------|---------|----------|---------|------|---------|--------|---------|------|---------|
| WEEKDAY | | | | WEEKEND | | | | | | | |
| | | | | SATURDAY | | | | SUNDAY | | | |
| TIME | PATTERN | TIME | PATTERN | TIME | PATTERN | TIME | PATTERN | TIME | PATTERN | TIME | PATTERN |
| 0:00 | 100 | 6:30 | 2 | 0:00 | 100 | 9:00 | 1 | 0:00 | 100 | 9:00 | 1 |
| 9:00 | 1 | 16:00 | 3 | 20:00 | 100 | | | 20:00 | 100 | | |
| 20:00 | 4 | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

| TIMING PLANS | | | | | |
|--------------------|-----|-----|-----|-----|-----|
| PATTERN | 1 | 2 | 3 | 4 | 8 |
| CYCLE LENGTH (SEC) | 120 | 170 | 180 | 100 | 160 |
| OFFSET (SEC) | 116 | 27 | 134 | 81 | 10 |
| COORDINATED PHASE | 2 | 2 | 2 | 2 | |
| SEQUENCE | 1 | 1 | 1 | 1 | 1 |
| ALT TIMING PLAN | 1 | 2 | 3 | 2 | |

| | | SPLIT | MODE | SPLIT | MODE | SPLIT | MODE | SPLIT | MODE | SPLIT | MODE | SPLIT | MODE |
|-------------------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|
| FORCE-OFF 1 (SEC) | EBLT | 20 | NON | 26 | NON | 17 | NON | 19 | NON | 25 | NON | | |
| FORCE-OFF 2 (SEC) | WB | 51 | MAX | 103 | MAX | 116 | MAX | 61 | MAX | 75 | MAX | | |
| FORCE-OFF 3 (SEC) | | | | | | | | | | | | | |
| FORCE-OFF 4 (SEC) | NB | 49 | NON | 41 | NON | 47 | NON | 20 | NON | 60 | NON | | |
| FORCE-OFF 5 (SEC) | WBLT | 20 | NON | 26 | NON | 17 | NON | 19 | NON | 40 | NON | | |
| FORCE-OFF 6 (SEC) | EB | 51 | MAX | 103 | MAX | 116 | MAX | 61 | MAX | 60 | MAX | | |
| FORCE-OFF 7 (SEC) | | | | | | | | | | | | | |
| FORCE-OFF 8 (SEC) | SB | 49 | NON | 41 | NON | 47 | NON | 20 | NON | 60 | NON | | |

Special Features:

1) _____

2) _____

3) _____

| | | | |
|---------------------|---------------------------|-------|---------------------------------|
| TIMING DESIGNED BY: | CEDRIC ANDERSON | DATE: | 11/25/2019 2/11/2021 |
| APPROVED BY: | SUNIL GYAWALI, P.E., PTOE | DATE: | 8/16/2021 |

[1.1.6.1] ALTERNATE TIMING SHEET

INTERSECTION: PGA BLVD & BALLENSLE DR (TEMPORARY) SIGNAL # 14305 SYSTEM # 445

| | ALT TIMING PLAN 1 | | | | | | | | | | ALT TIMING PLAN 2 | | | | | | | | | | |
|---|-------------------|----------|-------|-------|--------|-----------|------|-----------|----------------|------------|-------------------|----------|-------|-------|--------|-----------|------|-----------|----------------|------------|--|
| | MIN GREEN | GAP TIME | MAX 1 | MAX 2 | YELLOW | RED CLEAR | WALK | PED CLEAR | ASSIGNED PHASE | BIKE CLEAR | MIN GREEN | GAP TIME | MAX 1 | MAX 2 | YELLOW | RED CLEAR | WALK | PED CLEAR | ASSIGNED PHASE | BIKE CLEAR | |
| 1 | 4.0 | 2.0 | 20.0 | 8.0 | 5.0 | 2.0 | 0.0 | 0.0 | 1 | | 1 | 4.0 | 2.0 | 20.0 | 8.0 | 5.0 | 2.0 | 0.0 | 0.0 | 1 | |
| 2 | 15.0 | 4.0 | 60.0 | 39.0 | 5.0 | 2.0 | 7.0 | 21.0 | 2 | | 2 | 15.0 | 4.0 | 60.0 | 39.0 | 5.0 | 2.0 | 7.0 | 21.0 | 2 | |
| 3 | | | | | | | | | | | 3 | | | | | | | | | | |
| 4 | 6.0 | 2.0 | 18.0 | 12.0 | 4.0 | 3.5 | 7.0 | 33.0 | 4 | | 4 | 6.0 | 2.0 | 20.0 | 10.0 | 4.0 | 3.5 | 7.0 | 33.0 | 4 | |
| 5 | 4.0 | 3.0 | 40.0 | 8.0 | 5.0 | 2.0 | 0.0 | 0.0 | 5 | | 5 | 4.0 | 3.0 | 40.0 | 8.0 | 5.0 | 2.0 | 0.0 | 0.0 | 5 | |
| 6 | 15.0 | 4.0 | 60.0 | 39.0 | 5.0 | 2.0 | 7.0 | 26.0 | 6 | | 6 | 15.0 | 4.0 | 60.0 | 39.0 | 5.0 | 2.0 | 7.0 | 26.0 | 6 | |
| 7 | | | | | | | | | | | 7 | | | | | | | | | | |
| 8 | 6.0 | 2.0 | 18.0 | 12.0 | 4.0 | 3.5 | 7.0 | 32.0 | 8 | | 8 | 6.0 | 2.0 | 20.0 | 10.0 | 4.0 | 3.5 | 7.0 | 32.0 | 8 | |

| | ALT TIMING PLAN 3 | | | | | | | | | | ALT TIMING PLAN 4 | | | | | | | | | | |
|---|-------------------|----------|-------|-------|--------|-----------|------|-----------|----------------|------------|-------------------|----------|-------|-------|--------|-----------|------|-----------|----------------|------------|--|
| | MIN GREEN | GAP TIME | MAX 1 | MAX 2 | YELLOW | RED CLEAR | WALK | PED CLEAR | ASSIGNED PHASE | BIKE CLEAR | MIN GREEN | GAP TIME | MAX 1 | MAX 2 | YELLOW | RED CLEAR | WALK | PED CLEAR | ASSIGNED PHASE | BIKE CLEAR | |
| 1 | 4.0 | 2.0 | 20.0 | 8.0 | 5.0 | 2.0 | 0.0 | 0.0 | 1 | | 1 | | | | | | | | | | |
| 2 | 15.0 | 4.0 | 60.0 | 39.0 | 5.0 | 2.0 | 7.0 | 21.0 | 2 | | 2 | | | | | | | | | | |
| 3 | | | | | | | | | | | 3 | | | | | | | | | | |
| 4 | 6.0 | 2.0 | 20.0 | 10.0 | 4.0 | 3.5 | 7.0 | 33.0 | 4 | | 4 | | | | | | | | | | |
| 5 | 4.0 | 3.0 | 40.0 | 8.0 | 5.0 | 2.0 | 0.0 | 0.0 | 5 | | 5 | | | | | | | | | | |
| 6 | 15.0 | 4.0 | 60.0 | 39.0 | 5.0 | 2.0 | 7.0 | 26.0 | 6 | | 6 | | | | | | | | | | |
| 7 | | | | | | | | | | | 7 | | | | | | | | | | |
| 8 | 6.0 | 2.0 | 20.0 | 10.0 | 4.0 | 3.5 | 7.0 | 32.0 | 8 | | 8 | | | | | | | | | | |

| | ALT TIMING PLAN 5 | | | | | | | | | | ALT TIMING PLAN ASSIGNMENTS | |
|---|-------------------|----------|-------|-------|--------|-----------|------|-----------|----------------|------------|-----------------------------|--------------|
| | MIN GREEN | GAP TIME | MAX 1 | MAX 2 | YELLOW | RED CLEAR | WALK | PED CLEAR | ASSIGNED PHASE | BIKE CLEAR | | |
| 1 | | | | | | | | | | | ALT TIMING PLAN 1 | PATTERN 1 |
| 2 | | | | | | | | | | | ALT TIMING PLAN 2 | PATTERN 2, 4 |
| 3 | | | | | | | | | | | ALT TIMING PLAN 3 | PATTERN 3 |
| 4 | | | | | | | | | | | ALT TIMING PLAN 4 | |
| 5 | | | | | | | | | | | ALT TIMING PLAN 5 | |
| 6 | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | |

NOTES:

TIMING DESIGNED BY: CEDRIC ANDERSON
 APPROVED BY: SUNIL GYAWALI, P.E., PTOE *gyawali*
 DATE: 11/25/2019 - 2/11/2021
 DATE: 2/16/2021

APPENDIX C: SYNCHRO OUTPUT SHEETS

Timings

Existing AM (2021)

1: BallenIsles Dr./Old Palm Dr. & PGA Blvd.

08/18/2021

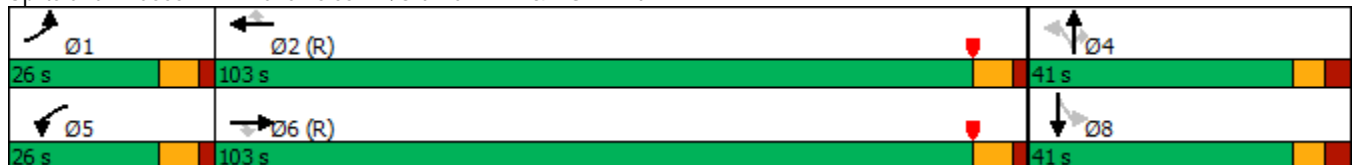


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT |
|----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Lane Configurations | ↖ | ↑↑↑ | ↗ | ↖ | ↑↑↑ | ↗ | | ↑ | ↗ | ↖ | ↗ |
| Traffic Volume (vph) | 32 | 2359 | 48 | 93 | 1896 | 64 | 39 | 1 | 45 | 30 | 0 |
| Future Volume (vph) | 32 | 2359 | 48 | 93 | 1896 | 64 | 39 | 1 | 45 | 30 | 0 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Perm | NA | Perm | Perm | NA |
| Protected Phases | 1 | 6 | | 5 | 2 | | | 4 | | | 8 |
| Permitted Phases | | | 6 | | | 2 | 4 | | 4 | 8 | |
| Detector Phase | 1 | 6 | 6 | 5 | 2 | 2 | 4 | 4 | 4 | 8 | 8 |
| Switch Phase | | | | | | | | | | | |
| Minimum Initial (s) | 4.0 | 15.0 | 15.0 | 4.0 | 15.0 | 15.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Minimum Split (s) | 11.0 | 40.0 | 40.0 | 11.0 | 35.0 | 35.0 | 47.5 | 47.5 | 47.5 | 46.5 | 46.5 |
| Total Split (s) | 26.0 | 103.0 | 103.0 | 26.0 | 103.0 | 103.0 | 41.0 | 41.0 | 41.0 | 41.0 | 41.0 |
| Total Split (%) | 15.3% | 60.6% | 60.6% | 15.3% | 60.6% | 60.6% | 24.1% | 24.1% | 24.1% | 24.1% | 24.1% |
| Yellow Time (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| All-Red Time (s) | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | | 7.5 | 7.5 | 7.5 | 7.5 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | | | | | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | | | | | |
| Recall Mode | None | C-Max | C-Max | None | C-Max | C-Max | None | None | None | None | None |
| Act Effct Green (s) | 8.8 | 125.4 | 125.4 | 15.0 | 135.5 | 135.5 | | 10.8 | 10.8 | 10.8 | 10.8 |
| Actuated g/C Ratio | 0.05 | 0.74 | 0.74 | 0.09 | 0.80 | 0.80 | | 0.06 | 0.06 | 0.06 | 0.06 |
| v/c Ratio | 0.38 | 0.68 | 0.04 | 0.65 | 0.51 | 0.05 | | 0.51 | 0.30 | 0.38 | 0.06 |
| Control Delay | 89.1 | 14.6 | 0.9 | 53.2 | 19.5 | 5.5 | | 96.2 | 10.0 | 87.8 | 0.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 89.1 | 14.6 | 0.9 | 53.2 | 19.5 | 5.5 | | 96.2 | 10.0 | 87.8 | 0.4 |
| LOS | F | B | A | D | B | A | | F | A | F | A |
| Approach Delay | | 15.3 | | | 20.6 | | | 50.3 | | | 58.1 |
| Approach LOS | | B | | | C | | | D | | | E |

Intersection Summary

Cycle Length: 170
 Actuated Cycle Length: 170
 Offset: 27 (16%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow
 Natural Cycle: 140
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.68
 Intersection Signal Delay: 18.8
 Intersection LOS: B
 Intersection Capacity Utilization 77.5%
 ICU Level of Service D
 Analysis Period (min) 15

Splits and Phases: 1: BallenIsles Dr./Old Palm Dr. & PGA Blvd.

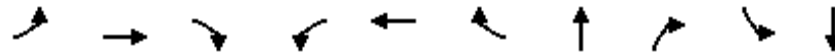


Queues

Existing AM (2021)

1: BallenIsles Dr./Old Palm Dr. & PGA Blvd.

08/18/2021



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBT | NBR | SBL | SBT |
|-------------------------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 35 | 2564 | 52 | 101 | 2061 | 70 | 43 | 49 | 33 | 17 |
| v/c Ratio | 0.38 | 0.68 | 0.04 | 0.65 | 0.51 | 0.05 | 0.51 | 0.30 | 0.38 | 0.06 |
| Control Delay | 89.1 | 14.6 | 0.9 | 53.2 | 19.5 | 5.5 | 96.2 | 10.0 | 87.8 | 0.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 89.1 | 14.6 | 0.9 | 53.2 | 19.5 | 5.5 | 96.2 | 10.0 | 87.8 | 0.4 |
| Queue Length 50th (ft) | 38 | 543 | 0 | 115 | 295 | 5 | 47 | 0 | 36 | 0 |
| Queue Length 95th (ft) | 79 | 728 | 8 | m92 | m331 | m7 | 92 | 22 | 74 | 0 |
| Internal Link Dist (ft) | | 1128 | | | 1260 | | 383 | | | 307 |
| Turn Bay Length (ft) | 275 | | 110 | 450 | | 280 | | | | |
| Base Capacity (vph) | 197 | 3752 | 1187 | 200 | 4054 | 1277 | 263 | 368 | 267 | 461 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.18 | 0.68 | 0.04 | 0.51 | 0.51 | 0.05 | 0.16 | 0.13 | 0.12 | 0.04 |

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th Signalized Intersection Summary
 1: BallenIsles Dr./Old Palm Dr. & PGA Blvd.

Existing AM (2021)
 08/18/2021



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|-------|-------|------|------|------|-------|------|------|------|------|------|------|
| Lane Configurations | ↖ | ↑↑↑ | ↗ | ↖ | ↑↑↑ | ↗ | | ↑ | ↗ | ↖ | ↗ | |
| Traffic Volume (veh/h) | 32 | 2359 | 48 | 93 | 1896 | 64 | 39 | 1 | 45 | 30 | 0 | 16 |
| Future Volume (veh/h) | 32 | 2359 | 48 | 93 | 1896 | 64 | 39 | 1 | 45 | 30 | 0 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 35 | 2564 | 52 | 101 | 2061 | 70 | 42 | 1 | 49 | 33 | 0 | 17 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 45 | 3731 | 1158 | 120 | 3945 | 1225 | 132 | 3 | 120 | 92 | 0 | 120 |
| Arrive On Green | 0.03 | 0.73 | 0.73 | 0.13 | 1.00 | 1.00 | 0.08 | 0.08 | 0.08 | 0.08 | 0.00 | 0.08 |
| Sat Flow, veh/h | 1781 | 5106 | 1585 | 1781 | 5106 | 1585 | 1192 | 35 | 1585 | 1355 | 0 | 1585 |
| Grp Volume(v), veh/h | 35 | 2564 | 52 | 101 | 2061 | 70 | 43 | 0 | 49 | 33 | 0 | 17 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1702 | 1585 | 1781 | 1702 | 1585 | 1228 | 0 | 1585 | 1355 | 0 | 1585 |
| Q Serve(g_s), s | 3.3 | 46.2 | 1.6 | 9.4 | 0.0 | 0.0 | 5.0 | 0.0 | 5.0 | 4.1 | 0.0 | 1.7 |
| Cycle Q Clear(g_c), s | 3.3 | 46.2 | 1.6 | 9.4 | 0.0 | 0.0 | 6.6 | 0.0 | 5.0 | 10.7 | 0.0 | 1.7 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 0.98 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 45 | 3731 | 1158 | 120 | 3945 | 1225 | 135 | 0 | 120 | 92 | 0 | 120 |
| V/C Ratio(X) | 0.77 | 0.69 | 0.04 | 0.84 | 0.52 | 0.06 | 0.32 | 0.00 | 0.41 | 0.36 | 0.00 | 0.14 |
| Avail Cap(c_a), veh/h | 199 | 3731 | 1158 | 199 | 3945 | 1225 | 305 | 0 | 312 | 257 | 0 | 312 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l) | 1.00 | 1.00 | 1.00 | 0.09 | 0.09 | 0.09 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 82.3 | 12.4 | 6.4 | 72.7 | 0.0 | 0.0 | 76.5 | 0.0 | 75.0 | 80.9 | 0.0 | 73.4 |
| Incr Delay (d2), s/veh | 23.5 | 1.1 | 0.1 | 1.6 | 0.0 | 0.0 | 1.4 | 0.0 | 2.2 | 2.3 | 0.0 | 0.5 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.8 | 17.2 | 0.6 | 4.1 | 0.0 | 0.0 | 1.9 | 0.0 | 2.1 | 1.5 | 0.0 | 0.7 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 105.8 | 13.4 | 6.4 | 74.3 | 0.0 | 0.0 | 77.8 | 0.0 | 77.2 | 83.2 | 0.0 | 74.0 |
| LnGrp LOS | F | B | A | E | A | A | E | A | E | F | A | E |
| Approach Vol, veh/h | | 2651 | | | 2232 | | | 92 | | | | 50 |
| Approach Delay, s/veh | | 14.5 | | | 3.4 | | | 77.5 | | | | 80.1 |
| Approach LOS | | B | | | A | | | E | | | | F |
| Timer - Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 11.3 | 138.4 | | 20.3 | 18.4 | 131.2 | | 20.3 | | | | |
| Change Period (Y+Rc), s | 7.0 | 7.0 | | 7.5 | 7.0 | 7.0 | | 7.5 | | | | |
| Max Green Setting (Gmax), s | 19.0 | 96.0 | | 33.5 | 19.0 | 96.0 | | 33.5 | | | | |
| Max Q Clear Time (g_c+I1), s | 5.3 | 2.0 | | 8.6 | 11.4 | 48.2 | | 12.7 | | | | |
| Green Ext Time (p_c), s | 0.0 | 37.8 | | 0.3 | 0.1 | 37.1 | | 0.1 | | | | |

Intersection Summary

| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 11.4 |
| HCM 6th LOS | B |

Notes

User approved pedestrian interval to be less than phase max green.

Timings

Existing AM (2021)

2: Ave of the PGA/Central Blvd. & PGA Blvd.

08/18/2021

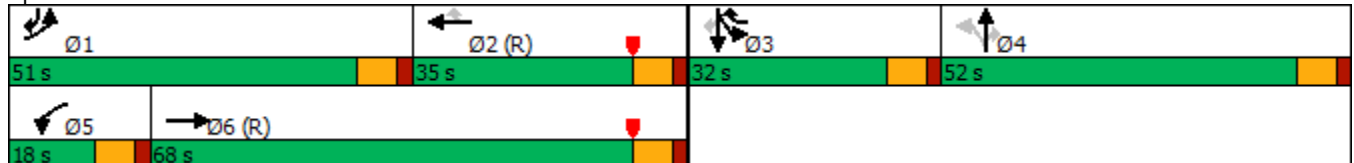


| Lane Group | EBL | EBT | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Lane Configurations | | | | | | | | | | | |
| Traffic Volume (vph) | 640 | 1828 | 54 | 1724 | 478 | 21 | 36 | 46 | 232 | 14 | 926 |
| Future Volume (vph) | 640 | 1828 | 54 | 1724 | 478 | 21 | 36 | 46 | 232 | 14 | 926 |
| Turn Type | Prot | NA | Prot | NA | pm+ov | Perm | NA | Perm | Split | NA | pm+ov |
| Protected Phases | 1 | 6 | 5 | 2 | 3 | | 4 | | 3 | 3 | 1 |
| Permitted Phases | | | | | 2 | 4 | | 4 | | | 3 |
| Detector Phase | 1 | 6 | 5 | 2 | 3 | 4 | 4 | 4 | 3 | 3 | 1 |
| Switch Phase | | | | | | | | | | | |
| Minimum Initial (s) | 4.0 | 20.0 | 4.0 | 20.0 | 5.0 | 4.0 | 4.0 | 4.0 | 5.0 | 5.0 | 4.0 |
| Minimum Split (s) | 12.0 | 27.0 | 12.0 | 27.0 | 12.0 | 25.0 | 25.0 | 25.0 | 12.0 | 12.0 | 12.0 |
| Total Split (s) | 51.0 | 68.0 | 18.0 | 35.0 | 32.0 | 52.0 | 52.0 | 52.0 | 32.0 | 32.0 | 51.0 |
| Total Split (%) | 30.0% | 40.0% | 10.6% | 20.6% | 18.8% | 30.6% | 30.6% | 30.6% | 18.8% | 18.8% | 30.0% |
| Yellow Time (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| All-Red Time (s) | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 |
| Lead/Lag | Lead | Lag | Lead | Lag | Lead | Lag | Lag | Lag | Lead | Lead | Lead |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | C-Max | None | C-Max | None | None | None | None | None | None | None |
| Act Effct Green (s) | 70.0 | 101.3 | 11.0 | 39.6 | 67.1 | | 11.9 | 11.9 | 20.5 | 20.5 | 90.5 |
| Actuated g/C Ratio | 0.41 | 0.60 | 0.06 | 0.23 | 0.39 | | 0.07 | 0.07 | 0.12 | 0.12 | 0.53 |
| v/c Ratio | 0.49 | 0.67 | 0.52 | 1.58 | 0.66 | | 0.58 | 0.19 | 0.66 | 0.65 | 0.90 |
| Control Delay | 48.3 | 18.7 | 91.8 | 305.8 | 25.0 | | 97.1 | 1.7 | 86.6 | 85.7 | 21.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 48.3 | 18.7 | 91.8 | 305.8 | 25.0 | | 97.1 | 1.7 | 86.6 | 85.7 | 21.4 |
| LOS | D | B | F | F | C | | F | A | F | F | C |
| Approach Delay | | 26.3 | | 241.1 | | | 54.5 | | | 35.0 | |
| Approach LOS | | C | | F | | | D | | | C | |

Intersection Summary

Cycle Length: 170
 Actuated Cycle Length: 170
 Offset: 8 (5%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow
 Natural Cycle: 150
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.58
 Intersection Signal Delay: 108.9
 Intersection LOS: F
 Intersection Capacity Utilization 111.5%
 ICU Level of Service H
 Analysis Period (min) 15

Splits and Phases: 2: Ave of the PGA/Central Blvd. & PGA Blvd.





| Lane Group | EBL | EBT | WBL | WBT | WBR | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|-------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 696 | 2019 | 59 | 1874 | 520 | 62 | 50 | 134 | 133 | 1007 |
| v/c Ratio | 0.49 | 0.67 | 0.52 | 1.58 | 0.66 | 0.58 | 0.19 | 0.66 | 0.65 | 0.90 |
| Control Delay | 48.3 | 18.7 | 91.8 | 305.8 | 25.0 | 97.1 | 1.7 | 86.6 | 85.7 | 21.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 48.3 | 18.7 | 91.8 | 305.8 | 25.0 | 97.1 | 1.7 | 86.6 | 85.7 | 21.4 |
| Queue Length 50th (ft) | 315 | 269 | 65 | ~1027 | 227 | 68 | 0 | 151 | 150 | 334 |
| Queue Length 95th (ft) | 350 | 334 | 115 | #1320 | 413 | 121 | 0 | 230 | 227 | 469 |
| Internal Link Dist (ft) | | 1260 | | 818 | | 633 | | | 653 | |
| Turn Bay Length (ft) | 270 | | 350 | | 240 | | 150 | 200 | | |
| Base Capacity (vph) | 1413 | 3025 | 127 | 1184 | 818 | 403 | 536 | 247 | 249 | 1123 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.49 | 0.67 | 0.46 | 1.58 | 0.64 | 0.15 | 0.09 | 0.54 | 0.53 | 0.90 |

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis

Existing AM (2021)

2: Ave of the PGA/Central Blvd. & PGA Blvd.

08/18/2021



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------|------|------|------|------|-------|-------|------|-------|------|-------|------|-------|
| Lane Configurations | ↖↗ | ↕↖↗ | | ↖ | ↕↕↕ | ↗ | | ↕ | ↗ | ↖ | ↕ | ↗ |
| Traffic Volume (vph) | 640 | 1828 | 29 | 54 | 1724 | 478 | 21 | 36 | 46 | 232 | 14 | 926 |
| Future Volume (vph) | 640 | 1828 | 29 | 54 | 1724 | 478 | 21 | 36 | 46 | 232 | 14 | 926 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 7.0 | 7.0 | | 7.0 | 7.0 | 7.0 | | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 |
| Lane Util. Factor | 0.97 | 0.91 | | 1.00 | 0.91 | 1.00 | | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 |
| Frt | 1.00 | 1.00 | | 1.00 | 1.00 | 0.85 | | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | 1.00 | | 0.98 | 1.00 | 0.95 | 0.96 | 1.00 |
| Satd. Flow (prot) | 3433 | 5073 | | 1770 | 5085 | 1583 | | 1829 | 1583 | 1681 | 1694 | 1583 |
| Flt Permitted | 0.95 | 1.00 | | 0.95 | 1.00 | 1.00 | | 0.82 | 1.00 | 0.95 | 0.96 | 1.00 |
| Satd. Flow (perm) | 3433 | 5073 | | 1770 | 5085 | 1583 | | 1526 | 1583 | 1681 | 1694 | 1583 |
| Peak-hour factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 696 | 1987 | 32 | 59 | 1874 | 520 | 23 | 39 | 50 | 252 | 15 | 1007 |
| RTOR Reduction (vph) | 0 | 0 | 0 | 0 | 0 | 170 | 0 | 0 | 47 | 0 | 0 | 282 |
| Lane Group Flow (vph) | 696 | 2019 | 0 | 59 | 1874 | 350 | 0 | 62 | 4 | 134 | 133 | 725 |
| Turn Type | Prot | NA | | Prot | NA | pm+ov | Perm | NA | Perm | Split | NA | pm+ov |
| Protected Phases | 1 | 6 | | 5 | 2 | 3 | | 4 | | 3 | 3 | 1 |
| Permitted Phases | | | | | | 2 | 4 | | 4 | | | 3 |
| Actuated Green, G (s) | 70.0 | 99.9 | | 9.7 | 39.6 | 60.1 | | 11.9 | 11.9 | 20.5 | 20.5 | 90.5 |
| Effective Green, g (s) | 70.0 | 99.9 | | 9.7 | 39.6 | 60.1 | | 11.9 | 11.9 | 20.5 | 20.5 | 90.5 |
| Actuated g/C Ratio | 0.41 | 0.59 | | 0.06 | 0.23 | 0.35 | | 0.07 | 0.07 | 0.12 | 0.12 | 0.53 |
| Clearance Time (s) | 7.0 | 7.0 | | 7.0 | 7.0 | 7.0 | | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Lane Grp Cap (vph) | 1413 | 2981 | | 100 | 1184 | 624 | | 106 | 110 | 202 | 204 | 842 |
| v/s Ratio Prot | 0.20 | 0.40 | | 0.03 | c0.37 | 0.07 | | | | 0.08 | 0.08 | c0.35 |
| v/s Ratio Perm | | | | | | 0.15 | | c0.04 | 0.00 | | | 0.10 |
| v/c Ratio | 0.49 | 0.68 | | 0.59 | 1.58 | 0.56 | | 0.58 | 0.03 | 0.66 | 0.65 | 0.86 |
| Uniform Delay, d1 | 36.9 | 24.0 | | 78.2 | 65.2 | 44.3 | | 76.7 | 73.7 | 71.5 | 71.3 | 34.3 |
| Progression Factor | 1.28 | 0.69 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Incremental Delay, d2 | 0.2 | 1.0 | | 8.6 | 266.3 | 1.2 | | 8.0 | 0.1 | 7.9 | 7.3 | 9.0 |
| Delay (s) | 47.4 | 17.6 | | 86.8 | 331.5 | 45.5 | | 84.6 | 73.8 | 79.4 | 78.6 | 43.4 |
| Level of Service | D | B | | F | F | D | | F | E | E | E | D |
| Approach Delay (s) | | 25.2 | | | 265.0 | | | 79.8 | | | 50.8 | |
| Approach LOS | | C | | | F | | | E | | | D | |

Intersection Summary

| | | | |
|-----------------------------------|--------|---------------------------|------|
| HCM 2000 Control Delay | 120.9 | HCM 2000 Level of Service | F |
| HCM 2000 Volume to Capacity ratio | 1.04 | | |
| Actuated Cycle Length (s) | 170.0 | Sum of lost time (s) | 28.0 |
| Intersection Capacity Utilization | 111.5% | ICU Level of Service | H |
| Analysis Period (min) | 15 | | |

c Critical Lane Group

Timings

1: BallenIsles Dr./Old Palm Dr. & PGA Blvd.

08/18/2021

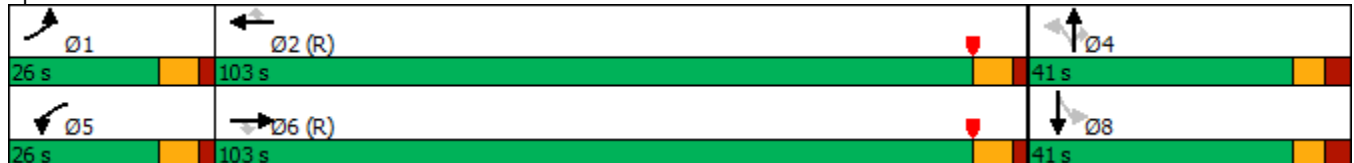


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT |
|----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Lane Configurations | ↖ | ↑↑↑ | ↗ | ↖ | ↑↑↑ | ↗ | | ↑ | ↗ | ↖ | ↗ |
| Traffic Volume (vph) | 36 | 2899 | 54 | 104 | 2352 | 72 | 44 | 1 | 50 | 34 | 0 |
| Future Volume (vph) | 36 | 2899 | 54 | 104 | 2352 | 72 | 44 | 1 | 50 | 34 | 0 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Perm | NA | Perm | Perm | NA |
| Protected Phases | 1 | 6 | | 5 | 2 | | | 4 | | | 8 |
| Permitted Phases | | | 6 | | | 2 | 4 | | 4 | 8 | |
| Detector Phase | 1 | 6 | 6 | 5 | 2 | 2 | 4 | 4 | 4 | 8 | 8 |
| Switch Phase | | | | | | | | | | | |
| Minimum Initial (s) | 4.0 | 15.0 | 15.0 | 4.0 | 15.0 | 15.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Minimum Split (s) | 11.0 | 40.0 | 40.0 | 11.0 | 35.0 | 35.0 | 47.5 | 47.5 | 47.5 | 46.5 | 46.5 |
| Total Split (s) | 26.0 | 103.0 | 103.0 | 26.0 | 103.0 | 103.0 | 41.0 | 41.0 | 41.0 | 41.0 | 41.0 |
| Total Split (%) | 15.3% | 60.6% | 60.6% | 15.3% | 60.6% | 60.6% | 24.1% | 24.1% | 24.1% | 24.1% | 24.1% |
| Yellow Time (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| All-Red Time (s) | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | | 7.5 | 7.5 | 7.5 | 7.5 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | | | | | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | | | | | |
| Recall Mode | None | C-Max | C-Max | None | C-Max | C-Max | None | None | None | None | None |
| Act Effect Green (s) | 9.1 | 120.8 | 120.8 | 16.1 | 130.3 | 130.3 | | 11.6 | 11.6 | 11.6 | 11.6 |
| Actuated g/C Ratio | 0.05 | 0.71 | 0.71 | 0.09 | 0.77 | 0.77 | | 0.07 | 0.07 | 0.07 | 0.07 |
| v/c Ratio | 0.41 | 0.87 | 0.05 | 0.68 | 0.66 | 0.06 | | 0.54 | 0.31 | 0.40 | 0.07 |
| Control Delay | 89.8 | 23.5 | 1.3 | 52.1 | 36.1 | 7.3 | | 96.8 | 11.6 | 87.2 | 0.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 89.8 | 23.5 | 1.3 | 52.1 | 36.1 | 7.3 | | 96.8 | 11.6 | 87.2 | 0.5 |
| LOS | F | C | A | D | D | A | | F | B | F | A |
| Approach Delay | | 23.9 | | | 35.9 | | | 52.2 | | | 56.8 |
| Approach LOS | | C | | | D | | | D | | | E |

Intersection Summary

Cycle Length: 170
 Actuated Cycle Length: 170
 Offset: 27 (16%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow
 Natural Cycle: 150
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.87
 Intersection Signal Delay: 30.1
 Intersection LOS: C
 Intersection Capacity Utilization 88.8%
 ICU Level of Service E
 Analysis Period (min) 15

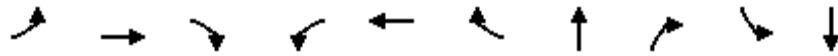
Splits and Phases: 1: BallenIsles Dr./Old Palm Dr. & PGA Blvd.



Queues

1: BallenIsles Dr./Old Palm Dr. & PGA Blvd.

08/18/2021



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBT | NBR | SBL | SBT |
|-------------------------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 39 | 3151 | 59 | 113 | 2557 | 78 | 49 | 54 | 37 | 20 |
| v/c Ratio | 0.41 | 0.87 | 0.05 | 0.68 | 0.66 | 0.06 | 0.54 | 0.31 | 0.40 | 0.07 |
| Control Delay | 89.8 | 23.5 | 1.3 | 52.1 | 36.1 | 7.3 | 96.8 | 11.6 | 87.2 | 0.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 89.8 | 23.5 | 1.3 | 52.1 | 36.1 | 7.3 | 96.8 | 11.6 | 87.2 | 0.5 |
| Queue Length 50th (ft) | 43 | 911 | 0 | 129 | 713 | 11 | 54 | 0 | 40 | 0 |
| Queue Length 95th (ft) | 85 | 1212 | 12 | m77 | m301 | m5 | 101 | 29 | 81 | 0 |
| Internal Link Dist (ft) | | 1128 | | | 1260 | | 383 | | | 307 |
| Turn Bay Length (ft) | 275 | | 110 | 450 | | 280 | | | | |
| Base Capacity (vph) | 197 | 3612 | 1146 | 203 | 3897 | 1230 | 262 | 368 | 266 | 458 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.20 | 0.87 | 0.05 | 0.56 | 0.66 | 0.06 | 0.19 | 0.15 | 0.14 | 0.04 |

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th Signalized Intersection Summary
 1: BallenIsles Dr./Old Palm Dr. & PGA Blvd.

Future Background AM (2026)

08/18/2021



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|-------|-------|------|------|------|-------|------|------|------|------|------|------|
| Lane Configurations | ↖ | ↑↑↑ | ↗ | ↖ | ↑↑↑ | ↗ | | ↑ | ↗ | ↖ | ↗ | |
| Traffic Volume (veh/h) | 36 | 2899 | 54 | 104 | 2352 | 72 | 44 | 1 | 50 | 34 | 0 | 18 |
| Future Volume (veh/h) | 36 | 2899 | 54 | 104 | 2352 | 72 | 44 | 1 | 50 | 34 | 0 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 39 | 3151 | 59 | 113 | 2557 | 78 | 48 | 1 | 54 | 37 | 0 | 20 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 51 | 3651 | 1133 | 132 | 3884 | 1206 | 142 | 3 | 134 | 96 | 0 | 134 |
| Arrive On Green | 0.03 | 0.71 | 0.71 | 0.15 | 1.00 | 1.00 | 0.08 | 0.08 | 0.08 | 0.08 | 0.00 | 0.08 |
| Sat Flow, veh/h | 1781 | 5106 | 1585 | 1781 | 5106 | 1585 | 1184 | 30 | 1585 | 1349 | 0 | 1585 |
| Grp Volume(v), veh/h | 39 | 3151 | 59 | 113 | 2557 | 78 | 49 | 0 | 54 | 37 | 0 | 20 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1702 | 1585 | 1781 | 1702 | 1585 | 1214 | 0 | 1585 | 1349 | 0 | 1585 |
| Q Serve(g_s), s | 3.7 | 78.1 | 1.9 | 10.5 | 0.0 | 0.0 | 5.7 | 0.0 | 5.5 | 4.6 | 0.0 | 2.0 |
| Cycle Q Clear(g_c), s | 3.7 | 78.1 | 1.9 | 10.5 | 0.0 | 0.0 | 7.6 | 0.0 | 5.5 | 12.2 | 0.0 | 2.0 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 0.98 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 51 | 3651 | 1133 | 132 | 3884 | 1206 | 144 | 0 | 134 | 96 | 0 | 134 |
| V/C Ratio(X) | 0.77 | 0.86 | 0.05 | 0.86 | 0.66 | 0.06 | 0.34 | 0.00 | 0.40 | 0.39 | 0.00 | 0.15 |
| Avail Cap(c_a), veh/h | 199 | 3651 | 1133 | 199 | 3884 | 1206 | 302 | 0 | 312 | 248 | 0 | 312 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l) | 1.00 | 1.00 | 1.00 | 0.09 | 0.09 | 0.09 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 82.0 | 18.0 | 7.2 | 71.5 | 0.0 | 0.0 | 75.6 | 0.0 | 73.8 | 80.6 | 0.0 | 72.2 |
| Incr Delay (d2), s/veh | 21.4 | 3.0 | 0.1 | 2.3 | 0.1 | 0.0 | 1.4 | 0.0 | 1.9 | 2.5 | 0.0 | 0.5 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 2.0 | 30.0 | 0.7 | 4.6 | 0.0 | 0.0 | 2.1 | 0.0 | 2.3 | 1.7 | 0.0 | 0.8 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 103.4 | 21.0 | 7.3 | 73.8 | 0.1 | 0.0 | 77.0 | 0.0 | 75.7 | 83.1 | 0.0 | 72.7 |
| LnGrp LOS | F | C | A | E | A | A | E | A | E | F | A | E |
| Approach Vol, veh/h | | 3249 | | | 2748 | | | 103 | | | | 57 |
| Approach Delay, s/veh | | 21.7 | | | 3.1 | | | 76.3 | | | | 79.4 |
| Approach LOS | | C | | | A | | | E | | | | E |
| Timer - Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 11.8 | 136.3 | | 21.8 | 19.6 | 128.6 | | 21.8 | | | | |
| Change Period (Y+Rc), s | 7.0 | 7.0 | | 7.5 | 7.0 | 7.0 | | 7.5 | | | | |
| Max Green Setting (Gmax), s | 19.0 | 96.0 | | 33.5 | 19.0 | 96.0 | | 33.5 | | | | |
| Max Q Clear Time (g_c+I1), s | 5.7 | 2.0 | | 9.6 | 12.5 | 80.1 | | 14.2 | | | | |
| Green Ext Time (p_c), s | 0.0 | 59.4 | | 0.4 | 0.1 | 15.4 | | 0.1 | | | | |

Intersection Summary

| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 14.9 |
| HCM 6th LOS | B |

Notes

User approved pedestrian interval to be less than phase max green.

Timings

Future Background AM (2026)

2: Ave of the PGA/Central Blvd. & PGA Blvd.

08/18/2021

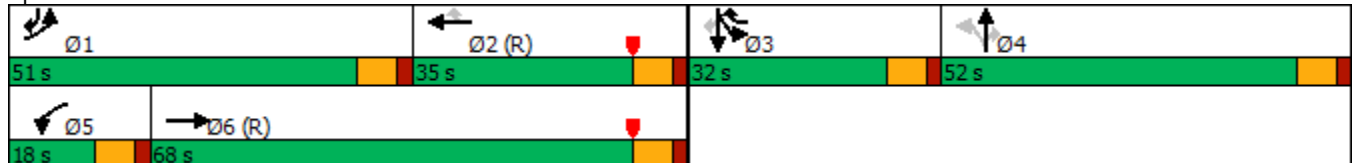


| Lane Group | EBL | EBT | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Lane Configurations | | | | | | | | | | | |
| Traffic Volume (vph) | 904 | 2110 | 61 | 2034 | 541 | 24 | 40 | 52 | 290 | 16 | 1110 |
| Future Volume (vph) | 904 | 2110 | 61 | 2034 | 541 | 24 | 40 | 52 | 290 | 16 | 1110 |
| Turn Type | Prot | NA | Prot | NA | pm+ov | Perm | NA | Perm | Split | NA | pm+ov |
| Protected Phases | 1 | 6 | 5 | 2 | 3 | | 4 | | 3 | 3 | 1 |
| Permitted Phases | | | | | 2 | 4 | | 4 | | | 3 |
| Detector Phase | 1 | 6 | 5 | 2 | 3 | 4 | 4 | 4 | 3 | 3 | 1 |
| Switch Phase | | | | | | | | | | | |
| Minimum Initial (s) | 4.0 | 20.0 | 4.0 | 20.0 | 5.0 | 4.0 | 4.0 | 4.0 | 5.0 | 5.0 | 4.0 |
| Minimum Split (s) | 12.0 | 27.0 | 12.0 | 27.0 | 12.0 | 25.0 | 25.0 | 25.0 | 12.0 | 12.0 | 12.0 |
| Total Split (s) | 51.0 | 68.0 | 18.0 | 35.0 | 32.0 | 52.0 | 52.0 | 52.0 | 32.0 | 32.0 | 51.0 |
| Total Split (%) | 30.0% | 40.0% | 10.6% | 20.6% | 18.8% | 30.6% | 30.6% | 30.6% | 18.8% | 18.8% | 30.0% |
| Yellow Time (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| All-Red Time (s) | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 |
| Lead/Lag | Lead | Lag | Lead | Lag | Lead | Lag | Lag | Lag | Lead | Lead | Lead |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | C-Max | None | C-Max | None | None | None | None | None | None | None |
| Act Effct Green (s) | 78.3 | 95.0 | 11.7 | 28.4 | 57.8 | | 12.8 | 12.8 | 22.5 | 22.5 | 100.8 |
| Actuated g/C Ratio | 0.46 | 0.56 | 0.07 | 0.17 | 0.34 | | 0.08 | 0.08 | 0.13 | 0.13 | 0.59 |
| v/c Ratio | 0.62 | 0.82 | 0.55 | 2.61 | 0.84 | | 0.61 | 0.21 | 0.75 | 0.74 | 1.02 |
| Control Delay | 47.0 | 27.7 | 92.3 | 750.8 | 40.0 | | 97.7 | 1.8 | 91.7 | 90.2 | 47.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 47.0 | 27.7 | 92.3 | 750.8 | 40.0 | | 97.7 | 1.8 | 91.7 | 90.2 | 47.1 |
| LOS | D | C | F | F | D | | F | A | F | F | D |
| Approach Delay | | 33.4 | | 589.7 | | | 54.4 | | | 56.6 | |
| Approach LOS | | C | | F | | | D | | | E | |

Intersection Summary

Cycle Length: 170
 Actuated Cycle Length: 170
 Offset: 8 (5%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow
 Natural Cycle: 150
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 2.61
 Intersection Signal Delay: 241.5
 Intersection Capacity Utilization 129.0%
 Analysis Period (min) 15
 Intersection LOS: F
 ICU Level of Service H

Splits and Phases: 2: Ave of the PGA/Central Blvd. & PGA Blvd.





| Lane Group | EBL | EBT | WBL | WBT | WBR | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|-------|------|------|------|------|------|-------|
| Lane Group Flow (vph) | 983 | 2329 | 66 | 2211 | 588 | 69 | 57 | 167 | 165 | 1207 |
| v/c Ratio | 0.62 | 0.82 | 0.55 | 2.61 | 0.84 | 0.61 | 0.21 | 0.75 | 0.74 | 1.02 |
| Control Delay | 47.0 | 27.7 | 92.3 | 750.8 | 40.0 | 97.7 | 1.8 | 91.7 | 90.2 | 47.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 47.0 | 27.7 | 92.3 | 750.8 | 40.0 | 97.7 | 1.8 | 91.7 | 90.2 | 47.1 |
| Queue Length 50th (ft) | 395 | 342 | 73 | ~1513 | 370 | 76 | 0 | 188 | 186 | -665 |
| Queue Length 95th (ft) | 517 | 801 | 125 | #1597 | 552 | 131 | 0 | 283 | 278 | #1554 |
| Internal Link Dist (ft) | | 1260 | | 818 | | 633 | | | 653 | |
| Turn Bay Length (ft) | 270 | | 350 | | 240 | | 150 | 200 | | |
| Base Capacity (vph) | 1581 | 2836 | 132 | 848 | 724 | 396 | 536 | 247 | 249 | 1179 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.62 | 0.82 | 0.50 | 2.61 | 0.81 | 0.17 | 0.11 | 0.68 | 0.66 | 1.02 |

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis

Future Background AM (2026)

2: Ave of the PGA/Central Blvd. & PGA Blvd.

08/18/2021



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------|------|------|------|------|-------|-------|------|-------|------|-------|------|-------|
| Lane Configurations | ↔↔ | ↑↑↑ | | ↔ | ↑↑↑ | ↔ | | ↔ | ↔ | ↔ | ↔ | ↔ |
| Traffic Volume (vph) | 904 | 2110 | 33 | 61 | 2034 | 541 | 24 | 40 | 52 | 290 | 16 | 1110 |
| Future Volume (vph) | 904 | 2110 | 33 | 61 | 2034 | 541 | 24 | 40 | 52 | 290 | 16 | 1110 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 7.0 | 7.0 | | 7.0 | 7.0 | 7.0 | | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 |
| Lane Util. Factor | 0.97 | 0.91 | | 1.00 | 0.91 | 1.00 | | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 |
| Frt | 1.00 | 1.00 | | 1.00 | 1.00 | 0.85 | | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | 1.00 | | 0.98 | 1.00 | 0.95 | 0.96 | 1.00 |
| Satd. Flow (prot) | 3433 | 5074 | | 1770 | 5085 | 1583 | | 1828 | 1583 | 1681 | 1694 | 1583 |
| Flt Permitted | 0.95 | 1.00 | | 0.95 | 1.00 | 1.00 | | 0.80 | 1.00 | 0.95 | 0.96 | 1.00 |
| Satd. Flow (perm) | 3433 | 5074 | | 1770 | 5085 | 1583 | | 1495 | 1583 | 1681 | 1694 | 1583 |
| Peak-hour factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 983 | 2293 | 36 | 66 | 2211 | 588 | 26 | 43 | 57 | 315 | 17 | 1207 |
| RTOR Reduction (vph) | 0 | 0 | 0 | 0 | 0 | 177 | 0 | 0 | 53 | 0 | 0 | 242 |
| Lane Group Flow (vph) | 983 | 2329 | 0 | 66 | 2211 | 411 | 0 | 69 | 4 | 167 | 165 | 965 |
| Turn Type | Prot | NA | | Prot | NA | pm+ov | Perm | NA | Perm | Split | NA | pm+ov |
| Protected Phases | 1 | 6 | | 5 | 2 | 3 | | 4 | | 3 | 3 | 1 |
| Permitted Phases | | | | | | 2 | 4 | | 4 | | | 3 |
| Actuated Green, G (s) | 78.3 | 95.0 | | 11.7 | 28.4 | 50.9 | | 12.8 | 12.8 | 22.5 | 22.5 | 100.8 |
| Effective Green, g (s) | 78.3 | 95.0 | | 11.7 | 28.4 | 50.9 | | 12.8 | 12.8 | 22.5 | 22.5 | 100.8 |
| Actuated g/C Ratio | 0.46 | 0.56 | | 0.07 | 0.17 | 0.30 | | 0.08 | 0.08 | 0.13 | 0.13 | 0.59 |
| Clearance Time (s) | 7.0 | 7.0 | | 7.0 | 7.0 | 7.0 | | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Lane Grp Cap (vph) | 1581 | 2835 | | 121 | 849 | 539 | | 112 | 119 | 222 | 224 | 938 |
| v/s Ratio Prot | 0.29 | 0.46 | | 0.04 | c0.43 | 0.10 | | | | 0.10 | 0.10 | c0.47 |
| v/s Ratio Perm | | | | | | 0.16 | | c0.05 | 0.00 | | | 0.14 |
| v/c Ratio | 0.62 | 0.82 | | 0.55 | 2.60 | 0.76 | | 0.62 | 0.04 | 0.75 | 0.74 | 1.03 |
| Uniform Delay, d1 | 34.7 | 30.6 | | 76.6 | 70.8 | 54.1 | | 76.2 | 72.9 | 71.1 | 70.9 | 34.6 |
| Progression Factor | 1.28 | 0.81 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Incremental Delay, d2 | 0.4 | 1.5 | | 4.9 | 725.3 | 6.3 | | 9.7 | 0.1 | 13.4 | 11.9 | 37.0 |
| Delay (s) | 44.8 | 26.2 | | 81.5 | 796.1 | 60.4 | | 85.9 | 73.0 | 84.5 | 82.8 | 71.6 |
| Level of Service | D | C | | F | F | E | | F | E | F | F | E |
| Approach Delay (s) | | 31.7 | | | 628.7 | | | 80.1 | | | 74.2 | |
| Approach LOS | | C | | | F | | | F | | | E | |

Intersection Summary

| | | | |
|-----------------------------------|--------|---------------------------|------|
| HCM 2000 Control Delay | 258.9 | HCM 2000 Level of Service | F |
| HCM 2000 Volume to Capacity ratio | 1.31 | | |
| Actuated Cycle Length (s) | 170.0 | Sum of lost time (s) | 28.0 |
| Intersection Capacity Utilization | 129.0% | ICU Level of Service | H |
| Analysis Period (min) | 15 | | |

c Critical Lane Group

Timings

Future Total AM (2026)

1: BallenIsles Dr./Old Palm Dr. & PGA Blvd.

09/03/2021

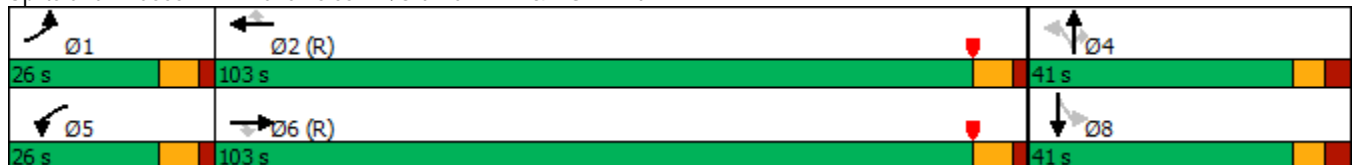


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT |
|----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Lane Configurations | ↖ | ↑↑↑ | ↗ | ↖ | ↑↑↑ | ↗ | | ↑ | ↗ | ↖ | ↗ |
| Traffic Volume (vph) | 36 | 2899 | 61 | 142 | 2352 | 72 | 47 | 1 | 68 | 34 | 0 |
| Future Volume (vph) | 36 | 2899 | 61 | 142 | 2352 | 72 | 47 | 1 | 68 | 34 | 0 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Perm | NA | Perm | Perm | NA |
| Protected Phases | 1 | 6 | | 5 | 2 | | | 4 | | | 8 |
| Permitted Phases | | | 6 | | | 2 | 4 | | 4 | 8 | |
| Detector Phase | 1 | 6 | 6 | 5 | 2 | 2 | 4 | 4 | 4 | 8 | 8 |
| Switch Phase | | | | | | | | | | | |
| Minimum Initial (s) | 4.0 | 15.0 | 15.0 | 4.0 | 15.0 | 15.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Minimum Split (s) | 11.0 | 40.0 | 40.0 | 11.0 | 35.0 | 35.0 | 47.5 | 47.5 | 47.5 | 46.5 | 46.5 |
| Total Split (s) | 26.0 | 103.0 | 103.0 | 26.0 | 103.0 | 103.0 | 41.0 | 41.0 | 41.0 | 41.0 | 41.0 |
| Total Split (%) | 15.3% | 60.6% | 60.6% | 15.3% | 60.6% | 60.6% | 24.1% | 24.1% | 24.1% | 24.1% | 24.1% |
| Yellow Time (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| All-Red Time (s) | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | | 7.5 | 7.5 | 7.5 | 7.5 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | | | | | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | | | | | |
| Recall Mode | None | C-Max | C-Max | None | C-Max | C-Max | None | None | None | None | None |
| Act Effect Green (s) | 9.1 | 116.0 | 116.0 | 20.5 | 129.9 | 129.9 | | 12.0 | 12.0 | 12.0 | 12.0 |
| Actuated g/C Ratio | 0.05 | 0.68 | 0.68 | 0.12 | 0.76 | 0.76 | | 0.07 | 0.07 | 0.07 | 0.07 |
| v/c Ratio | 0.41 | 0.91 | 0.06 | 0.72 | 0.66 | 0.06 | | 0.55 | 0.41 | 0.39 | 0.07 |
| Control Delay | 89.8 | 28.5 | 2.0 | 53.1 | 36.5 | 7.4 | | 97.1 | 20.7 | 85.8 | 0.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 89.8 | 28.5 | 2.0 | 53.1 | 36.5 | 7.4 | | 97.1 | 20.7 | 85.8 | 0.5 |
| LOS | F | C | A | D | D | A | | F | C | F | A |
| Approach Delay | | 28.7 | | | 36.6 | | | 52.2 | | | 55.9 |
| Approach LOS | | C | | | D | | | D | | | E |

Intersection Summary

Cycle Length: 170
 Actuated Cycle Length: 170
 Offset: 27 (16%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow
 Natural Cycle: 150
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.91
 Intersection Signal Delay: 33.0
 Intersection LOS: C
 Intersection Capacity Utilization 91.1%
 ICU Level of Service F
 Analysis Period (min) 15

Splits and Phases: 1: BallenIsles Dr./Old Palm Dr. & PGA Blvd.

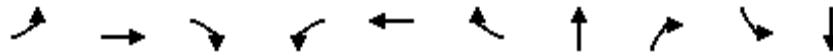


Queues

Future Total AM (2026)

1: BallenIsles Dr./Old Palm Dr. & PGA Blvd.

09/03/2021



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBT | NBR | SBL | SBT |
|-------------------------|------|-------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 39 | 3151 | 66 | 154 | 2557 | 78 | 52 | 74 | 37 | 20 |
| v/c Ratio | 0.41 | 0.91 | 0.06 | 0.72 | 0.66 | 0.06 | 0.55 | 0.41 | 0.39 | 0.07 |
| Control Delay | 89.8 | 28.5 | 2.0 | 53.1 | 36.5 | 7.4 | 97.1 | 20.7 | 85.8 | 0.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 89.8 | 28.5 | 2.0 | 53.1 | 36.5 | 7.4 | 97.1 | 20.7 | 85.8 | 0.5 |
| Queue Length 50th (ft) | 43 | 1017 | 0 | 177 | 716 | 11 | 57 | 0 | 40 | 0 |
| Queue Length 95th (ft) | 85 | #1399 | 17 | m105 | m297 | m5 | 105 | 54 | 81 | 0 |
| Internal Link Dist (ft) | | 1128 | | | 1260 | | 383 | | | 307 |
| Turn Bay Length (ft) | 275 | | 110 | 450 | | 280 | | | | |
| Base Capacity (vph) | 197 | 3469 | 1103 | 226 | 3885 | 1226 | 262 | 371 | 265 | 458 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.20 | 0.91 | 0.06 | 0.68 | 0.66 | 0.06 | 0.20 | 0.20 | 0.14 | 0.04 |

Intersection Summary

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

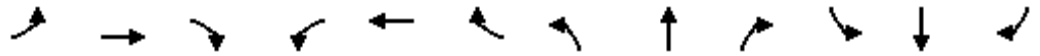
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th Signalized Intersection Summary
 1: BallenIsles Dr./Old Palm Dr. & PGA Blvd.

Future Total AM (2026)

09/03/2021



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|-------|-------|------|------|------|-------|------|------|------|------|------|------|
| Lane Configurations | ↖ | ↑↑↑ | ↗ | ↖ | ↑↑↑ | ↗ | | ↑ | ↗ | ↖ | ↗ | |
| Traffic Volume (veh/h) | 36 | 2899 | 61 | 142 | 2352 | 72 | 47 | 1 | 68 | 34 | 0 | 18 |
| Future Volume (veh/h) | 36 | 2899 | 61 | 142 | 2352 | 72 | 47 | 1 | 68 | 34 | 0 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 39 | 3151 | 66 | 154 | 2557 | 78 | 51 | 1 | 74 | 37 | 0 | 20 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 51 | 3522 | 1093 | 172 | 3871 | 1202 | 146 | 2 | 138 | 96 | 0 | 138 |
| Arrive On Green | 0.03 | 0.69 | 0.69 | 0.19 | 1.00 | 1.00 | 0.09 | 0.09 | 0.09 | 0.09 | 0.00 | 0.09 |
| Sat Flow, veh/h | 1781 | 5106 | 1585 | 1781 | 5106 | 1585 | 1191 | 28 | 1585 | 1325 | 0 | 1585 |
| Grp Volume(v), veh/h | 39 | 3151 | 66 | 154 | 2557 | 78 | 52 | 0 | 74 | 37 | 0 | 20 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1702 | 1585 | 1781 | 1702 | 1585 | 1219 | 0 | 1585 | 1325 | 0 | 1585 |
| Q Serve(g_s), s | 3.7 | 85.0 | 2.3 | 14.3 | 0.0 | 0.0 | 6.0 | 0.0 | 7.6 | 4.7 | 0.0 | 2.0 |
| Cycle Q Clear(g_c), s | 3.7 | 85.0 | 2.3 | 14.3 | 0.0 | 0.0 | 8.0 | 0.0 | 7.6 | 12.6 | 0.0 | 2.0 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 0.98 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 51 | 3522 | 1093 | 172 | 3871 | 1202 | 148 | 0 | 138 | 96 | 0 | 138 |
| V/C Ratio(X) | 0.77 | 0.89 | 0.06 | 0.90 | 0.66 | 0.06 | 0.35 | 0.00 | 0.54 | 0.39 | 0.00 | 0.14 |
| Avail Cap(c_a), veh/h | 199 | 3522 | 1093 | 199 | 3871 | 1202 | 302 | 0 | 312 | 241 | 0 | 312 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l) | 1.00 | 1.00 | 1.00 | 0.09 | 0.09 | 0.09 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 82.0 | 21.4 | 8.5 | 67.7 | 0.0 | 0.0 | 75.4 | 0.0 | 74.3 | 80.5 | 0.0 | 71.7 |
| Incr Delay (d2), s/veh | 21.4 | 4.0 | 0.1 | 4.7 | 0.1 | 0.0 | 1.4 | 0.0 | 3.2 | 2.5 | 0.0 | 0.5 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 2.0 | 33.6 | 0.8 | 6.2 | 0.0 | 0.0 | 2.3 | 0.0 | 3.2 | 1.7 | 0.0 | 0.8 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 103.4 | 25.4 | 8.6 | 72.4 | 0.1 | 0.0 | 76.8 | 0.0 | 77.5 | 83.1 | 0.0 | 72.2 |
| LnGrp LOS | F | C | A | E | A | A | E | A | E | F | A | E |
| Approach Vol, veh/h | | 3256 | | | 2789 | | | 126 | | | | 57 |
| Approach Delay, s/veh | | 25.9 | | | 4.1 | | | 77.2 | | | | 79.3 |
| Approach LOS | | C | | | A | | | E | | | | E |
| Timer - Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 11.8 | 135.9 | | 22.3 | 23.4 | 124.3 | | 22.3 | | | | |
| Change Period (Y+Rc), s | 7.0 | 7.0 | | 7.5 | 7.0 | 7.0 | | 7.5 | | | | |
| Max Green Setting (Gmax), s | 19.0 | 96.0 | | 33.5 | 19.0 | 96.0 | | 33.5 | | | | |
| Max Q Clear Time (g_c+I1), s | 5.7 | 2.0 | | 10.0 | 16.3 | 87.0 | | 14.6 | | | | |
| Green Ext Time (p_c), s | 0.0 | 59.4 | | 0.5 | 0.1 | 8.8 | | 0.1 | | | | |

Intersection Summary

| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 17.7 |
| HCM 6th LOS | B |

Notes

User approved pedestrian interval to be less than phase max green.

Timings

Future Total AM (2026)

2: Ave of the PGA/Central Blvd. & PGA Blvd.

09/03/2021

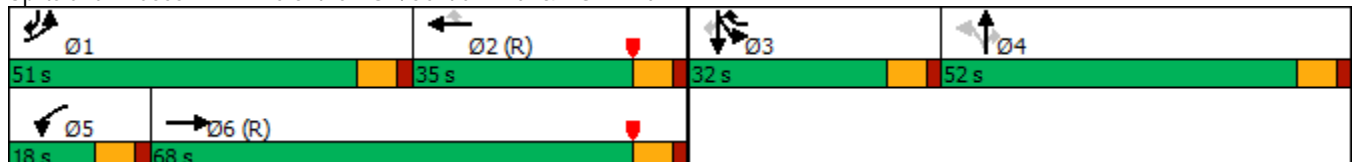


| Lane Group | EBL | EBT | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Lane Configurations | | | | | | | | | | | |
| Traffic Volume (vph) | 907 | 2124 | 61 | 2062 | 541 | 24 | 40 | 52 | 290 | 16 | 1116 |
| Future Volume (vph) | 907 | 2124 | 61 | 2062 | 541 | 24 | 40 | 52 | 290 | 16 | 1116 |
| Turn Type | Prot | NA | Prot | NA | pm+ov | Perm | NA | Perm | Split | NA | pm+ov |
| Protected Phases | 1 | 6 | 5 | 2 | 3 | | 4 | | 3 | 3 | 1 |
| Permitted Phases | | | | | 2 | 4 | | 4 | | | 3 |
| Detector Phase | 1 | 6 | 5 | 2 | 3 | 4 | 4 | 4 | 3 | 3 | 1 |
| Switch Phase | | | | | | | | | | | |
| Minimum Initial (s) | 4.0 | 20.0 | 4.0 | 20.0 | 5.0 | 4.0 | 4.0 | 4.0 | 5.0 | 5.0 | 4.0 |
| Minimum Split (s) | 12.0 | 27.0 | 12.0 | 27.0 | 12.0 | 25.0 | 25.0 | 25.0 | 12.0 | 12.0 | 12.0 |
| Total Split (s) | 51.0 | 68.0 | 18.0 | 35.0 | 32.0 | 52.0 | 52.0 | 52.0 | 32.0 | 32.0 | 51.0 |
| Total Split (%) | 30.0% | 40.0% | 10.6% | 20.6% | 18.8% | 30.6% | 30.6% | 30.6% | 18.8% | 18.8% | 30.0% |
| Yellow Time (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| All-Red Time (s) | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 |
| Lead/Lag | Lead | Lag | Lead | Lag | Lead | Lag | Lag | Lag | Lead | Lead | Lead |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | C-Max | None | C-Max | None | None | None | None | None | None | None |
| Act Effct Green (s) | 78.3 | 95.0 | 11.7 | 28.4 | 57.8 | | 12.8 | 12.8 | 22.5 | 22.5 | 100.8 |
| Actuated g/C Ratio | 0.46 | 0.56 | 0.07 | 0.17 | 0.34 | | 0.08 | 0.08 | 0.13 | 0.13 | 0.59 |
| v/c Ratio | 0.62 | 0.83 | 0.55 | 2.64 | 0.84 | | 0.61 | 0.21 | 0.75 | 0.74 | 1.03 |
| Control Delay | 50.3 | 29.4 | 92.3 | 766.3 | 40.6 | | 97.7 | 1.8 | 91.7 | 90.2 | 48.7 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 50.3 | 29.4 | 92.3 | 766.3 | 40.6 | | 97.7 | 1.8 | 91.7 | 90.2 | 48.7 |
| LOS | D | C | F | F | D | | F | A | F | F | D |
| Approach Delay | | 35.6 | | 603.6 | | | 54.4 | | | 57.8 | |
| Approach LOS | | D | | F | | | D | | | E | |

Intersection Summary

Cycle Length: 170
 Actuated Cycle Length: 170
 Offset: 8 (5%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow
 Natural Cycle: 150
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 2.64
 Intersection Signal Delay: 248.4
 Intersection LOS: F
 Intersection Capacity Utilization 129.9%
 ICU Level of Service H
 Analysis Period (min) 15

Splits and Phases: 2: Ave of the PGA/Central Blvd. & PGA Blvd.





| Lane Group | EBL | EBT | WBL | WBT | WBR | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|-------|------|------|------|------|------|-------|
| Lane Group Flow (vph) | 986 | 2345 | 66 | 2241 | 588 | 69 | 57 | 167 | 165 | 1213 |
| v/c Ratio | 0.62 | 0.83 | 0.55 | 2.64 | 0.84 | 0.61 | 0.21 | 0.75 | 0.74 | 1.03 |
| Control Delay | 50.3 | 29.4 | 92.3 | 766.3 | 40.6 | 97.7 | 1.8 | 91.7 | 90.2 | 48.7 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 50.3 | 29.4 | 92.3 | 766.3 | 40.6 | 97.7 | 1.8 | 91.7 | 90.2 | 48.7 |
| Queue Length 50th (ft) | 424 | 393 | 73 | ~1539 | 374 | 76 | 0 | 188 | 186 | ~711 |
| Queue Length 95th (ft) | m537 | 779 | 125 | #1622 | 557 | 131 | 0 | 283 | 278 | #1568 |
| Internal Link Dist (ft) | | 1260 | | 818 | | 633 | | | 653 | |
| Turn Bay Length (ft) | 270 | | 350 | | 240 | | 150 | 200 | | |
| Base Capacity (vph) | 1581 | 2836 | 132 | 848 | 722 | 396 | 536 | 247 | 249 | 1179 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.62 | 0.83 | 0.50 | 2.64 | 0.81 | 0.17 | 0.11 | 0.68 | 0.66 | 1.03 |

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis

Future Total AM (2026)

2: Ave of the PGA/Central Blvd. & PGA Blvd.

09/03/2021



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------|------|------|------|------|-------|-------|------|-------|------|-------|------|-------|
| Lane Configurations | ↔↔ | ↑↑↑ | | ↔ | ↑↑↑ | ↔ | | ↑ | ↔ | ↔ | ↑ | ↔ |
| Traffic Volume (vph) | 907 | 2124 | 33 | 61 | 2062 | 541 | 24 | 40 | 52 | 290 | 16 | 1116 |
| Future Volume (vph) | 907 | 2124 | 33 | 61 | 2062 | 541 | 24 | 40 | 52 | 290 | 16 | 1116 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 7.0 | 7.0 | | 7.0 | 7.0 | 7.0 | | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 |
| Lane Util. Factor | 0.97 | 0.91 | | 1.00 | 0.91 | 1.00 | | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 |
| Frt | 1.00 | 1.00 | | 1.00 | 1.00 | 0.85 | | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | 1.00 | | 0.98 | 1.00 | 0.95 | 0.96 | 1.00 |
| Satd. Flow (prot) | 3433 | 5074 | | 1770 | 5085 | 1583 | | 1828 | 1583 | 1681 | 1694 | 1583 |
| Flt Permitted | 0.95 | 1.00 | | 0.95 | 1.00 | 1.00 | | 0.80 | 1.00 | 0.95 | 0.96 | 1.00 |
| Satd. Flow (perm) | 3433 | 5074 | | 1770 | 5085 | 1583 | | 1495 | 1583 | 1681 | 1694 | 1583 |
| Peak-hour factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 986 | 2309 | 36 | 66 | 2241 | 588 | 26 | 43 | 57 | 315 | 17 | 1213 |
| RTOR Reduction (vph) | 0 | 0 | 0 | 0 | 0 | 174 | 0 | 0 | 53 | 0 | 0 | 242 |
| Lane Group Flow (vph) | 986 | 2345 | 0 | 66 | 2241 | 414 | 0 | 69 | 4 | 167 | 165 | 971 |
| Turn Type | Prot | NA | | Prot | NA | pm+ov | Perm | NA | Perm | Split | NA | pm+ov |
| Protected Phases | 1 | 6 | | 5 | 2 | 3 | | 4 | | 3 | 3 | 1 |
| Permitted Phases | | | | | | 2 | 4 | | 4 | | | 3 |
| Actuated Green, G (s) | 78.3 | 95.0 | | 11.7 | 28.4 | 50.9 | | 12.8 | 12.8 | 22.5 | 22.5 | 100.8 |
| Effective Green, g (s) | 78.3 | 95.0 | | 11.7 | 28.4 | 50.9 | | 12.8 | 12.8 | 22.5 | 22.5 | 100.8 |
| Actuated g/C Ratio | 0.46 | 0.56 | | 0.07 | 0.17 | 0.30 | | 0.08 | 0.08 | 0.13 | 0.13 | 0.59 |
| Clearance Time (s) | 7.0 | 7.0 | | 7.0 | 7.0 | 7.0 | | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Lane Grp Cap (vph) | 1581 | 2835 | | 121 | 849 | 539 | | 112 | 119 | 222 | 224 | 938 |
| v/s Ratio Prot | 0.29 | 0.46 | | 0.04 | c0.44 | 0.10 | | | | 0.10 | 0.10 | c0.48 |
| v/s Ratio Perm | | | | | | 0.16 | | c0.05 | 0.00 | | | 0.14 |
| v/c Ratio | 0.62 | 0.83 | | 0.55 | 2.64 | 0.77 | | 0.62 | 0.04 | 0.75 | 0.74 | 1.04 |
| Uniform Delay, d1 | 34.7 | 30.8 | | 76.6 | 70.8 | 54.2 | | 76.2 | 72.9 | 71.1 | 70.9 | 34.6 |
| Progression Factor | 1.37 | 0.86 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Incremental Delay, d2 | 0.4 | 1.4 | | 4.9 | 741.2 | 6.5 | | 9.7 | 0.1 | 13.4 | 11.9 | 38.9 |
| Delay (s) | 48.0 | 27.9 | | 81.5 | 812.0 | 60.7 | | 85.9 | 73.0 | 84.5 | 82.8 | 73.5 |
| Level of Service | D | C | | F | F | E | | F | E | F | F | E |
| Approach Delay (s) | | 33.9 | | | 642.8 | | | 80.1 | | | 75.7 | |
| Approach LOS | | C | | | F | | | F | | | E | |

Intersection Summary

| | | | |
|-----------------------------------|--------|---------------------------|------|
| HCM 2000 Control Delay | 266.0 | HCM 2000 Level of Service | F |
| HCM 2000 Volume to Capacity ratio | 1.32 | | |
| Actuated Cycle Length (s) | 170.0 | Sum of lost time (s) | 28.0 |
| Intersection Capacity Utilization | 129.9% | ICU Level of Service | H |
| Analysis Period (min) | 15 | | |

c Critical Lane Group

| Intersection | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.7 | | | | | | |
| Movement | EBL | EBR | NBL | NBT | SBU | SBT | SBR |
| Lane Configurations | T | | | T | | T | |
| Traffic Vol, veh/h | 22 | 0 | 0 | 95 | 0 | 158 | 46 |
| Future Vol, veh/h | 22 | 0 | 0 | 95 | 0 | 158 | 46 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | - | None |
| Storage Length | 0 | - | - | - | 150 | - | - |
| Veh in Median Storage, # | 1 | - | - | 0 | - | 0 | - |
| Grade, % | 0 | - | - | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 24 | 0 | 0 | 103 | 0 | 172 | 50 |

| Major/Minor | Minor2 | Major1 | | Major2 | | |
|----------------------|--------|--------|------|--------|------|-----|
| Conflicting Flow All | 249 | 111 | 222 | 0 | 103 | - 0 |
| Stage 1 | 197 | - | - | - | - | - |
| Stage 2 | 52 | - | - | - | - | - |
| Critical Hdwy | 6.84 | 6.94 | 4.14 | - | 6.44 | - |
| Critical Hdwy Stg 1 | 5.84 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.84 | - | - | - | - | - |
| Follow-up Hdwy | 3.52 | 3.32 | 2.22 | - | 2.52 | - |
| Pot Cap-1 Maneuver | 718 | 921 | 1344 | - | 1232 | - |
| Stage 1 | 817 | - | - | - | - | - |
| Stage 2 | 964 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 718 | 921 | 1344 | - | 1232 | - |
| Mov Cap-2 Maneuver | 720 | - | - | - | - | - |
| Stage 1 | 817 | - | - | - | - | - |
| Stage 2 | 964 | - | - | - | - | - |

| Approach | EB | NB | SB |
|----------------------|------|----|----|
| HCM Control Delay, s | 10.2 | 0 | 0 |
| HCM LOS | B | | |

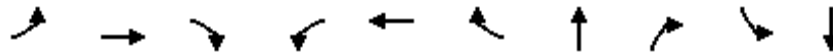
| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBU | SBT | SBR |
|-----------------------|------|-----|-------|------|-----|-----|
| Capacity (veh/h) | 1344 | - | 720 | 1232 | - | - |
| HCM Lane V/C Ratio | - | - | 0.033 | - | - | - |
| HCM Control Delay (s) | 0 | - | 10.2 | 0 | - | - |
| HCM Lane LOS | A | - | B | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | 0.1 | 0 | - | - |

Queues

Existing PM (2021)

1: BallenIsles Dr./Old Palm Dr. & PGA Blvd.

08/18/2021



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBT | NBR | SBL | SBT |
|-------------------------|------|------|------|------|------|------|-------|------|------|------|
| Lane Group Flow (vph) | 33 | 2116 | 59 | 75 | 2609 | 15 | 60 | 104 | 34 | 42 |
| v/c Ratio | 0.38 | 0.57 | 0.05 | 0.56 | 0.67 | 0.01 | 0.61 | 0.49 | 0.34 | 0.20 |
| Control Delay | 94.7 | 12.8 | 1.4 | 60.6 | 30.6 | 0.2 | 104.4 | 21.5 | 86.0 | 2.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 94.7 | 12.8 | 1.4 | 60.6 | 30.6 | 0.2 | 104.4 | 21.5 | 86.0 | 2.2 |
| Queue Length 50th (ft) | 39 | 395 | 0 | 92 | 642 | 0 | 70 | 4 | 39 | 0 |
| Queue Length 95th (ft) | 80 | 527 | 13 | m61 | m201 | m0 | 122 | 68 | 78 | 0 |
| Internal Link Dist (ft) | | 1128 | | | 1260 | | 383 | | | 307 |
| Turn Bay Length (ft) | 275 | | 110 | 450 | | 280 | | | | |
| Base Capacity (vph) | 102 | 3708 | 1173 | 136 | 3914 | 1234 | 287 | 425 | 293 | 420 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.32 | 0.57 | 0.05 | 0.55 | 0.67 | 0.01 | 0.21 | 0.24 | 0.12 | 0.10 |

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th Signalized Intersection Summary
 1: BallenIsles Dr./Old Palm Dr. & PGA Blvd.

Existing PM (2021)
 08/18/2021



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|-------|-------|------|------|------|-------|------|------|------|------|------|------|
| Lane Configurations | ↘ | ↑↑↑ | ↗ | ↘ | ↑↑↑ | ↗ | | ↑ | ↗ | ↘ | ↗ | |
| Traffic Volume (veh/h) | 30 | 1947 | 54 | 69 | 2400 | 14 | 53 | 2 | 96 | 31 | 0 | 39 |
| Future Volume (veh/h) | 30 | 1947 | 54 | 69 | 2400 | 14 | 53 | 2 | 96 | 31 | 0 | 39 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 33 | 2116 | 59 | 75 | 2609 | 15 | 58 | 2 | 104 | 34 | 0 | 42 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 43 | 3702 | 1149 | 91 | 3842 | 1193 | 146 | 4 | 165 | 90 | 0 | 165 |
| Arrive On Green | 0.02 | 0.73 | 0.73 | 0.10 | 1.00 | 1.00 | 0.10 | 0.10 | 0.10 | 0.10 | 0.00 | 0.10 |
| Sat Flow, veh/h | 1781 | 5106 | 1585 | 1781 | 5106 | 1585 | 1023 | 42 | 1585 | 1288 | 0 | 1585 |
| Grp Volume(v), veh/h | 33 | 2116 | 59 | 75 | 2609 | 15 | 60 | 0 | 104 | 34 | 0 | 42 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1702 | 1585 | 1781 | 1702 | 1585 | 1065 | 0 | 1585 | 1288 | 0 | 1585 |
| Q Serve(g_s), s | 3.3 | 35.0 | 1.9 | 7.4 | 0.0 | 0.0 | 7.4 | 0.0 | 11.3 | 4.7 | 0.0 | 4.4 |
| Cycle Q Clear(g_c), s | 3.3 | 35.0 | 1.9 | 7.4 | 0.0 | 0.0 | 11.8 | 0.0 | 11.3 | 16.5 | 0.0 | 4.4 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 0.97 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 43 | 3702 | 1149 | 91 | 3842 | 1193 | 150 | 0 | 165 | 90 | 0 | 165 |
| V/C Ratio(X) | 0.77 | 0.57 | 0.05 | 0.82 | 0.68 | 0.01 | 0.40 | 0.00 | 0.63 | 0.38 | 0.00 | 0.25 |
| Avail Cap(c_a), veh/h | 99 | 3702 | 1149 | 99 | 3842 | 1193 | 309 | 0 | 348 | 238 | 0 | 348 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l) | 1.00 | 1.00 | 1.00 | 0.09 | 0.09 | 0.09 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 87.4 | 11.6 | 7.1 | 80.0 | 0.0 | 0.0 | 79.5 | 0.0 | 77.3 | 85.4 | 0.0 | 74.2 |
| Incr Delay (d2), s/veh | 25.1 | 0.6 | 0.1 | 4.8 | 0.1 | 0.0 | 1.7 | 0.0 | 3.9 | 2.6 | 0.0 | 0.8 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.8 | 13.3 | 0.7 | 3.4 | 0.0 | 0.0 | 2.8 | 0.0 | 4.8 | 1.6 | 0.0 | 1.8 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 112.5 | 12.3 | 7.1 | 84.8 | 0.1 | 0.0 | 81.2 | 0.0 | 81.2 | 88.0 | 0.0 | 75.0 |
| LnGrp LOS | F | B | A | F | A | A | F | A | F | F | A | E |
| Approach Vol, veh/h | | 2208 | | | 2699 | | | 164 | | | | 76 |
| Approach Delay, s/veh | | 13.6 | | | 2.4 | | | 81.2 | | | | 80.8 |
| Approach LOS | | B | | | A | | | F | | | | F |
| Timer - Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 11.3 | 142.4 | | 26.2 | 16.2 | 137.5 | | 26.2 | | | | |
| Change Period (Y+Rc), s | 7.0 | 7.0 | | 7.5 | 7.0 | 7.0 | | 7.5 | | | | |
| Max Green Setting (Gmax), s | 10.0 | 109.0 | | 39.5 | 10.0 | 109.0 | | 39.5 | | | | |
| Max Q Clear Time (g_c+I1), s | 5.3 | 2.0 | | 13.8 | 9.4 | 37.0 | | 18.5 | | | | |
| Green Ext Time (p_c), s | 0.0 | 65.6 | | 0.6 | 0.0 | 36.0 | | 0.3 | | | | |

Intersection Summary

| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 10.9 |
| HCM 6th LOS | B |

Notes

User approved pedestrian interval to be less than phase max green.

Timings

Existing PM (2021)

2: Ave of the PGA/Central Blvd. & PGA Blvd.

08/18/2021

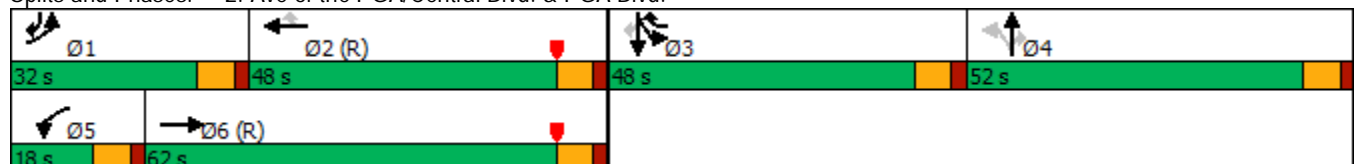


| Lane Group | EBL | EBT | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Lane Configurations | ↖↗ | ↕↔ | ↖ | ↕↔↕ | ↗ | | ↕ | ↗ | ↖ | ↕ | ↗ |
| Traffic Volume (vph) | 541 | 1780 | 88 | 2629 | 239 | 54 | 22 | 52 | 184 | 24 | 783 |
| Future Volume (vph) | 541 | 1780 | 88 | 2629 | 239 | 54 | 22 | 52 | 184 | 24 | 783 |
| Turn Type | Prot | NA | Prot | NA | pm+ov | Perm | NA | Perm | Split | NA | pm+ov |
| Protected Phases | 1 | 6 | 5 | 2 | 3 | | 4 | | 3 | 3 | 1 |
| Permitted Phases | | | | | 2 | 4 | | 4 | | | 3 |
| Detector Phase | 1 | 6 | 5 | 2 | 3 | 4 | 4 | 4 | 3 | 3 | 1 |
| Switch Phase | | | | | | | | | | | |
| Minimum Initial (s) | 4.0 | 20.0 | 4.0 | 20.0 | 5.0 | 4.0 | 4.0 | 4.0 | 5.0 | 5.0 | 4.0 |
| Minimum Split (s) | 12.0 | 27.0 | 12.0 | 27.0 | 12.0 | 25.0 | 25.0 | 25.0 | 12.0 | 12.0 | 12.0 |
| Total Split (s) | 32.0 | 62.0 | 18.0 | 48.0 | 48.0 | 52.0 | 52.0 | 52.0 | 48.0 | 48.0 | 32.0 |
| Total Split (%) | 17.8% | 34.4% | 10.0% | 26.7% | 26.7% | 28.9% | 28.9% | 28.9% | 26.7% | 26.7% | 17.8% |
| Yellow Time (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| All-Red Time (s) | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 |
| Lead/Lag | Lead | Lag | Lead | Lag | Lead | Lag | Lag | Lag | Lead | Lead | Lead |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | C-Max | None | C-Max | None | None | None | None | None | None | None |
| Act Effct Green (s) | 68.3 | 100.8 | 16.5 | 49.0 | 74.2 | | 16.5 | 16.5 | 18.2 | 18.2 | 86.5 |
| Actuated g/C Ratio | 0.38 | 0.56 | 0.09 | 0.27 | 0.41 | | 0.09 | 0.09 | 0.10 | 0.10 | 0.48 |
| v/c Ratio | 0.45 | 0.70 | 0.59 | 2.07 | 0.36 | | 0.69 | 0.20 | 0.66 | 0.66 | 0.87 |
| Control Delay | 52.2 | 23.5 | 93.1 | 511.6 | 22.8 | | 105.1 | 1.6 | 95.5 | 95.4 | 25.8 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 52.2 | 23.5 | 93.1 | 511.6 | 22.8 | | 105.1 | 1.6 | 95.5 | 95.4 | 25.8 |
| LOS | D | C | F | F | C | | F | A | F | F | C |
| Approach Delay | | 30.1 | | 459.5 | | | 63.0 | | | 40.4 | |
| Approach LOS | | C | | F | | | E | | | D | |

Intersection Summary

Cycle Length: 180
 Actuated Cycle Length: 180
 Offset: 111 (62%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow
 Natural Cycle: 150
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 2.07
 Intersection Signal Delay: 229.5
 Intersection LOS: F
 Intersection Capacity Utilization 120.9%
 ICU Level of Service H
 Analysis Period (min) 15

Splits and Phases: 2: Ave of the PGA/Central Blvd. & PGA Blvd.





| Lane Group | EBL | EBT | WBL | WBT | WBR | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|-------|------|-------|------|------|------|------|
| Lane Group Flow (vph) | 588 | 1982 | 96 | 2858 | 260 | 83 | 57 | 112 | 114 | 851 |
| v/c Ratio | 0.45 | 0.70 | 0.59 | 2.07 | 0.36 | 0.69 | 0.20 | 0.66 | 0.66 | 0.87 |
| Control Delay | 52.2 | 23.5 | 93.1 | 511.6 | 22.8 | 105.1 | 1.6 | 95.5 | 95.4 | 25.8 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 52.2 | 23.5 | 93.1 | 511.6 | 22.8 | 105.1 | 1.6 | 95.5 | 95.4 | 25.8 |
| Queue Length 50th (ft) | 243 | 315 | 111 | ~2013 | 127 | 97 | 0 | 136 | 138 | 291 |
| Queue Length 95th (ft) | 345 | 640 | 176 | #2101 | 200 | 157 | 0 | 206 | 210 | 490 |
| Internal Link Dist (ft) | | 1260 | | 818 | | 633 | | | 653 | |
| Turn Bay Length (ft) | 270 | | 350 | | 240 | | 150 | 200 | | |
| Base Capacity (vph) | 1302 | 2838 | 162 | 1384 | 903 | 332 | 509 | 382 | 388 | 979 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.45 | 0.70 | 0.59 | 2.07 | 0.29 | 0.25 | 0.11 | 0.29 | 0.29 | 0.87 |

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis

Existing PM (2021)

2: Ave of the PGA/Central Blvd. & PGA Blvd.

08/18/2021



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR | |
|------------------------|------|-------|------|------|-------|-------|------|-------|------|-------|------|-------|--|
| Lane Configurations | | | | | | | | | | | | | |
| Traffic Volume (vph) | 541 | 1780 | 43 | 88 | 2629 | 239 | 54 | 22 | 52 | 184 | 24 | 783 | |
| Future Volume (vph) | 541 | 1780 | 43 | 88 | 2629 | 239 | 54 | 22 | 52 | 184 | 24 | 783 | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | |
| Total Lost time (s) | 7.0 | 7.0 | | 7.0 | 7.0 | 7.0 | | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | |
| Lane Util. Factor | 0.97 | 0.91 | | 1.00 | 0.91 | 1.00 | | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 | |
| Frt | 1.00 | 1.00 | | 1.00 | 1.00 | 0.85 | | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 | |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | 1.00 | | 0.97 | 1.00 | 0.95 | 0.96 | 1.00 | |
| Satd. Flow (prot) | 3433 | 5067 | | 1770 | 5085 | 1583 | | 1799 | 1583 | 1681 | 1704 | 1583 | |
| Flt Permitted | 0.95 | 1.00 | | 0.95 | 1.00 | 1.00 | | 0.71 | 1.00 | 0.95 | 0.96 | 1.00 | |
| Satd. Flow (perm) | 3433 | 5067 | | 1770 | 5085 | 1583 | | 1331 | 1583 | 1681 | 1704 | 1583 | |
| Peak-hour factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | |
| Adj. Flow (vph) | 588 | 1935 | 47 | 96 | 2858 | 260 | 59 | 24 | 57 | 200 | 26 | 851 | |
| RTOR Reduction (vph) | 0 | 1 | 0 | 0 | 0 | 68 | 0 | 0 | 52 | 0 | 0 | 220 | |
| Lane Group Flow (vph) | 588 | 1981 | 0 | 96 | 2858 | 192 | 0 | 83 | 5 | 112 | 114 | 631 | |
| Turn Type | Prot | NA | | Prot | NA | pm+ov | Perm | NA | Perm | Split | NA | pm+ov | |
| Protected Phases | 1 | 6 | | 5 | 2 | 3 | | 4 | | 3 | 3 | 1 | |
| Permitted Phases | | | | | | 2 | 4 | | 4 | | | 3 | |
| Actuated Green, G (s) | 68.3 | 100.8 | | 16.5 | 49.0 | 67.2 | | 16.5 | 16.5 | 18.2 | 18.2 | 86.5 | |
| Effective Green, g (s) | 68.3 | 100.8 | | 16.5 | 49.0 | 67.2 | | 16.5 | 16.5 | 18.2 | 18.2 | 86.5 | |
| Actuated g/C Ratio | 0.38 | 0.56 | | 0.09 | 0.27 | 0.37 | | 0.09 | 0.09 | 0.10 | 0.10 | 0.48 | |
| Clearance Time (s) | 7.0 | 7.0 | | 7.0 | 7.0 | 7.0 | | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | |
| Lane Grp Cap (vph) | 1302 | 2837 | | 162 | 1384 | 652 | | 122 | 145 | 169 | 172 | 760 | |
| v/s Ratio Prot | 0.17 | 0.39 | | 0.05 | c0.56 | 0.03 | | | | 0.07 | 0.07 | c0.31 | |
| v/s Ratio Perm | | | | | | 0.09 | | c0.06 | 0.00 | | | 0.08 | |
| v/c Ratio | 0.45 | 0.70 | | 0.59 | 2.07 | 0.29 | | 0.68 | 0.04 | 0.66 | 0.66 | 0.83 | |
| Uniform Delay, d1 | 41.8 | 28.6 | | 78.5 | 65.5 | 39.7 | | 79.2 | 74.5 | 77.9 | 77.9 | 40.4 | |
| Progression Factor | 1.21 | 0.72 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| Incremental Delay, d2 | 0.2 | 1.3 | | 5.7 | 481.8 | 0.3 | | 14.5 | 0.1 | 9.4 | 9.2 | 7.7 | |
| Delay (s) | 50.9 | 21.9 | | 84.2 | 547.3 | 40.0 | | 93.7 | 74.6 | 87.3 | 87.2 | 48.1 | |
| Level of Service | D | C | | F | F | D | | F | E | F | F | D | |
| Approach Delay (s) | | 28.5 | | | 492.4 | | | 85.9 | | | 56.3 | | |
| Approach LOS | | C | | | F | | | F | | | E | | |

Intersection Summary

| | | | |
|-----------------------------------|--------|---------------------------|------|
| HCM 2000 Control Delay | 246.9 | HCM 2000 Level of Service | F |
| HCM 2000 Volume to Capacity ratio | 1.21 | | |
| Actuated Cycle Length (s) | 180.0 | Sum of lost time (s) | 28.0 |
| Intersection Capacity Utilization | 120.9% | ICU Level of Service | H |
| Analysis Period (min) | 15 | | |

c Critical Lane Group

Timings

1: BallenIsles Dr./Old Palm Dr. & PGA Blvd.

08/18/2021



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT |
|----------------------|------|-------|-------|------|-------|-------|-------|-------|-------|-------|-------|
| Lane Configurations | ↘ | ↑↑↑ | ↗ | ↘ | ↑↑↑ | ↗ | | ↖ | ↗ | ↘ | ↗ |
| Traffic Volume (vph) | 34 | 2487 | 61 | 77 | 2979 | 16 | 59 | 2 | 108 | 35 | 0 |
| Future Volume (vph) | 34 | 2487 | 61 | 77 | 2979 | 16 | 59 | 2 | 108 | 35 | 0 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Perm | NA | Perm | Perm | NA |
| Protected Phases | 1 | 6 | | 5 | 2 | | | 4 | | | 8 |
| Permitted Phases | | | 6 | | | 2 | 4 | | 4 | 8 | |
| Detector Phase | 1 | 6 | 6 | 5 | 2 | 2 | 4 | 4 | 4 | 8 | 8 |
| Switch Phase | | | | | | | | | | | |
| Minimum Initial (s) | 4.0 | 15.0 | 15.0 | 4.0 | 15.0 | 15.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Minimum Split (s) | 11.0 | 40.0 | 40.0 | 11.0 | 35.0 | 35.0 | 47.5 | 47.5 | 47.5 | 46.5 | 46.5 |
| Total Split (s) | 17.0 | 116.0 | 116.0 | 17.0 | 116.0 | 116.0 | 47.0 | 47.0 | 47.0 | 47.0 | 47.0 |
| Total Split (%) | 9.4% | 64.4% | 64.4% | 9.4% | 64.4% | 64.4% | 26.1% | 26.1% | 26.1% | 26.1% | 26.1% |
| Yellow Time (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| All-Red Time (s) | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | | 7.5 | 7.5 | 7.5 | 7.5 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | | | | | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | | | | | |
| Recall Mode | None | C-Max | C-Max | None | C-Max | C-Max | None | None | None | None | None |
| Act Effct Green (s) | 9.2 | 129.0 | 129.0 | 15.0 | 137.3 | 137.3 | | 14.5 | 14.5 | 14.5 | 14.5 |
| Actuated g/C Ratio | 0.05 | 0.72 | 0.72 | 0.08 | 0.76 | 0.76 | | 0.08 | 0.08 | 0.08 | 0.08 |
| v/c Ratio | 0.41 | 0.74 | 0.06 | 0.57 | 0.83 | 0.01 | | 0.63 | 0.55 | 0.36 | 0.23 |
| Control Delay | 95.4 | 18.1 | 1.9 | 60.4 | 46.0 | 0.2 | | 104.9 | 29.8 | 85.5 | 2.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 95.4 | 18.1 | 1.9 | 60.4 | 46.3 | 0.2 | | 104.9 | 29.8 | 85.5 | 2.5 |
| LOS | F | B | A | E | D | A | | F | C | F | A |
| Approach Delay | | 18.8 | | | 46.4 | | | 56.9 | | | 39.2 |
| Approach LOS | | B | | | D | | | E | | | D |

Intersection Summary

Cycle Length: 180
 Actuated Cycle Length: 180
 Offset: 134 (74%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow
 Natural Cycle: 150
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.83
 Intersection Signal Delay: 34.5
 Intersection LOS: C
 Intersection Capacity Utilization 86.1%
 ICU Level of Service E
 Analysis Period (min) 15

Splits and Phases: 1: BallenIsles Dr./Old Palm Dr. & PGA Blvd.

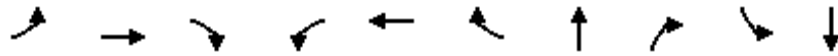


Queues

Future Background PM (2026)

1: BallenIsles Dr./Old Palm Dr. & PGA Blvd.

08/18/2021



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBT | NBR | SBL | SBT |
|-------------------------|------|------|------|------|------|------|-------|------|------|------|
| Lane Group Flow (vph) | 37 | 2703 | 66 | 84 | 3238 | 17 | 66 | 117 | 38 | 48 |
| v/c Ratio | 0.41 | 0.74 | 0.06 | 0.57 | 0.83 | 0.01 | 0.63 | 0.55 | 0.36 | 0.23 |
| Control Delay | 95.4 | 18.1 | 1.9 | 60.4 | 46.0 | 0.2 | 104.9 | 29.8 | 85.5 | 2.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 95.4 | 18.1 | 1.9 | 60.4 | 46.3 | 0.2 | 104.9 | 29.8 | 85.5 | 2.5 |
| Queue Length 50th (ft) | 43 | 667 | 0 | 103 | 957 | 0 | 77 | 26 | 43 | 0 |
| Queue Length 95th (ft) | 87 | 865 | 17 | m52 | m200 | m0 | 131 | 95 | 84 | 0 |
| Internal Link Dist (ft) | | 1128 | | | 1260 | | 383 | | | 307 |
| Turn Bay Length (ft) | 275 | | 110 | 450 | | 280 | | | | |
| Base Capacity (vph) | 104 | 3643 | 1154 | 147 | 3880 | 1224 | 284 | 420 | 291 | 419 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 154 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.36 | 0.74 | 0.06 | 0.57 | 0.87 | 0.01 | 0.23 | 0.28 | 0.13 | 0.11 |

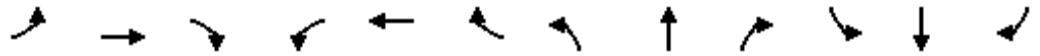
Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th Signalized Intersection Summary
 1: BallenIsles Dr./Old Palm Dr. & PGA Blvd.

Future Background PM (2026)

08/18/2021



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|-------|-------|------|------|------|-------|------|------|------|------|------|------|
| Lane Configurations | ↵ | ↑↑↑ | ↶ | ↵ | ↑↑↑ | ↶ | ↵ | ↑ | ↶ | ↵ | ↶ | ↶ |
| Traffic Volume (veh/h) | 34 | 2487 | 61 | 77 | 2979 | 16 | 59 | 2 | 108 | 35 | 0 | 44 |
| Future Volume (veh/h) | 34 | 2487 | 61 | 77 | 2979 | 16 | 59 | 2 | 108 | 35 | 0 | 44 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 37 | 2703 | 66 | 84 | 3238 | 17 | 64 | 2 | 117 | 38 | 0 | 48 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 48 | 3623 | 1125 | 99 | 3770 | 1170 | 156 | 4 | 183 | 94 | 0 | 183 |
| Arrive On Green | 0.03 | 0.71 | 0.71 | 0.11 | 1.00 | 1.00 | 0.12 | 0.12 | 0.12 | 0.12 | 0.00 | 0.12 |
| Sat Flow, veh/h | 1781 | 5106 | 1585 | 1781 | 5106 | 1585 | 1012 | 37 | 1585 | 1273 | 0 | 1585 |
| Grp Volume(v), veh/h | 37 | 2703 | 66 | 84 | 3238 | 17 | 66 | 0 | 117 | 38 | 0 | 48 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1702 | 1585 | 1781 | 1702 | 1585 | 1049 | 0 | 1585 | 1273 | 0 | 1585 |
| Q Serve(g_s), s | 3.7 | 58.8 | 2.3 | 8.3 | 0.0 | 0.0 | 8.2 | 0.0 | 12.7 | 5.3 | 0.0 | 5.0 |
| Cycle Q Clear(g_c), s | 3.7 | 58.8 | 2.3 | 8.3 | 0.0 | 0.0 | 13.2 | 0.0 | 12.7 | 18.4 | 0.0 | 5.0 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 0.97 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 48 | 3623 | 1125 | 99 | 3770 | 1170 | 160 | 0 | 183 | 94 | 0 | 183 |
| V/C Ratio(X) | 0.77 | 0.75 | 0.06 | 0.85 | 0.86 | 0.01 | 0.41 | 0.00 | 0.64 | 0.40 | 0.00 | 0.26 |
| Avail Cap(c_a), veh/h | 99 | 3623 | 1125 | 99 | 3770 | 1170 | 303 | 0 | 348 | 226 | 0 | 348 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l) | 1.00 | 1.00 | 1.00 | 0.09 | 0.09 | 0.09 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 87.0 | 16.1 | 7.9 | 79.3 | 0.0 | 0.0 | 78.5 | 0.0 | 76.0 | 85.1 | 0.0 | 72.6 |
| Incr Delay (d2), s/veh | 22.8 | 1.4 | 0.1 | 6.4 | 0.3 | 0.0 | 1.7 | 0.0 | 3.7 | 2.8 | 0.0 | 0.8 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 2.0 | 22.8 | 0.8 | 3.8 | 0.1 | 0.0 | 3.0 | 0.0 | 5.4 | 1.8 | 0.0 | 2.1 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 109.8 | 17.6 | 8.0 | 85.7 | 0.3 | 0.0 | 80.2 | 0.0 | 79.7 | 87.8 | 0.0 | 73.4 |
| LnGrp LOS | F | B | A | F | A | A | F | A | E | F | A | E |
| Approach Vol, veh/h | | 2806 | | | 3339 | | | 183 | | | | 86 |
| Approach Delay, s/veh | | 18.6 | | | 2.4 | | | 79.9 | | | | 79.8 |
| Approach LOS | | B | | | A | | | E | | | | E |
| Timer - Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 11.8 | 139.9 | | 28.2 | 17.0 | 134.8 | | 28.2 | | | | |
| Change Period (Y+Rc), s | 7.0 | 7.0 | | 7.5 | 7.0 | 7.0 | | 7.5 | | | | |
| Max Green Setting (Gmax), s | 10.0 | 109.0 | | 39.5 | 10.0 | 109.0 | | 39.5 | | | | |
| Max Q Clear Time (g_c+I1), s | 5.7 | 2.0 | | 15.2 | 10.3 | 60.8 | | 20.4 | | | | |
| Green Ext Time (p_c), s | 0.0 | 92.1 | | 0.7 | 0.0 | 39.5 | | 0.3 | | | | |

Intersection Summary

| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 12.7 |
| HCM 6th LOS | B |

Notes

User approved pedestrian interval to be less than phase max green.

Timings

2: Ave of the PGA/Central Blvd. & PGA Blvd.

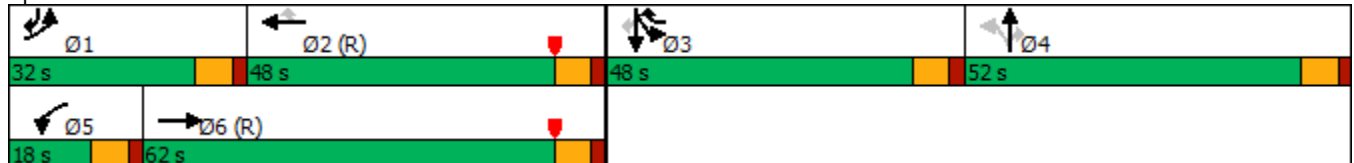


| Lane Group | EBL | EBT | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Lane Configurations | | | | | | | | | | | |
| Traffic Volume (vph) | 710 | 2171 | 99 | 2997 | 296 | 61 | 25 | 58 | 236 | 27 | 1046 |
| Future Volume (vph) | 710 | 2171 | 99 | 2997 | 296 | 61 | 25 | 58 | 236 | 27 | 1046 |
| Turn Type | Prot | NA | Prot | NA | pm+ov | Perm | NA | Perm | Split | NA | pm+ov |
| Protected Phases | 1 | 6 | 5 | 2 | 3 | | 4 | | 3 | 3 | 1 |
| Permitted Phases | | | | | 2 | 4 | | 4 | | | 3 |
| Detector Phase | 1 | 6 | 5 | 2 | 3 | 4 | 4 | 4 | 3 | 3 | 1 |
| Switch Phase | | | | | | | | | | | |
| Minimum Initial (s) | 4.0 | 20.0 | 4.0 | 20.0 | 5.0 | 4.0 | 4.0 | 4.0 | 5.0 | 5.0 | 4.0 |
| Minimum Split (s) | 12.0 | 27.0 | 12.0 | 27.0 | 12.0 | 25.0 | 25.0 | 25.0 | 12.0 | 12.0 | 12.0 |
| Total Split (s) | 32.0 | 62.0 | 18.0 | 48.0 | 48.0 | 52.0 | 52.0 | 52.0 | 48.0 | 48.0 | 32.0 |
| Total Split (%) | 17.8% | 34.4% | 10.0% | 26.7% | 26.7% | 28.9% | 28.9% | 28.9% | 26.7% | 26.7% | 17.8% |
| Yellow Time (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| All-Red Time (s) | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 |
| Lead/Lag | Lead | Lag | Lead | Lag | Lead | Lag | Lag | Lag | Lead | Lead | Lead |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | C-Max | None | C-Max | None | None | None | None | None | None | None |
| Act Effct Green (s) | 70.7 | 92.6 | 19.1 | 41.0 | 69.9 | | 18.3 | 18.3 | 21.9 | 21.9 | 92.7 |
| Actuated g/C Ratio | 0.39 | 0.51 | 0.11 | 0.23 | 0.39 | | 0.10 | 0.10 | 0.12 | 0.12 | 0.52 |
| v/c Ratio | 0.57 | 0.92 | 0.57 | 2.81 | 0.47 | | 0.71 | 0.21 | 0.69 | 0.70 | 1.12 |
| Control Delay | 58.4 | 36.1 | 88.8 | 841.0 | 27.3 | | 104.6 | 1.6 | 92.1 | 92.7 | 90.8 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 58.4 | 36.1 | 88.8 | 841.0 | 27.3 | | 104.6 | 1.6 | 92.1 | 92.7 | 90.8 |
| LOS | E | D | F | F | C | | F | A | F | F | F |
| Approach Delay | | 41.5 | | 747.9 | | | 63.0 | | | 91.1 | |
| Approach LOS | | D | | F | | | E | | | F | |

Intersection Summary

Cycle Length: 180
 Actuated Cycle Length: 180
 Offset: 111 (62%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow
 Natural Cycle: 150
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 2.81
 Intersection Signal Delay: 358.5
 Intersection LOS: F
 Intersection Capacity Utilization 144.9%
 ICU Level of Service H
 Analysis Period (min) 15

Splits and Phases: 2: Ave of the PGA/Central Blvd. & PGA Blvd.





| Lane Group | EBL | EBT | WBL | WBT | WBR | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|-------|------|-------|------|-------|------|------|------|-------|
| Lane Group Flow (vph) | 772 | 2412 | 108 | 3258 | 322 | 93 | 63 | 141 | 145 | 1137 |
| v/c Ratio | 0.57 | 0.92 | 0.57 | 2.81 | 0.47 | 0.71 | 0.21 | 0.69 | 0.70 | 1.12 |
| Control Delay | 58.4 | 36.1 | 88.8 | 841.0 | 27.3 | 104.6 | 1.6 | 92.1 | 92.7 | 90.8 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 58.4 | 36.1 | 88.8 | 841.0 | 27.3 | 104.6 | 1.6 | 92.1 | 92.7 | 90.8 |
| Queue Length 50th (ft) | 360 | 741 | 124 | ~2399 | 184 | 108 | 0 | 171 | 176 | ~1389 |
| Queue Length 95th (ft) | 480 | #1302 | 193 | #2445 | 258 | 172 | 0 | 245 | 252 | #1724 |
| Internal Link Dist (ft) | | 1260 | | 818 | | 633 | | | 653 | |
| Turn Bay Length (ft) | 270 | | 350 | | 240 | | 150 | 200 | | |
| Base Capacity (vph) | 1349 | 2609 | 188 | 1158 | 839 | 324 | 509 | 382 | 387 | 1013 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.57 | 0.92 | 0.57 | 2.81 | 0.38 | 0.29 | 0.12 | 0.37 | 0.37 | 1.12 |

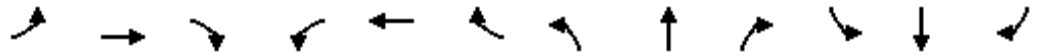
Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis
 2: Ave of the PGA/Central Blvd. & PGA Blvd.

Future Background PM (2026)

08/18/2021



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------|------|------|------|------|-------|-------|------|-------|------|-------|-------|-------|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 710 | 2171 | 48 | 99 | 2997 | 296 | 61 | 25 | 58 | 236 | 27 | 1046 |
| Future Volume (vph) | 710 | 2171 | 48 | 99 | 2997 | 296 | 61 | 25 | 58 | 236 | 27 | 1046 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 7.0 | 7.0 | | 7.0 | 7.0 | 7.0 | | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 |
| Lane Util. Factor | 0.97 | 0.91 | | 1.00 | 0.91 | 1.00 | | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 |
| Frt | 1.00 | 1.00 | | 1.00 | 1.00 | 0.85 | | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | 1.00 | | 0.97 | 1.00 | 0.95 | 0.96 | 1.00 |
| Satd. Flow (prot) | 3433 | 5069 | | 1770 | 5085 | 1583 | | 1799 | 1583 | 1681 | 1702 | 1583 |
| Flt Permitted | 0.95 | 1.00 | | 0.95 | 1.00 | 1.00 | | 0.70 | 1.00 | 0.95 | 0.96 | 1.00 |
| Satd. Flow (perm) | 3433 | 5069 | | 1770 | 5085 | 1583 | | 1296 | 1583 | 1681 | 1702 | 1583 |
| Peak-hour factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 772 | 2360 | 52 | 108 | 3258 | 322 | 66 | 27 | 63 | 257 | 29 | 1137 |
| RTOR Reduction (vph) | 0 | 1 | 0 | 0 | 0 | 73 | 0 | 0 | 57 | 0 | 0 | 198 |
| Lane Group Flow (vph) | 772 | 2411 | 0 | 108 | 3258 | 249 | 0 | 93 | 6 | 141 | 145 | 939 |
| Turn Type | Prot | NA | | Prot | NA | pm+ov | Perm | NA | Perm | Split | NA | pm+ov |
| Protected Phases | 1 | 6 | | 5 | 2 | 3 | | 4 | | 3 | 3 | 1 |
| Permitted Phases | | | | | | 2 | 4 | | 4 | | | 3 |
| Actuated Green, G (s) | 70.7 | 92.7 | | 19.1 | 41.1 | 63.0 | | 18.3 | 18.3 | 21.9 | 21.9 | 92.6 |
| Effective Green, g (s) | 70.7 | 92.7 | | 19.1 | 41.1 | 63.0 | | 18.3 | 18.3 | 21.9 | 21.9 | 92.6 |
| Actuated g/C Ratio | 0.39 | 0.52 | | 0.11 | 0.23 | 0.35 | | 0.10 | 0.10 | 0.12 | 0.12 | 0.51 |
| Clearance Time (s) | 7.0 | 7.0 | | 7.0 | 7.0 | 7.0 | | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Lane Grp Cap (vph) | 1348 | 2610 | | 187 | 1161 | 615 | | 131 | 160 | 204 | 207 | 814 |
| v/s Ratio Prot | 0.22 | 0.48 | | 0.06 | c0.64 | 0.05 | | | | 0.08 | 0.09 | c0.45 |
| v/s Ratio Perm | | | | | | 0.11 | | c0.07 | 0.00 | | | 0.14 |
| v/c Ratio | 0.57 | 0.92 | | 0.58 | 2.81 | 0.40 | | 0.71 | 0.04 | 0.69 | 0.70 | 1.15 |
| Uniform Delay, d1 | 42.8 | 40.4 | | 76.6 | 69.5 | 44.3 | | 78.3 | 72.9 | 75.8 | 75.9 | 43.7 |
| Progression Factor | 1.26 | 0.73 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Incremental Delay, d2 | 0.5 | 5.5 | | 4.3 | 815.2 | 0.4 | | 16.2 | 0.1 | 9.7 | 10.2 | 82.9 |
| Delay (s) | 54.6 | 35.0 | | 80.9 | 884.6 | 44.7 | | 94.4 | 73.0 | 85.5 | 86.1 | 126.6 |
| Level of Service | D | D | | F | F | D | | F | E | F | F | F |
| Approach Delay (s) | | 39.8 | | | 787.8 | | | 85.8 | | | 118.4 | |
| Approach LOS | | D | | | F | | | F | | | F | |

| Intersection Summary | | |
|-----------------------------------|--------|---------------------------|
| HCM 2000 Control Delay | 380.3 | HCM 2000 Level of Service |
| HCM 2000 Volume to Capacity ratio | 1.55 | F |
| Actuated Cycle Length (s) | 180.0 | Sum of lost time (s) |
| Intersection Capacity Utilization | 144.9% | 28.0 |
| Analysis Period (min) | 15 | ICU Level of Service |
| | | H |

c Critical Lane Group

Timings

Future Total PM (2026)

1: BallenIsles Dr./Old Palm Dr. & PGA Blvd.

09/03/2021

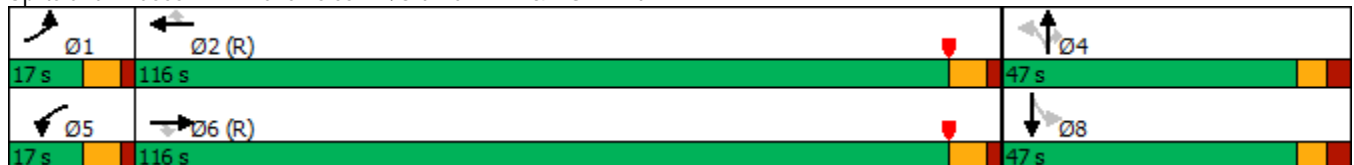


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT |
|----------------------|------|-------|-------|------|-------|-------|-------|-------|-------|-------|-------|
| Lane Configurations | ↖ | ↑↑↑ | ↗ | ↖ | ↑↑↑ | ↗ | | ↑ | ↗ | ↖ | ↗ |
| Traffic Volume (vph) | 36 | 2487 | 65 | 97 | 2979 | 16 | 67 | 2 | 150 | 35 | 0 |
| Future Volume (vph) | 36 | 2487 | 65 | 97 | 2979 | 16 | 67 | 2 | 150 | 35 | 0 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Perm | NA | Perm | Perm | NA |
| Protected Phases | 1 | 6 | | 5 | 2 | | | 4 | | | 8 |
| Permitted Phases | | | 6 | | | 2 | 4 | | 4 | 8 | |
| Detector Phase | 1 | 6 | 6 | 5 | 2 | 2 | 4 | 4 | 4 | 8 | 8 |
| Switch Phase | | | | | | | | | | | |
| Minimum Initial (s) | 4.0 | 15.0 | 15.0 | 4.0 | 15.0 | 15.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Minimum Split (s) | 11.0 | 40.0 | 40.0 | 11.0 | 35.0 | 35.0 | 47.5 | 47.5 | 47.5 | 46.5 | 46.5 |
| Total Split (s) | 17.0 | 116.0 | 116.0 | 17.0 | 116.0 | 116.0 | 47.0 | 47.0 | 47.0 | 47.0 | 47.0 |
| Total Split (%) | 9.4% | 64.4% | 64.4% | 9.4% | 64.4% | 64.4% | 26.1% | 26.1% | 26.1% | 26.1% | 26.1% |
| Yellow Time (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| All-Red Time (s) | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | | 7.5 | 7.5 | 7.5 | 7.5 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | | | | | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | | | | | |
| Recall Mode | None | C-Max | C-Max | None | C-Max | C-Max | None | None | None | None | None |
| Act Effect Green (s) | 9.4 | 123.0 | 123.0 | 19.7 | 135.9 | 135.9 | | 15.8 | 15.8 | 15.8 | 15.8 |
| Actuated g/C Ratio | 0.05 | 0.68 | 0.68 | 0.11 | 0.76 | 0.76 | | 0.09 | 0.09 | 0.09 | 0.09 |
| v/c Ratio | 0.42 | 0.78 | 0.06 | 0.54 | 0.84 | 0.01 | | 0.66 | 0.73 | 0.33 | 0.22 |
| Control Delay | 95.7 | 22.2 | 2.5 | 60.6 | 46.8 | 0.2 | | 105.0 | 51.7 | 82.7 | 2.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 95.7 | 22.2 | 2.5 | 60.6 | 47.1 | 0.2 | | 105.0 | 51.7 | 82.7 | 2.2 |
| LOS | F | C | A | E | D | A | | F | D | F | A |
| Approach Delay | | 22.7 | | | 47.3 | | | 68.5 | | | 37.8 |
| Approach LOS | | C | | | D | | | E | | | D |

Intersection Summary

Cycle Length: 180
 Actuated Cycle Length: 180
 Offset: 134 (74%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow
 Natural Cycle: 150
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.84
 Intersection Signal Delay: 37.3
 Intersection LOS: D
 Intersection Capacity Utilization 89.3%
 ICU Level of Service E
 Analysis Period (min) 15

Splits and Phases: 1: BallenIsles Dr./Old Palm Dr. & PGA Blvd.

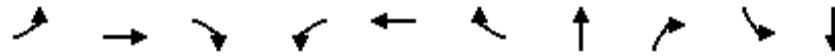


Queues

Future Total PM (2026)

1: BallenIsles Dr./Old Palm Dr. & PGA Blvd.

09/03/2021



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBT | NBR | SBL | SBT |
|-------------------------|------|------|------|------|------|------|-------|------|------|------|
| Lane Group Flow (vph) | 39 | 2703 | 71 | 105 | 3238 | 17 | 75 | 163 | 38 | 48 |
| v/c Ratio | 0.42 | 0.78 | 0.06 | 0.54 | 0.84 | 0.01 | 0.66 | 0.73 | 0.33 | 0.22 |
| Control Delay | 95.7 | 22.2 | 2.5 | 60.6 | 46.8 | 0.2 | 105.0 | 51.7 | 82.7 | 2.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 95.7 | 22.2 | 2.5 | 60.6 | 47.1 | 0.2 | 105.0 | 51.7 | 82.7 | 2.2 |
| Queue Length 50th (ft) | 46 | 742 | 0 | 129 | 964 | 0 | 87 | 80 | 43 | 0 |
| Queue Length 95th (ft) | 90 | 932 | 22 | m64 | m199 | m0 | 145 | 164 | 84 | 0 |
| Internal Link Dist (ft) | | 1128 | | | 1260 | | 383 | | | 307 |
| Turn Bay Length (ft) | 275 | | 110 | 450 | | 280 | | | | |
| Base Capacity (vph) | 105 | 3474 | 1103 | 193 | 3838 | 1212 | 284 | 420 | 289 | 419 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 147 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.37 | 0.78 | 0.06 | 0.54 | 0.88 | 0.01 | 0.26 | 0.39 | 0.13 | 0.11 |

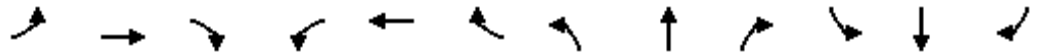
Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th Signalized Intersection Summary
 1: BallenIsles Dr./Old Palm Dr. & PGA Blvd.

Future Total PM (2026)

09/03/2021



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|-------|-------|------|-------|------|-------|------|------|------|------|------|------|
| Lane Configurations | ↖ | ↑↑↑ | ↗ | ↖ | ↑↑↑ | ↗ | | ↑ | ↗ | ↖ | ↗ | |
| Traffic Volume (veh/h) | 36 | 2487 | 65 | 97 | 2979 | 16 | 67 | 2 | 150 | 35 | 0 | 44 |
| Future Volume (veh/h) | 36 | 2487 | 65 | 97 | 2979 | 16 | 67 | 2 | 150 | 35 | 0 | 44 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 39 | 2703 | 71 | 105 | 3238 | 17 | 73 | 2 | 163 | 38 | 0 | 48 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 50 | 3585 | 1113 | 99 | 3724 | 1156 | 167 | 4 | 195 | 93 | 0 | 195 |
| Arrive On Green | 0.03 | 0.70 | 0.70 | 0.11 | 1.00 | 1.00 | 0.12 | 0.12 | 0.12 | 0.12 | 0.00 | 0.12 |
| Sat Flow, veh/h | 1781 | 5106 | 1585 | 1781 | 5106 | 1585 | 1035 | 33 | 1585 | 1221 | 0 | 1585 |
| Grp Volume(v), veh/h | 39 | 2703 | 71 | 105 | 3238 | 17 | 75 | 0 | 163 | 38 | 0 | 48 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1702 | 1585 | 1781 | 1702 | 1585 | 1068 | 0 | 1585 | 1221 | 0 | 1585 |
| Q Serve(g_s), s | 3.9 | 60.3 | 2.5 | 10.0 | 0.0 | 0.0 | 9.4 | 0.0 | 18.1 | 5.5 | 0.0 | 4.9 |
| Cycle Q Clear(g_c), s | 3.9 | 60.3 | 2.5 | 10.0 | 0.0 | 0.0 | 14.3 | 0.0 | 18.1 | 19.8 | 0.0 | 4.9 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 0.97 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 50 | 3585 | 1113 | 99 | 3724 | 1156 | 171 | 0 | 195 | 93 | 0 | 195 |
| V/C Ratio(X) | 0.77 | 0.75 | 0.06 | 1.06 | 0.87 | 0.01 | 0.44 | 0.00 | 0.84 | 0.41 | 0.00 | 0.25 |
| Avail Cap(c_a), veh/h | 99 | 3585 | 1113 | 99 | 3724 | 1156 | 303 | 0 | 348 | 211 | 0 | 348 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l) | 1.00 | 1.00 | 1.00 | 0.09 | 0.09 | 0.09 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 86.9 | 17.0 | 8.4 | 80.0 | 0.0 | 0.0 | 77.8 | 0.0 | 77.2 | 85.0 | 0.0 | 71.4 |
| Incr Delay (d2), s/veh | 21.9 | 1.5 | 0.1 | 44.9 | 0.3 | 0.0 | 1.8 | 0.0 | 9.1 | 2.8 | 0.0 | 0.7 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 2.1 | 23.5 | 0.9 | 5.6 | 0.1 | 0.0 | 3.4 | 0.0 | 7.9 | 1.8 | 0.0 | 2.1 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 108.7 | 18.5 | 8.5 | 124.9 | 0.3 | 0.0 | 79.5 | 0.0 | 86.2 | 87.8 | 0.0 | 72.0 |
| LnGrp LOS | F | B | A | F | A | A | E | A | F | F | A | E |
| Approach Vol, veh/h | | 2813 | | | 3360 | | | 238 | | | | 86 |
| Approach Delay, s/veh | | 19.5 | | | 4.2 | | | 84.1 | | | | 79.0 |
| Approach LOS | | B | | | A | | | F | | | | E |
| Timer - Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 12.1 | 138.3 | | 29.6 | 17.0 | 133.4 | | 29.6 | | | | |
| Change Period (Y+Rc), s | 7.0 | 7.0 | | 7.5 | 7.0 | 7.0 | | 7.5 | | | | |
| Max Green Setting (Gmax), s | 10.0 | 109.0 | | 39.5 | 10.0 | 109.0 | | 39.5 | | | | |
| Max Q Clear Time (g_c+I1), s | 5.9 | 2.0 | | 20.1 | 12.0 | 62.3 | | 21.8 | | | | |
| Green Ext Time (p_c), s | 0.0 | 92.1 | | 0.9 | 0.0 | 38.5 | | 0.3 | | | | |

Intersection Summary

| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 14.7 |
| HCM 6th LOS | B |

Notes

User approved pedestrian interval to be less than phase max green.

Timings

Future Total PM (2026)

2: Ave of the PGA/Central Blvd. & PGA Blvd.

09/03/2021

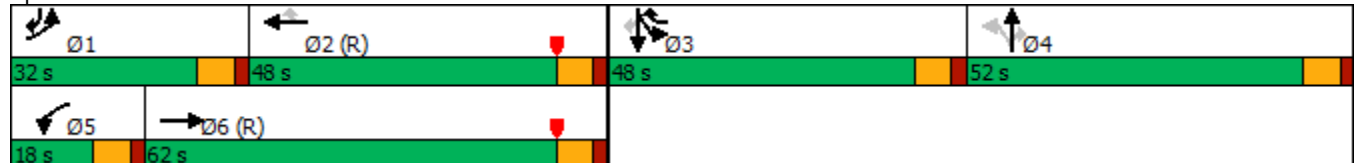


| Lane Group | EBL | EBT | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Lane Configurations | | | | | | | | | | | |
| Traffic Volume (vph) | 717 | 2202 | 99 | 3012 | 296 | 61 | 25 | 58 | 236 | 27 | 1049 |
| Future Volume (vph) | 717 | 2202 | 99 | 3012 | 296 | 61 | 25 | 58 | 236 | 27 | 1049 |
| Turn Type | Prot | NA | Prot | NA | pm+ov | Perm | NA | Perm | Split | NA | pm+ov |
| Protected Phases | 1 | 6 | 5 | 2 | 3 | | 4 | | 3 | 3 | 1 |
| Permitted Phases | | | | | 2 | 4 | | 4 | | | 3 |
| Detector Phase | 1 | 6 | 5 | 2 | 3 | 4 | 4 | 4 | 3 | 3 | 1 |
| Switch Phase | | | | | | | | | | | |
| Minimum Initial (s) | 4.0 | 20.0 | 4.0 | 20.0 | 5.0 | 4.0 | 4.0 | 4.0 | 5.0 | 5.0 | 4.0 |
| Minimum Split (s) | 12.0 | 27.0 | 12.0 | 27.0 | 12.0 | 25.0 | 25.0 | 25.0 | 12.0 | 12.0 | 12.0 |
| Total Split (s) | 32.0 | 62.0 | 18.0 | 48.0 | 48.0 | 52.0 | 52.0 | 52.0 | 48.0 | 48.0 | 32.0 |
| Total Split (%) | 17.8% | 34.4% | 10.0% | 26.7% | 26.7% | 28.9% | 28.9% | 28.9% | 26.7% | 26.7% | 17.8% |
| Yellow Time (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| All-Red Time (s) | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 |
| Lead/Lag | Lead | Lag | Lead | Lag | Lead | Lag | Lag | Lag | Lead | Lead | Lead |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | C-Max | None | C-Max | None | None | None | None | None | None | None |
| Act Effct Green (s) | 70.7 | 92.6 | 19.1 | 41.0 | 69.9 | | 18.3 | 18.3 | 21.9 | 21.9 | 92.7 |
| Actuated g/C Ratio | 0.39 | 0.51 | 0.11 | 0.23 | 0.39 | | 0.10 | 0.10 | 0.12 | 0.12 | 0.52 |
| v/c Ratio | 0.58 | 0.94 | 0.57 | 2.83 | 0.47 | | 0.71 | 0.21 | 0.69 | 0.70 | 1.13 |
| Control Delay | 62.9 | 37.6 | 88.8 | 847.1 | 27.3 | | 104.6 | 1.6 | 92.1 | 92.7 | 92.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 62.9 | 37.6 | 88.8 | 847.1 | 27.3 | | 104.6 | 1.6 | 92.1 | 92.7 | 92.0 |
| LOS | E | D | F | F | C | | F | A | F | F | F |
| Approach Delay | | 43.8 | | 753.7 | | | 63.0 | | | 92.1 | |
| Approach LOS | | D | | F | | | E | | | F | |

Intersection Summary

Cycle Length: 180
 Actuated Cycle Length: 180
 Offset: 111 (62%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow
 Natural Cycle: 150
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 2.83
 Intersection Signal Delay: 361.2
 Intersection LOS: F
 Intersection Capacity Utilization 145.3%
 ICU Level of Service H
 Analysis Period (min) 15

Splits and Phases: 2: Ave of the PGA/Central Blvd. & PGA Blvd.



Queues

Future Total PM (2026)

2: Ave of the PGA/Central Blvd. & PGA Blvd.

09/03/2021



| Lane Group | EBL | EBT | WBL | WBT | WBR | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|-------|------|-------|------|-------|------|------|------|-------|
| Lane Group Flow (vph) | 779 | 2445 | 108 | 3274 | 322 | 93 | 63 | 141 | 145 | 1140 |
| v/c Ratio | 0.58 | 0.94 | 0.57 | 2.83 | 0.47 | 0.71 | 0.21 | 0.69 | 0.70 | 1.13 |
| Control Delay | 62.9 | 37.6 | 88.8 | 847.1 | 27.3 | 104.6 | 1.6 | 92.1 | 92.7 | 92.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 62.9 | 37.6 | 88.8 | 847.1 | 27.3 | 104.6 | 1.6 | 92.1 | 92.7 | 92.0 |
| Queue Length 50th (ft) | 389 | 549 | 124 | ~2413 | 184 | 108 | 0 | 171 | 176 | ~1397 |
| Queue Length 95th (ft) | 507 | #1330 | 193 | #2460 | 258 | 172 | 0 | 245 | 252 | #1729 |
| Internal Link Dist (ft) | | 1260 | | 818 | | 633 | | | 653 | |
| Turn Bay Length (ft) | 270 | | 350 | | 240 | | 150 | 200 | | |
| Base Capacity (vph) | 1349 | 2609 | 188 | 1158 | 839 | 324 | 509 | 382 | 387 | 1013 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.58 | 0.94 | 0.57 | 2.83 | 0.38 | 0.29 | 0.12 | 0.37 | 0.37 | 1.13 |

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis

Future Total PM (2026)

2: Ave of the PGA/Central Blvd. & PGA Blvd.

09/03/2021



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------|------|------|------|------|-------|-------|------|-------|------|-------|-------|-------|
| Lane Configurations | ↖↗ | ↕↗ | | ↖ | ↕↕↕ | ↗ | | ↖ | ↗ | ↖ | ↕↖ | ↗ |
| Traffic Volume (vph) | 717 | 2202 | 48 | 99 | 3012 | 296 | 61 | 25 | 58 | 236 | 27 | 1049 |
| Future Volume (vph) | 717 | 2202 | 48 | 99 | 3012 | 296 | 61 | 25 | 58 | 236 | 27 | 1049 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 7.0 | 7.0 | | 7.0 | 7.0 | 7.0 | | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 |
| Lane Util. Factor | 0.97 | 0.91 | | 1.00 | 0.91 | 1.00 | | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 |
| Frt | 1.00 | 1.00 | | 1.00 | 1.00 | 0.85 | | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | 1.00 | | 0.97 | 1.00 | 0.95 | 0.96 | 1.00 |
| Satd. Flow (prot) | 3433 | 5069 | | 1770 | 5085 | 1583 | | 1799 | 1583 | 1681 | 1702 | 1583 |
| Flt Permitted | 0.95 | 1.00 | | 0.95 | 1.00 | 1.00 | | 0.70 | 1.00 | 0.95 | 0.96 | 1.00 |
| Satd. Flow (perm) | 3433 | 5069 | | 1770 | 5085 | 1583 | | 1296 | 1583 | 1681 | 1702 | 1583 |
| Peak-hour factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 779 | 2393 | 52 | 108 | 3274 | 322 | 66 | 27 | 63 | 257 | 29 | 1140 |
| RTOR Reduction (vph) | 0 | 1 | 0 | 0 | 0 | 73 | 0 | 0 | 57 | 0 | 0 | 198 |
| Lane Group Flow (vph) | 779 | 2444 | 0 | 108 | 3274 | 249 | 0 | 93 | 6 | 141 | 145 | 942 |
| Turn Type | Prot | NA | | Prot | NA | pm+ov | Perm | NA | Perm | Split | NA | pm+ov |
| Protected Phases | 1 | 6 | | 5 | 2 | 3 | | 4 | | 3 | 3 | 1 |
| Permitted Phases | | | | | | 2 | 4 | | 4 | | | 3 |
| Actuated Green, G (s) | 70.7 | 92.7 | | 19.1 | 41.1 | 63.0 | | 18.3 | 18.3 | 21.9 | 21.9 | 92.6 |
| Effective Green, g (s) | 70.7 | 92.7 | | 19.1 | 41.1 | 63.0 | | 18.3 | 18.3 | 21.9 | 21.9 | 92.6 |
| Actuated g/C Ratio | 0.39 | 0.52 | | 0.11 | 0.23 | 0.35 | | 0.10 | 0.10 | 0.12 | 0.12 | 0.51 |
| Clearance Time (s) | 7.0 | 7.0 | | 7.0 | 7.0 | 7.0 | | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Lane Grp Cap (vph) | 1348 | 2610 | | 187 | 1161 | 615 | | 131 | 160 | 204 | 207 | 814 |
| v/s Ratio Prot | 0.23 | 0.48 | | 0.06 | c0.64 | 0.05 | | | | 0.08 | 0.09 | c0.45 |
| v/s Ratio Perm | | | | | | 0.11 | | c0.07 | 0.00 | | | 0.14 |
| v/c Ratio | 0.58 | 0.94 | | 0.58 | 2.82 | 0.40 | | 0.71 | 0.04 | 0.69 | 0.70 | 1.16 |
| Uniform Delay, d1 | 42.9 | 40.9 | | 76.6 | 69.5 | 44.3 | | 78.3 | 72.9 | 75.8 | 75.9 | 43.7 |
| Progression Factor | 1.36 | 0.75 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Incremental Delay, d2 | 0.4 | 6.1 | | 4.3 | 821.4 | 0.4 | | 16.2 | 0.1 | 9.7 | 10.2 | 84.4 |
| Delay (s) | 58.9 | 36.7 | | 80.9 | 890.8 | 44.7 | | 94.4 | 73.0 | 85.5 | 86.1 | 128.1 |
| Level of Service | E | D | | F | F | D | | F | E | F | F | F |
| Approach Delay (s) | | 42.1 | | | 793.7 | | | 85.8 | | | 119.6 | |
| Approach LOS | | D | | | F | | | F | | | F | |

Intersection Summary

| | | | |
|-----------------------------------|--------|---------------------------|------|
| HCM 2000 Control Delay | 383.0 | HCM 2000 Level of Service | F |
| HCM 2000 Volume to Capacity ratio | 1.55 | | |
| Actuated Cycle Length (s) | 180.0 | Sum of lost time (s) | 28.0 |
| Intersection Capacity Utilization | 145.3% | ICU Level of Service | H |
| Analysis Period (min) | 15 | | |

c Critical Lane Group

| Intersection | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 1.4 | | | | | | |
| Movement | EBL | EBR | NBL | NBT | SBU | SBT | SBR |
| Lane Configurations | | | | | | | |
| Traffic Vol, veh/h | 50 | 1 | 0 | 169 | 0 | 138 | 24 |
| Future Vol, veh/h | 50 | 1 | 0 | 169 | 0 | 138 | 24 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | - | None |
| Storage Length | 0 | - | - | - | 150 | - | - |
| Veh in Median Storage, # | 1 | - | - | 0 | - | 0 | - |
| Grade, % | 0 | - | - | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 54 | 1 | 0 | 184 | 0 | 150 | 26 |

| Major/Minor | Minor2 | Major1 | | Major2 | | |
|----------------------|--------|--------|------|--------|------|---|
| Conflicting Flow All | 255 | 88 | 176 | 0 | 184 | 0 |
| Stage 1 | 163 | - | - | - | - | - |
| Stage 2 | 92 | - | - | - | - | - |
| Critical Hdwy | 6.84 | 6.94 | 4.14 | - | 6.44 | - |
| Critical Hdwy Stg 1 | 5.84 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.84 | - | - | - | - | - |
| Follow-up Hdwy | 3.52 | 3.32 | 2.22 | - | 2.52 | - |
| Pot Cap-1 Maneuver | 712 | 953 | 1398 | - | 1096 | - |
| Stage 1 | 849 | - | - | - | - | - |
| Stage 2 | 921 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 712 | 953 | 1398 | - | 1096 | - |
| Mov Cap-2 Maneuver | 725 | - | - | - | - | - |
| Stage 1 | 849 | - | - | - | - | - |
| Stage 2 | 921 | - | - | - | - | - |

| Approach | EB | NB | SB |
|----------------------|------|----|----|
| HCM Control Delay, s | 10.4 | 0 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBU | SBT | SBR |
|-----------------------|------|-----|-------|------|-----|-----|
| Capacity (veh/h) | 1398 | - | 728 | 1096 | - | - |
| HCM Lane V/C Ratio | - | - | 0.076 | - | - | - |
| HCM Control Delay (s) | 0 | - | 10.4 | 0 | - | - |
| HCM Lane LOS | A | - | B | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | 0.2 | 0 | - | - |

APPENDIX D: SIGHT DISTANCE EXHIBIT AND PROPOSED DRIVEWAY IMPROVEMENTS

Plotted By: Haacke, Dimitri Sheet Set: Kha Layout: Layout1 April 09, 2021 03:17:00pm C:\Users\dimitri.haacke\OneDrive - KH\Encompass\Sight Triangles.dwg
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ENCOMPASS
BALLEN ISLES

EXHIBIT - SIGHT TRIANGLE

SHEET NUMBER

EX-1

APPENDIX E: OPERATIONAL ANALYSIS MEMORANDUM



MEMORANDUM

From: Adam B. Kerr
 Kimley-Horn and Associates, Inc.

Date: February 1, 2022

**Subject: Encompass Health Operational Analysis
 Palm Beach Gardens, Florida**

Kimley-Horn has conducted an operation analysis of BallenIsles Drive to evaluate the potential impacts of the proposed Encompass site. This analysis evaluates the interaction of the additional traffic with the existing traffic and illustrates proposed modifications to enhance the safety and operations.

BACKGROUND

The proposed Encompass facility is anticipated to generate 736 daily trips, 61 AM peak hour trips (7:00 AM – 9:00 AM), and 67 PM peak hour trips (4:00 PM to 6:00 PM) based on rates and equations published by the Institute of Transportation Engineers and accepted by Palm Beach Gardens and Palm Beach County. Table 1 includes the proposed trip generation.

**Table 1
 Trip Generation Potential**

| Land Use | Intensity | Daily Trips | AM Peak Hour | | | PM Peak Hour | | |
|--|----------------------|---------------------------------------|--------------|-----------|---------------------------------------|--------------|-----------|----------------|
| | | | Total | In | Out | Total | In | Out |
| Proposed Scenario | | | | | | | | |
| Hospital | 76.319 KSF | 818 | 68 | 46 | 22 | 74 | 24 | 50 |
| | <i>Subtotal</i> | 818 | 68 | 46 | 22 | 74 | 24 | 50 |
| Internal Capture | | | | | | | | |
| Hospital | | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | <i>Subtotal</i> | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-By Capture | | | | | | | | |
| Hospital | 10.0% | 82 | 7 | 5 | 2 | 7 | 2 | 5 |
| | <i>Subtotal</i> | 82 | 7 | 5 | 2 | 7 | 2 | 5 |
| Driveway Volumes | | 818 | 68 | 46 | 22 | 74 | 24 | 50 |
| Net New External Trips | | 736 | 61 | 41 | 20 | 67 | 22 | 45 |
| Proposed Net External Trips-Existing Net New External Trips | | 736 | 61 | 41 | 20 | 67 | 22 | 45 |
| <u>Land Use</u> | <u>Daily</u> | <u>AM Peak Hour</u> | | | <u>PM Peak Hour</u> | | | <u>Pass By</u> |
| Hospital | 10.72 trips/1,000 sf | 0.89 trips/1,000 sf (68% In, 32% out) | | | 0.97 trips/1,000 sf (32% In, 68% out) | | | 10.0% |

Based on discussion with County and City staff, this site will most similarly represent the traffic volumes of a hospital use. For comparison, the proposed use will generate significantly less traffic than other common uses. For example, a similarly sized medical office building would generate 2,390 daily trips, 191 AM peak hour trips, and 238 PM peak hour trips. It is important to note that these are peak hour

projections, which typically coincide with a significant number of employee trips, and traffic volumes will be significantly less throughout the day.

TRAFFIC ANALYSIS

Traffic volumes at the intersection of BallenIsles Drive & the proposed project driveway were based on traffic counts collected on October 19, 2021. Traffic volumes at the intersection of BallenIsles Drive & PGA Boulevard were based on traffic counts by the Palm Beach County Traffic Division on April 25, 2018. These counts were collected when the guard house was operating under normal conditions, processing residents and visitors, and has been adjusted using historical growth rates and adjustment factors provided by the Florida Department of Transportation to represent future background (2026) peak season conditions. BallenIsles Drive is a four-lane roadway which is capable of handling much higher volume of traffic than currently utilizes the roadway.

Typically, residential developments generate more outbound traffic in the AM peak hour compared to inbound traffic, and more inbound PM peak traffic compared to the outbound traffic. However, because this is the primary access point for guests and service vehicles, this entrance to BallenIsles serves more inbound traffic in the AM peak hour, and more outbound traffic in the PM peak hour. This correlates with the peak directions of traffic for the proposed project; in the morning when the peak direction of traffic flow for BallenIsles is inbound, the peak direction for Encompass is inbound, and vice-versa in the afternoon. This actually creates fewer conflicts; for example, in the afternoon, traffic exiting Encompass only crosses the lower-volume inbound traffic entering BallenIsles. Although it is not anticipated that the queue from the BallenIsles guard house would extend north to the Encompass driveway, even if that were to happen, it would not create issues with that driveway. BallenIsles drive has its highest volume in the AM peak hour with a higher proportionate of service vehicles needing to check in at the guard house. At this time of day, there is very little traffic is exiting Encompass – 20 vehicles per hour or one vehicle every three minutes. With such low volume exiting Encompass, there is more than ample opportunity for clear path even on the off chance that BallenIsles Drive is backed up to the driveway.

Based on information provided by the tenant, the shift changes for employees will be 7:00 AM and 7:00 PM; therefore, only the morning shift change overlaps with peak hours of BallenIsles traffic. Patient traffic will also be limited; the average stay is 13 days, so traffic associated with moving patients into and out of the facility will be limited. It should be noted the Homeowners Association requires all commercial vendors to enter after 8:00 AM; therefore, the peak of commercial traffic queued at the guard house will not coincide with the shift change of this facility. Furthermore, walk-in patients are not accepted. It is important to remember that the traffic characteristics are very different than medical office buildings, which see outpatient visitors throughout the day, with a much shorter (hours) turnover time. This equates to much less traffic than a medical office outpatient facility.

The peak season traffic volumes were then analyzed using *Synchro* software, which is based on methodologies presented in the *Institute of Traffic Engineers Highway Capacity Manual*. The 95th percentile vehicular queues were determined based on this analysis; the 95th percentile represents

the length of queue that will not be exceeded 95 percent of the time and is the professional accepted measurement for determining maximum queue length.

The anticipated project traffic volumes from the Encompass Health facility were then added to the future background volumes and analyzed using *Synchro* software. The 95th percentile queues were then reported. Table 2 illustrates the existing and proposed queues. As can be seen, the expected northbound vehicular queues are anticipated to increase by 25 feet or approximately one (1) vehicle length in the AM peak hour and 69 feet or approximately three (3) vehicle lengths in the PM peak hour. All queues are anticipated to be contained within the existing turn lane storage areas.

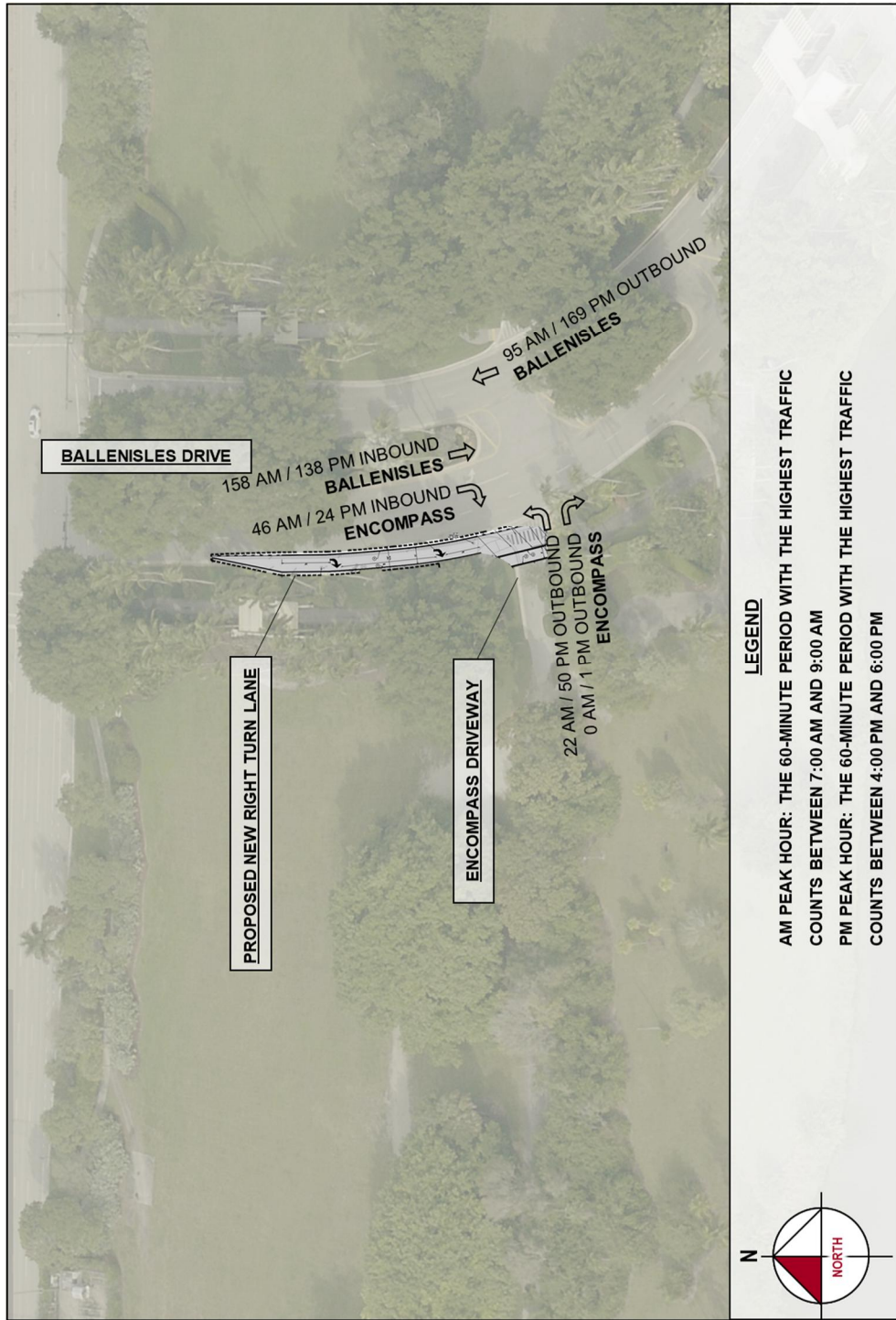
**Table 2
95th Percentile Queues – BallenIsles Drive & PGA Boulevard**

| | Eastbound Right | Westbound Right | Northbound Left/Through | Northbound Right |
|-----------------------------|-----------------|-----------------|-------------------------|------------------|
| Storage Area (ft) | 90 | 420 | 300 | 300 |
| Background AM Queue (ft) | 12 | 77 | 101 | 29 |
| Future Total AM Queue (ft) | 17 | 105 | 105 | 54 |
| AM Peak Queue Increase (ft) | +5 | +32 | +4 | +25 |
| Background PM Queue (ft) | 17 | 52 | 131 | 95 |
| Future Total PM Queue (ft) | 22 | 64 | 147 | 164 |
| PM Peak Queue Increase (ft) | +5 | +12 | +16 | +69 |

MEDIAN OPENING MODIFICATIONS

As discussed above, the traffic movements associated with the Encompass Health facility be complimentary to the existing traffic patterns; when the majority of the traffic is entering BallenIsles, the majority of traffic will be entering the Encompass facility, with less traffic exiting and crossing the inbound flow to BallenIsles. Figure 1 illustrates the traffic volumes. As can be seen, the conflicting volumes at the median opening on BallenIsles Drive are relatively low. In the AM peak hour, only 22 vehicles are anticipated to exit the site and cross BallenIsles Drive, which equates to one vehicle every three minutes. In the PM peak hour, 50 vehicles will exit the facility, which is less than one vehicle per minute. It is important to note that these are peak hour projections, which typically coincide with a significant number of employee trips, and traffic volumes will be significantly less throughout the day.

Figure 1
Peak Hour Trip Projections



Modifications are being proposed to the median opening in BallenIsles Drive to enhance the operations and safety at this location. Striping and signage are proposed to be added to reduce conflict within the median opening. Furthermore, stop signs are proposed to be added within the media to reinforce that exiting traffic must stop and allow traffic exiting the guard house to pass before turning onto BallenIsles Drive. By providing clear striping and signage within the median opening, it is established that only one vehicle at a time can queue within the median. Figure 2 shows the proposed modifications. Signalization would not be appropriate or warranted at this location.

Additionally, a right-turn lane is being proposed entering the Encompass site from BallenIsles Drive. Although right-turn lanes would not be constructed for low volumes of traffic, it is being proposed at this location so that traffic entering the Encompass Health site does not impede the flow of traffic entering BallenIsles.

This analysis demonstrates that the anticipated traffic generated by the Encompass Health facility will not result in detrimental traffic operations along BallenIsles Boulevard. The conflicting traffic volumes are very low – less than one car per minute in the worst-case peak hour scenario. Additionally, a turn lane is being added to BallenIsles Drive to further reduce the impact of this project's traffic on BallenIsles Drive and striping and signage are being added to the median opening on BallenIsles to enhance safety and further reinforce that exiting traffic must stop for exiting BallenIsles traffic. Should you have any question regarding the information provided herein, please contact me via telephone at (561) 840-0874 or via e-mail at adam.kerr@kimley-horn.com.

k:\wpb_tpto\0480\048028008 - ballenisles drive site\2022-2-01 operational analysis.docx

Figure 2
Proposed Median Modifications



ATTACHMENTS

VOLUME DEVELOPMENT SHEET
 BALLENSLES WEST PARCEL
 BallenIsles Dr. & Project Dwy.

AM Peak Hour

| | Northbound | | | Southbound | | | Eastbound | | | Westbound | | | |
|-----------------------------|------------|------|----|------------|------|-------|-----------|------|------|-----------|------|----|----------|
| | LT | Thru | RT | LT | Thru | RT | LT | Thru | RT | LT | Thru | RT | |
| Peak Season 2021 Volumes* | 0 | 85 | 0 | 0 | 141 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2,018 |
| Background Traffic Volumes | 0 | 95 | 0 | 0 | 158 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Project Traffic | | | | | | | | | | | | | |
| Inbound Traffic Assignment | 1.0% | | | | | 99.0% | | | | | | | Inbound |
| Inbound Traffic Volumes | | | | | | 46 | | | | | | | 46 |
| Outbound Traffic Assignment | | | | | | | 99.0% | | 1.0% | | | | Outbound |
| Outbound Traffic Volumes | | | | | | | 22 | | | | | | 22 |
| Project Traffic | 0 | 0 | 0 | 0 | 0 | 46 | 22 | 0 | 0 | 0 | 0 | 0 | |
| TOTAL TRAFFIC | 0 | 95 | 0 | 0 | 158 | 46 | 22 | 0 | 0 | 0 | 0 | 0 | |

PM Peak Hour

| | Northbound | | | Southbound | | | Eastbound | | | Westbound | | | |
|-----------------------------|------------|------|----|------------|------|-------|-----------|------|------|-----------|------|----|----------|
| | LT | Thru | RT | LT | Thru | RT | LT | Thru | RT | LT | Thru | RT | |
| Peak Season 2021 Volumes* | 0 | 151 | 0 | 0 | 123 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2,018 |
| Background Traffic Volumes | 0 | 169 | 0 | 0 | 138 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Project Traffic | | | | | | | | | | | | | |
| Inbound Traffic Assignment | 1.0% | | | | | 99.0% | | | | | | | Inbound |
| Inbound Traffic Volumes | | | | | | 24 | | | | | | | 24 |
| Outbound Traffic Assignment | | | | | | | 99.0% | | 1.0% | | | | Outbound |
| Outbound Traffic Volumes | | | | | | | 50 | | 1 | | | | 50 |
| Project Traffic | 0 | 0 | 0 | 0 | 0 | 24 | 50 | 0 | 1 | 0 | 0 | 0 | |
| TOTAL TRAFFIC | 0 | 169 | 0 | 0 | 138 | 24 | 50 | 0 | 1 | 0 | 0 | 0 | |

*Volume data for this location extrapolated from counts at intersection of BallenIsles Dr. & PGA Boulevard

VOLUME DEVELOPMENT SHEET
BALLENISLES WEST PARCEL
 BallenIsles Dr. & PGA Blvd.

Growth Rate = 2.31%
 Peak Season = 1.01 1.01
 Buildout Year = 2026 2026

AM Peak Hour

| | Northbound | | | Southbound | | | Eastbound | | | Westbound | | | |
|---|------------|------|-------|------------|------|----|-----------|-------|-------|-----------|-------|----|---------------------------------|
| | LT | Thru | RT | LT | Thru | RT | LT | Thru | RT | LT | Thru | RT | |
| Existing Volume on 4/25/2018 | 36 | 1 | 42 | 28 | 0 | 15 | 30 | 2,181 | 44 | 86 | 1,753 | 59 | 2,018 |
| 2021 Peak Season Volume | 39 | 1 | 45 | 30 | 0 | 16 | 32 | 2,359 | 48 | 93 | 1,896 | 64 | |
| Traffic Volume Growth | 5 | 0 | 5 | 4 | 0 | 2 | 4 | 285 | 6 | 11 | 229 | 8 | |
| Committed Development | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 420 | 0 | 0 | 359 | 0 | |
| 1.0% Traffic Volume Growth | 2 | 0 | 2 | 2 | 0 | 1 | 2 | 120 | 2 | 5 | 97 | 3 | |
| Committed + 1.0% Growth | 2 | 0 | 2 | 2 | 0 | 1 | 2 | 540 | 2 | 5 | 456 | 3 | |
| Max (Committed + 1.0% or Historic Growth) | 5 | 0 | 5 | 4 | 0 | 2 | 4 | 540 | 6 | 11 | 456 | 8 | |
| Background Traffic Volumes | 44 | 1 | 50 | 34 | 0 | 18 | 36 | 2,899 | 54 | 104 | 2,352 | 72 | |
| Project Traffic | | | | | | | | | | | | | |
| Inbound Traffic Assignment | | | | | 1.0% | | | | 15.0% | 83.0% | | | Inbound 46 Outbound 22 |
| Inbound Traffic Volumes | | | | | | | | | 7 | 38 | | | |
| Outbound Traffic Assignment | 15.0% | 1.0% | 83.0% | | | | | | | | | | |
| Outbound Traffic Volumes | 3 | | 18 | | | | | | | | | | |
| Project Traffic | 3 | 0 | 18 | 0 | 0 | 0 | 0 | 0 | 7 | 38 | 0 | 0 | |
| Total Traffic w/o RTOR | 47 | 1 | 68 | 34 | 0 | 18 | 36 | 2,899 | 61 | 142 | 2,352 | 72 | |
| RTOR Reduction | | | | | | | | | | | | | |
| TOTAL TRAFFIC | 47 | 1 | 68 | 34 | 0 | 18 | 36 | 2,899 | 61 | 142 | 2,352 | 72 | |

PM Peak Hour

| | Northbound | | | Southbound | | | Eastbound | | | Westbound | | | |
|---|------------|------|-------|------------|------|----|-----------|-------|-------|-----------|-------|----|---------------------------------|
| | LT | Thru | RT | LT | Thru | RT | LT | Thru | RT | LT | Thru | RT | |
| Existing Volume on 4/25/2018 | 49 | 2 | 89 | 29 | 0 | 36 | 28 | 1,800 | 50 | 64 | 2,219 | 13 | 2,018 |
| 2021 Peak Season Volume | 53 | 2 | 96 | 31 | 0 | 39 | 30 | 1,947 | 54 | 69 | 2,400 | 14 | |
| Traffic Volume Growth | 6 | 0 | 12 | 4 | 0 | 5 | 4 | 236 | 7 | 8 | 290 | 2 | |
| Committed Development | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 441 | 0 | 0 | 457 | 0 | |
| 1.0% Traffic Volume Growth | 3 | 0 | 5 | 2 | 0 | 2 | 2 | 99 | 3 | 4 | 122 | 1 | |
| Committed + 1.0% Growth | 3 | 0 | 5 | 2 | 0 | 2 | 2 | 540 | 3 | 4 | 579 | 1 | |
| Max (Committed + 1.0% or Historic Growth) | 6 | 0 | 12 | 4 | 0 | 5 | 4 | 540 | 7 | 8 | 579 | 2 | |
| Background Traffic Volumes | 59 | 2 | 108 | 35 | 0 | 44 | 34 | 2,487 | 61 | 77 | 2,979 | 16 | |
| Project Traffic | | | | | | | | | | | | | |
| Inbound Traffic Assignment | | | | | 1.0% | | | | 15.0% | 83.0% | | | Inbound 24 Outbound 50 |
| Inbound Traffic Volumes | | | | | | | | | 4 | 20 | | | |
| Outbound Traffic Assignment | 15.0% | 1.0% | 83.0% | | | | | | | | | | |
| Outbound Traffic Volumes | 8 | 1 | 42 | | | | | | | | | | |
| Project Traffic | 8 | 1 | 42 | 0 | 0 | 0 | 0 | 0 | 4 | 20 | 0 | 0 | |
| Total Traffic w/o RTOR | 67 | 3 | 150 | 35 | 0 | 44 | 34 | 2,487 | 65 | 97 | 2,979 | 16 | |
| RTOR Reduction | | | | | | | | | | | | | |
| TOTAL TRAFFIC | 67 | 3 | 150 | 35 | 0 | 44 | 34 | 2,487 | 65 | 97 | 2,979 | 16 | |

CONTROLLER TIME SHEET

DATE TIMING INSTALLED: _____

| | |
|---|-------------------------|
| INTERSECTION: PGA BLVD & BALLENSISLE DR (TEMPORARY) | CONTROLLER TYPE: NAZTEC |
| SIGNAL # 14305 | SYSTEM # 445 |

| PHASE NUMBER | BOUND | TIMING INTERVAL | | | | | | | | | | DETECTOR SETTINGS | | | |
|--------------|-------|-----------------|---------|-------|-------|---------|---------|------|---------|---------|---------|-------------------|---------|--------------|----------------------------|
| | | MIN GREEN | GAP EXT | MAX 1 | MAX 2 | YEL CLR | RED CLR | WALK | PED CLR | MIN RCL | MAX RCL | | PED RCL | PHASE ENABLE | LOCKED CALLS |
| 1 | EBLT | 4.0 | 2.0 | 20.0 | | 5.0 | 2.0 | 0.0 | 0.0 | 0 | 0 | 0 | 1 | 0 | L1-NORMAL |
| 2 | WB | 15.0 | 4.0 | 60.0 | | 5.0 | 2.0 | 7.0 | 21.0 | 1 | 1 | 0 | 1 | 1 | L2-NORMAL |
| 3 | | | | | | | | | | | | | | | |
| 4 | NB | 6.0 | 2.0 | 20.0 | | 4.0 | 3.5 | 7.0 | 33.0 | 0 | 0 | 0 | 1 | 0 | L4-NORMAL L4R=D/(N(10)) |
| 5 | WBLT | 4.0 | 3.0 | 40.0 | | 5.0 | 2.0 | 0.0 | 0.0 | 0 | 0 | 0 | 1 | 0 | L5-NORMAL |
| 6 | EB | 15.0 | 4.0 | 60.0 | | 5.0 | 2.0 | 7.0 | 26.0 | 1 | 1 | 0 | 1 | 1 | L6-NORMAL |
| 7 | | | | | | | | | | | | | | | |
| 8 | SB | 6.0 | 2.0 | 20.0 | | 4.0 | 3.5 | 7.0 | 32.0 | 0 | 0 | 0 | 1 | 0 | L8-NORMAL L8R=D/(N(10)) |

| | PRE-EMPTION TIMING | | | | | | SPECIAL FUNCTIONS | | | | | |
|----------|--------------------|--------------|------------------------|-------------|-----------------|--------|---|------------|------------|--------------|------------|--|
| | DELAY BEFORE | GREEN BEFORE | PRE-EMPT 1 LOCK MEMORY | TRACK CLR Φ | TRACK CLR GREEN | EXIT Φ | START Φ | DUAL ENTRY | DET SWITCH | OUT OF FLASH | INTO FLASH | |
| R/R | | | | | | | 2.6 | 2,4,6,8 | 1,5 | 2,6 | 4,8 | |
| BRIDGE | | | | | | | Notes: 1. REFER TO SYSTEM TIMING AND ALT TIMING PLANS | | | | | |
| FIRE STN | | | | | | | 2. UPDATED TS | | | | | |
| BUS | | | | | | | 3. | | | | | |
| | | | | | | | 4. | | | | | |

TIMING DESIGNED BY: CEDRIC ANDERSON DATE: 2/11/2021 APPROVED BY: SUNIL GYAWALI, P.E., PTOE *[Signature]* DATE: 2/16/2021

SYSTEM TIMING SHEET

DATE TIMING INSTALLED: _____

| | | |
|--|-----------------------|--------------------------------|
| INTERSECTION: PGA BLVD & BALLENSIE DR (TEMPORARY) | SIGNAL # 14305 | CONTROLLER TYPE: NAZTEC |
| SYSTEM: | | SYSTEM # 445 |

| TOD SCHEDULER | | | | | | | | | | | |
|---------------|---------|-------|---------|-------|---------|---------|---------|-------|---------|------|---------|
| WEEKDAY | | | | | | WEEKEND | | | | | |
| TIME | PATTERN | TIME | PATTERN | TIME | PATTERN | TIME | PATTERN | TIME | PATTERN | TIME | PATTERN |
| 0:00 | 100 | 6:30 | 2 | 0:00 | 100 | 9:00 | 1 | 0:00 | 100 | 9:00 | 1 |
| 9:00 | 1 | 16:00 | 3 | 20:00 | 100 | | | 20:00 | 100 | | |
| 20:00 | 4 | | | | | | | | | | |

| TIMING PLANS | | | | | | | | | | | |
|--------------------|------|-------|------|-------|------|-------|------|-------|------|-------|------|
| PATTERN | 1 | 2 | 3 | 4 | 8 | | | | | | |
| CYCLE LENGTH (SEC) | 120 | 170 | 180 | 100 | 160 | | | | | | |
| OFFSET (SEC) | 116 | 27 | 134 | 81 | 10 | | | | | | |
| COORDINATED PHASE | 2 | 2 | 2 | 2 | | | | | | | |
| SEQUENCE | 1 | 1 | 1 | 1 | 1 | | | | | | |
| ALT TIMING PLAN | 1 | 2 | 3 | 2 | | | | | | | |
| FORCE-OFF 1 (SEC) | EBLT | SPLIT | MODE | SPLIT | MODE | SPLIT | MODE | SPLIT | MODE | SPLIT | MODE |
| FORCE-OFF 2 (SEC) | WB | 20 | NON | 17 | NON | 19 | NON | 25 | NON | | |
| FORCE-OFF 3 (SEC) | | 51 | MAX | 116 | MAX | 61 | MAX | 75 | MAX | | |
| FORCE-OFF 4 (SEC) | NB | 49 | NON | 47 | NON | 20 | NON | 60 | NON | | |
| FORCE-OFF 5 (SEC) | WBLT | 20 | NON | 17 | NON | 19 | NON | 40 | NON | | |
| FORCE-OFF 6 (SEC) | EB | 51 | MAX | 116 | MAX | 61 | MAX | 60 | MAX | | |
| FORCE-OFF 7 (SEC) | | | | | | | | | | | |
| FORCE-OFF 8 (SEC) | SB | 49 | NON | 47 | NON | 20 | NON | 60 | NON | | |

Special Features:

- 1) _____
- 2) _____
- 3) _____

| | |
|--|-------------------------|
| TIMING DESIGNED BY: CEDRIC ANDERSON | DATE: 11/25/2019 |
| APPROVED BY: | DATE: 8/16/2021 |

[1.1.6.1] ALTERNATE TIMING SHEET

INTERSECTION: PGA BLVD & BALLENSLE DR (TEMPORARY) SIGNAL # 14305 SYSTEM # 445

| ALT TIMING PLAN 1 | | | | | | | | | | | ALT TIMING PLAN 2 | | | | | | | | | | |
|-------------------|----------|-------|-------|--------|-----------|------|-----------|----------------|------------|-----------|-------------------|-------|-------|--------|-----------|------|-----------|----------------|------------|--|--|
| MIN GREEN | GAP TIME | MAX 1 | MAX 2 | YELLOW | RED CLEAR | WALK | PED CLEAR | ASSIGNED PHASE | BIKE CLEAR | MIN GREEN | GAP TIME | MAX 1 | MAX 2 | YELLOW | RED CLEAR | WALK | PED CLEAR | ASSIGNED PHASE | BIKE CLEAR | | |
| 1 | 4.0 | 2.0 | 20.0 | 8.0 | 5.0 | 2.0 | 0.0 | 0.0 | 1 | 1 | 4.0 | 2.0 | 20.0 | 8.0 | 5.0 | 2.0 | 0.0 | 0.0 | 1 | | |
| 2 | 15.0 | 4.0 | 60.0 | 39.0 | 5.0 | 2.0 | 7.0 | 21.0 | 2 | 2 | 15.0 | 4.0 | 60.0 | 39.0 | 5.0 | 2.0 | 7.0 | 21.0 | 2 | | |
| 3 | | | | | | | | | | 3 | | | | | | | | | | | |
| 4 | 6.0 | 2.0 | 18.0 | 12.0 | 4.0 | 3.5 | 7.0 | 33.0 | 4 | 4 | 6.0 | 2.0 | 20.0 | 10.0 | 4.0 | 3.5 | 7.0 | 33.0 | 4 | | |
| 5 | 4.0 | 3.0 | 40.0 | 8.0 | 5.0 | 2.0 | 0.0 | 0.0 | 5 | 5 | 4.0 | 3.0 | 40.0 | 8.0 | 5.0 | 2.0 | 0.0 | 0.0 | 5 | | |
| 6 | 15.0 | 4.0 | 60.0 | 39.0 | 5.0 | 2.0 | 7.0 | 26.0 | 6 | 6 | 15.0 | 4.0 | 60.0 | 39.0 | 5.0 | 2.0 | 7.0 | 26.0 | 6 | | |
| 7 | | | | | | | | | | 7 | | | | | | | | | | | |
| 8 | 6.0 | 2.0 | 18.0 | 12.0 | 4.0 | 3.5 | 7.0 | 32.0 | 8 | 8 | 6.0 | 2.0 | 20.0 | 10.0 | 4.0 | 3.5 | 7.0 | 32.0 | 8 | | |

| ALT TIMING PLAN 3 | | | | | | | | | | | ALT TIMING PLAN 4 | | | | | | | | | | |
|-------------------|----------|-------|-------|--------|-----------|------|-----------|----------------|------------|-----------|-------------------|-------|-------|--------|-----------|------|-----------|----------------|------------|--|--|
| MIN GREEN | GAP TIME | MAX 1 | MAX 2 | YELLOW | RED CLEAR | WALK | PED CLEAR | ASSIGNED PHASE | BIKE CLEAR | MIN GREEN | GAP TIME | MAX 1 | MAX 2 | YELLOW | RED CLEAR | WALK | PED CLEAR | ASSIGNED PHASE | BIKE CLEAR | | |
| 1 | 4.0 | 2.0 | 20.0 | 8.0 | 5.0 | 2.0 | 0.0 | 0.0 | 1 | 1 | | | | | | | | | | | |
| 2 | 15.0 | 4.0 | 60.0 | 39.0 | 5.0 | 2.0 | 7.0 | 21.0 | 2 | 2 | | | | | | | | | | | |
| 3 | | | | | | | | | | 3 | | | | | | | | | | | |
| 4 | 6.0 | 2.0 | 20.0 | 10.0 | 4.0 | 3.5 | 7.0 | 33.0 | 4 | 4 | | | | | | | | | | | |
| 5 | 4.0 | 3.0 | 40.0 | 8.0 | 5.0 | 2.0 | 0.0 | 0.0 | 5 | 5 | | | | | | | | | | | |
| 6 | 15.0 | 4.0 | 60.0 | 39.0 | 5.0 | 2.0 | 7.0 | 26.0 | 6 | 6 | | | | | | | | | | | |
| 7 | | | | | | | | | | 7 | | | | | | | | | | | |
| 8 | 6.0 | 2.0 | 20.0 | 10.0 | 4.0 | 3.5 | 7.0 | 32.0 | 8 | 8 | | | | | | | | | | | |

| ALT TIMING PLAN 5 | | | | | | | | | | | ALT TIMING PLAN ASSIGNMENTS | |
|-------------------|----------|-------|-------|--------|-----------|------|-----------|----------------|------------|-------------------|-----------------------------|--|
| MIN GREEN | GAP TIME | MAX 1 | MAX 2 | YELLOW | RED CLEAR | WALK | PED CLEAR | ASSIGNED PHASE | BIKE CLEAR | | | |
| 1 | | | | | | | | | | ALT TIMING PLAN 1 | PATTERN 1 | |
| 2 | | | | | | | | | | ALT TIMING PLAN 2 | PATTERN 2, 4 | |
| 3 | | | | | | | | | | ALT TIMING PLAN 3 | PATTERN 3 | |
| 4 | | | | | | | | | | ALT TIMING PLAN 4 | | |
| 5 | | | | | | | | | | ALT TIMING PLAN 5 | | |
| 6 | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | |

NOTES:

TIMING DESIGNED BY: CEDRIC ANDERSON
 APPROVED BY: SUNIL GYAWALI, P.E., PTOE *[Signature]*
 DATE: 11/25/2019 - 2/11/2021
 DATE: 2/16/2021

Timings

1: BallenIsles Dr./Old Palm Dr. & PGA Blvd.

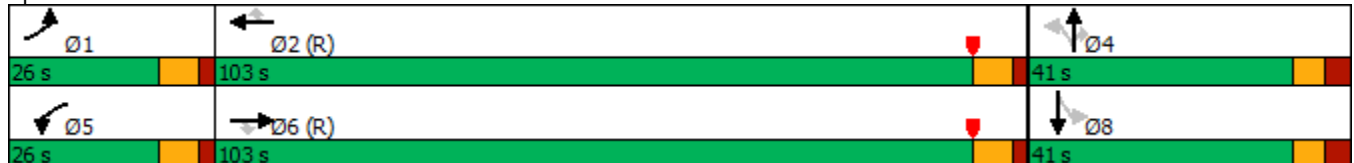


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT |
|----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Lane Configurations | ↖ | ↑↑↑ | ↗ | ↖ | ↑↑↑ | ↗ | | ↑ | ↗ | ↖ | ↘ |
| Traffic Volume (vph) | 36 | 2899 | 54 | 104 | 2352 | 72 | 44 | 1 | 50 | 34 | 0 |
| Future Volume (vph) | 36 | 2899 | 54 | 104 | 2352 | 72 | 44 | 1 | 50 | 34 | 0 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Perm | NA | Perm | Perm | NA |
| Protected Phases | 1 | 6 | | 5 | 2 | | | 4 | | | 8 |
| Permitted Phases | | | 6 | | | 2 | 4 | | 4 | 8 | |
| Detector Phase | 1 | 6 | 6 | 5 | 2 | 2 | 4 | 4 | 4 | 8 | 8 |
| Switch Phase | | | | | | | | | | | |
| Minimum Initial (s) | 4.0 | 15.0 | 15.0 | 4.0 | 15.0 | 15.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Minimum Split (s) | 11.0 | 40.0 | 40.0 | 11.0 | 35.0 | 35.0 | 47.5 | 47.5 | 47.5 | 46.5 | 46.5 |
| Total Split (s) | 26.0 | 103.0 | 103.0 | 26.0 | 103.0 | 103.0 | 41.0 | 41.0 | 41.0 | 41.0 | 41.0 |
| Total Split (%) | 15.3% | 60.6% | 60.6% | 15.3% | 60.6% | 60.6% | 24.1% | 24.1% | 24.1% | 24.1% | 24.1% |
| Yellow Time (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| All-Red Time (s) | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | | 7.5 | 7.5 | 7.5 | 7.5 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | | | | | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | | | | | |
| Recall Mode | None | C-Max | C-Max | None | C-Max | C-Max | None | None | None | None | None |
| Act Effct Green (s) | 9.1 | 120.8 | 120.8 | 16.1 | 130.3 | 130.3 | | 11.6 | 11.6 | 11.6 | 11.6 |
| Actuated g/C Ratio | 0.05 | 0.71 | 0.71 | 0.09 | 0.77 | 0.77 | | 0.07 | 0.07 | 0.07 | 0.07 |
| v/c Ratio | 0.41 | 0.87 | 0.05 | 0.68 | 0.66 | 0.06 | | 0.54 | 0.31 | 0.41 | 0.07 |
| Control Delay | 89.8 | 23.5 | 1.3 | 52.1 | 36.1 | 7.3 | | 96.8 | 11.7 | 87.4 | 0.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 89.8 | 23.5 | 1.3 | 52.1 | 36.1 | 7.3 | | 96.8 | 11.7 | 87.4 | 0.5 |
| LOS | F | C | A | D | D | A | | F | B | F | A |
| Approach Delay | | 23.9 | | | 35.9 | | | 52.2 | | | 56.9 |
| Approach LOS | | C | | | D | | | D | | | E |

Intersection Summary

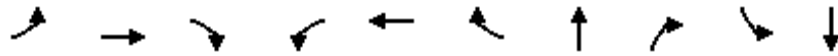
Cycle Length: 170
 Actuated Cycle Length: 170
 Offset: 27 (16%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow
 Natural Cycle: 150
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.87
 Intersection Signal Delay: 30.0
 Intersection LOS: C
 Intersection Capacity Utilization 88.8%
 ICU Level of Service E
 Analysis Period (min) 15

Splits and Phases: 1: BallenIsles Dr./Old Palm Dr. & PGA Blvd.



Queues

1: BallenIsles Dr./Old Palm Dr. & PGA Blvd.



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBT | NBR | SBL | SBT |
|-------------------------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 39 | 3151 | 59 | 113 | 2557 | 78 | 49 | 54 | 37 | 20 |
| v/c Ratio | 0.41 | 0.87 | 0.05 | 0.68 | 0.66 | 0.06 | 0.54 | 0.31 | 0.41 | 0.07 |
| Control Delay | 89.8 | 23.5 | 1.3 | 52.1 | 36.1 | 7.3 | 96.8 | 11.7 | 87.4 | 0.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 89.8 | 23.5 | 1.3 | 52.1 | 36.1 | 7.3 | 96.8 | 11.7 | 87.4 | 0.5 |
| Queue Length 50th (ft) | 43 | 911 | 0 | 129 | 713 | 11 | 54 | 0 | 40 | 0 |
| Queue Length 95th (ft) | 85 | 1209 | 12 | m77 | m301 | m5 | 101 | 29 | 81 | 0 |
| Internal Link Dist (ft) | | 1128 | | | 1260 | | 383 | | | 307 |
| Turn Bay Length (ft) | 275 | | 110 | 450 | | 280 | | | | |
| Base Capacity (vph) | 197 | 3613 | 1146 | 203 | 3898 | 1230 | 262 | 368 | 266 | 458 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.20 | 0.87 | 0.05 | 0.56 | 0.66 | 0.06 | 0.19 | 0.15 | 0.14 | 0.04 |

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis

Future Background AM (2026)

1: BallenIsles Dr./Old Palm Dr. & PGA Blvd.

01/21/2022



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------|------|-------|-------|-------|-------|-------|------|-------|------|------|------|------|
| Lane Configurations | ↘ | ↑↑↑ | ↗ | ↘ | ↑↑↑ | ↗ | | ↑ | ↗ | ↘ | ↗ | |
| Traffic Volume (vph) | 36 | 2899 | 54 | 104 | 2352 | 72 | 44 | 1 | 50 | 34 | 0 | 18 |
| Future Volume (vph) | 36 | 2899 | 54 | 104 | 2352 | 72 | 44 | 1 | 50 | 34 | 0 | 18 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | | 7.5 | 7.5 | 7.5 | 7.5 | |
| Lane Util. Factor | 1.00 | 0.91 | 1.00 | 1.00 | 0.91 | 1.00 | | 1.00 | 1.00 | 1.00 | 1.00 | |
| Frt | 1.00 | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 | | 1.00 | 0.85 | 1.00 | 0.85 | |
| Flt Protected | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | | 0.95 | 1.00 | 0.95 | 1.00 | |
| Satd. Flow (prot) | 1770 | 5085 | 1583 | 1770 | 5085 | 1583 | | 1776 | 1583 | 1770 | 1583 | |
| Flt Permitted | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | | 0.72 | 1.00 | 0.73 | 1.00 | |
| Satd. Flow (perm) | 1770 | 5085 | 1583 | 1770 | 5085 | 1583 | | 1334 | 1583 | 1351 | 1583 | |
| Peak-hour factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 39 | 3151 | 59 | 113 | 2557 | 78 | 48 | 1 | 54 | 37 | 0 | 20 |
| RTOR Reduction (vph) | 0 | 0 | 17 | 0 | 0 | 18 | 0 | 0 | 50 | 0 | 19 | 0 |
| Lane Group Flow (vph) | 39 | 3151 | 42 | 113 | 2557 | 60 | 0 | 49 | 4 | 37 | 1 | 0 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Perm | NA | Perm | Perm | NA | |
| Protected Phases | 1 | 6 | | 5 | 2 | | | 4 | | | 8 | |
| Permitted Phases | | | 6 | | | 2 | 4 | | 4 | 8 | | |
| Actuated Green, G (s) | 8.0 | 120.8 | 120.8 | 16.1 | 128.9 | 128.9 | | 11.6 | 11.6 | 11.6 | 11.6 | |
| Effective Green, g (s) | 8.0 | 120.8 | 120.8 | 16.1 | 128.9 | 128.9 | | 11.6 | 11.6 | 11.6 | 11.6 | |
| Actuated g/C Ratio | 0.05 | 0.71 | 0.71 | 0.09 | 0.76 | 0.76 | | 0.07 | 0.07 | 0.07 | 0.07 | |
| Clearance Time (s) | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | | 7.5 | 7.5 | 7.5 | 7.5 | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | |
| Lane Grp Cap (vph) | 83 | 3613 | 1124 | 167 | 3855 | 1200 | | 91 | 108 | 92 | 108 | |
| v/s Ratio Prot | 0.02 | c0.62 | | c0.06 | c0.50 | | | | | | | 0.00 |
| v/s Ratio Perm | | | 0.03 | | | 0.04 | | c0.04 | 0.00 | 0.03 | | |
| v/c Ratio | 0.47 | 0.87 | 0.04 | 0.68 | 0.66 | 0.05 | | 0.54 | 0.03 | 0.40 | 0.01 | |
| Uniform Delay, d1 | 78.9 | 18.7 | 7.3 | 74.4 | 10.0 | 5.2 | | 76.6 | 74.0 | 75.9 | 73.9 | |
| Progression Factor | 1.00 | 1.00 | 1.00 | 0.68 | 3.36 | 4.61 | | 1.00 | 1.00 | 1.00 | 1.00 | |
| Incremental Delay, d2 | 4.2 | 3.2 | 0.1 | 1.0 | 0.1 | 0.0 | | 6.0 | 0.1 | 2.9 | 0.0 | |
| Delay (s) | 83.1 | 21.9 | 7.4 | 51.7 | 33.7 | 23.8 | | 82.6 | 74.1 | 78.7 | 73.9 | |
| Level of Service | F | C | A | D | C | C | | F | E | E | E | |
| Approach Delay (s) | | 22.4 | | | 34.1 | | | 78.2 | | | 77.0 | |
| Approach LOS | | C | | | C | | | E | | | E | |

Intersection Summary

| | | | |
|-----------------------------------|-------|---------------------------|------|
| HCM 2000 Control Delay | 29.1 | HCM 2000 Level of Service | C |
| HCM 2000 Volume to Capacity ratio | 0.83 | | |
| Actuated Cycle Length (s) | 170.0 | Sum of lost time (s) | 21.5 |
| Intersection Capacity Utilization | 88.8% | ICU Level of Service | E |
| Analysis Period (min) | 15 | | |

c Critical Lane Group

Timings

1: BallenIsles Dr./Old Palm Dr. & PGA Blvd.

01/21/2022



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT |
|----------------------|------|-------|-------|------|-------|-------|-------|-------|-------|-------|-------|
| Lane Configurations | ↙ | ↑↑↑ | ↘ | ↙ | ↑↑↑ | ↘ | | ↑ | ↘ | ↙ | ↘ |
| Traffic Volume (vph) | 34 | 2487 | 61 | 77 | 2979 | 16 | 59 | 2 | 108 | 35 | 0 |
| Future Volume (vph) | 34 | 2487 | 61 | 77 | 2979 | 16 | 59 | 2 | 108 | 35 | 0 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Perm | NA | Perm | Perm | NA |
| Protected Phases | 1 | 6 | | 5 | 2 | | | 4 | | | 8 |
| Permitted Phases | | | 6 | | | 2 | 4 | | 4 | 8 | |
| Detector Phase | 1 | 6 | 6 | 5 | 2 | 2 | 4 | 4 | 4 | 8 | 8 |
| Switch Phase | | | | | | | | | | | |
| Minimum Initial (s) | 4.0 | 15.0 | 15.0 | 4.0 | 15.0 | 15.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Minimum Split (s) | 11.0 | 40.0 | 40.0 | 11.0 | 35.0 | 35.0 | 47.5 | 47.5 | 47.5 | 46.5 | 46.5 |
| Total Split (s) | 17.0 | 116.0 | 116.0 | 17.0 | 116.0 | 116.0 | 47.0 | 47.0 | 47.0 | 47.0 | 47.0 |
| Total Split (%) | 9.4% | 64.4% | 64.4% | 9.4% | 64.4% | 64.4% | 26.1% | 26.1% | 26.1% | 26.1% | 26.1% |
| Yellow Time (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| All-Red Time (s) | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | | 7.5 | 7.5 | 7.5 | 7.5 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | | | | | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | | | | | |
| Recall Mode | None | C-Max | C-Max | None | C-Max | C-Max | None | None | None | None | None |
| Act Effct Green (s) | 9.2 | 129.0 | 129.0 | 15.0 | 137.3 | 137.3 | | 14.5 | 14.5 | 14.5 | 14.5 |
| Actuated g/C Ratio | 0.05 | 0.72 | 0.72 | 0.08 | 0.76 | 0.76 | | 0.08 | 0.08 | 0.08 | 0.08 |
| v/c Ratio | 0.41 | 0.74 | 0.06 | 0.57 | 0.83 | 0.01 | | 0.63 | 0.55 | 0.36 | 0.23 |
| Control Delay | 95.4 | 18.1 | 1.9 | 60.4 | 46.0 | 0.2 | | 104.9 | 29.8 | 85.5 | 2.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 95.4 | 18.1 | 1.9 | 60.4 | 46.3 | 0.2 | | 104.9 | 29.8 | 85.5 | 2.5 |
| LOS | F | B | A | E | D | A | | F | C | F | A |
| Approach Delay | | 18.8 | | | 46.4 | | | 56.9 | | | 39.2 |
| Approach LOS | | B | | | D | | | E | | | D |

Intersection Summary

Cycle Length: 180
 Actuated Cycle Length: 180
 Offset: 134 (74%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow
 Natural Cycle: 150
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.83
 Intersection Signal Delay: 34.5
 Intersection LOS: C
 Intersection Capacity Utilization 86.1%
 ICU Level of Service E
 Analysis Period (min) 15

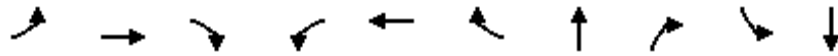
Splits and Phases: 1: BallenIsles Dr./Old Palm Dr. & PGA Blvd.



Queues

1: BallenIsles Dr./Old Palm Dr. & PGA Blvd.

01/21/2022



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBT | NBR | SBL | SBT |
|-------------------------|------|------|------|------|------|------|-------|------|------|------|
| Lane Group Flow (vph) | 37 | 2703 | 66 | 84 | 3238 | 17 | 66 | 117 | 38 | 48 |
| v/c Ratio | 0.41 | 0.74 | 0.06 | 0.57 | 0.83 | 0.01 | 0.63 | 0.55 | 0.36 | 0.23 |
| Control Delay | 95.4 | 18.1 | 1.9 | 60.4 | 46.0 | 0.2 | 104.9 | 29.8 | 85.5 | 2.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 95.4 | 18.1 | 1.9 | 60.4 | 46.3 | 0.2 | 104.9 | 29.8 | 85.5 | 2.5 |
| Queue Length 50th (ft) | 43 | 667 | 0 | 103 | 957 | 0 | 77 | 26 | 43 | 0 |
| Queue Length 95th (ft) | 87 | 865 | 17 | m52 | m200 | m0 | 131 | 95 | 84 | 0 |
| Internal Link Dist (ft) | | 1128 | | | 1260 | | 383 | | | 307 |
| Turn Bay Length (ft) | 275 | | 110 | 450 | | 280 | | | | |
| Base Capacity (vph) | 104 | 3643 | 1154 | 147 | 3880 | 1224 | 284 | 420 | 291 | 419 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 154 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.36 | 0.74 | 0.06 | 0.57 | 0.87 | 0.01 | 0.23 | 0.28 | 0.13 | 0.11 |

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis

Future Background PM (2026)

1: Ballensles Dr./Old Palm Dr. & PGA Blvd.

01/21/2022



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------|------|-------|-------|-------|-------|-------|------|-------|------|------|------|------|
| Lane Configurations | ↙ | ↑↑↑ | ↘ | ↙ | ↑↑↑ | ↘ | | ↑ | ↘ | ↙ | ↘ | |
| Traffic Volume (vph) | 34 | 2487 | 61 | 77 | 2979 | 16 | 59 | 2 | 108 | 35 | 0 | 44 |
| Future Volume (vph) | 34 | 2487 | 61 | 77 | 2979 | 16 | 59 | 2 | 108 | 35 | 0 | 44 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | | 7.5 | 7.5 | 7.5 | 7.5 | |
| Lane Util. Factor | 1.00 | 0.91 | 1.00 | 1.00 | 0.91 | 1.00 | | 1.00 | 1.00 | 1.00 | 1.00 | |
| Frt | 1.00 | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 | | 1.00 | 0.85 | 1.00 | 0.85 | |
| Flt Protected | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | | 0.95 | 1.00 | 0.95 | 1.00 | |
| Satd. Flow (prot) | 1770 | 5085 | 1583 | 1770 | 5085 | 1583 | | 1777 | 1583 | 1770 | 1583 | |
| Flt Permitted | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | | 0.70 | 1.00 | 0.71 | 1.00 | |
| Satd. Flow (perm) | 1770 | 5085 | 1583 | 1770 | 5085 | 1583 | | 1299 | 1583 | 1330 | 1583 | |
| Peak-hour factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 37 | 2703 | 66 | 84 | 3238 | 17 | 64 | 2 | 117 | 38 | 0 | 48 |
| RTOR Reduction (vph) | 0 | 0 | 19 | 0 | 0 | 4 | 0 | 0 | 86 | 0 | 44 | 0 |
| Lane Group Flow (vph) | 37 | 2703 | 47 | 84 | 3238 | 13 | 0 | 66 | 31 | 38 | 4 | 0 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Perm | NA | Perm | Perm | NA | |
| Protected Phases | 1 | 6 | | 5 | 2 | | | 4 | | | 8 | |
| Permitted Phases | | | 6 | | | 2 | 4 | | 4 | 8 | | |
| Actuated Green, G (s) | 8.0 | 129.0 | 129.0 | 15.0 | 136.0 | 136.0 | | 14.5 | 14.5 | 14.5 | 14.5 | |
| Effective Green, g (s) | 8.0 | 129.0 | 129.0 | 15.0 | 136.0 | 136.0 | | 14.5 | 14.5 | 14.5 | 14.5 | |
| Actuated g/C Ratio | 0.04 | 0.72 | 0.72 | 0.08 | 0.76 | 0.76 | | 0.08 | 0.08 | 0.08 | 0.08 | |
| Clearance Time (s) | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | | 7.5 | 7.5 | 7.5 | 7.5 | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | |
| Lane Grp Cap (vph) | 78 | 3644 | 1134 | 147 | 3842 | 1196 | | 104 | 127 | 107 | 127 | |
| v/s Ratio Prot | 0.02 | 0.53 | | c0.05 | c0.64 | | | | | | | 0.00 |
| v/s Ratio Perm | | | 0.03 | | | 0.01 | | c0.05 | 0.02 | 0.03 | | |
| v/c Ratio | 0.47 | 0.74 | 0.04 | 0.57 | 0.84 | 0.01 | | 0.63 | 0.24 | 0.36 | 0.03 | |
| Uniform Delay, d1 | 83.9 | 15.4 | 7.4 | 79.4 | 14.8 | 5.4 | | 80.2 | 77.6 | 78.3 | 76.3 | |
| Progression Factor | 1.00 | 1.00 | 1.00 | 0.75 | 2.82 | 1.00 | | 1.00 | 1.00 | 1.00 | 1.00 | |
| Incremental Delay, d2 | 4.5 | 1.4 | 0.1 | 0.5 | 0.2 | 0.0 | | 12.0 | 1.0 | 2.0 | 0.1 | |
| Delay (s) | 88.4 | 16.8 | 7.5 | 59.9 | 42.0 | 5.4 | | 92.2 | 78.6 | 80.3 | 76.4 | |
| Level of Service | F | B | A | E | D | A | | F | E | F | E | |
| Approach Delay (s) | | 17.6 | | | 42.2 | | | 83.5 | | | 78.1 | |
| Approach LOS | | B | | | D | | | F | | | E | |

Intersection Summary

| | | | |
|-----------------------------------|-------|---------------------------|------|
| HCM 2000 Control Delay | 33.1 | HCM 2000 Level of Service | C |
| HCM 2000 Volume to Capacity ratio | 0.83 | | |
| Actuated Cycle Length (s) | 180.0 | Sum of lost time (s) | 21.5 |
| Intersection Capacity Utilization | 86.1% | ICU Level of Service | E |
| Analysis Period (min) | 15 | | |

c Critical Lane Group

Timings

Future Total AM (2026)

1: BallenIsles Dr./Old Palm Dr. & PGA Blvd.

01/21/2022

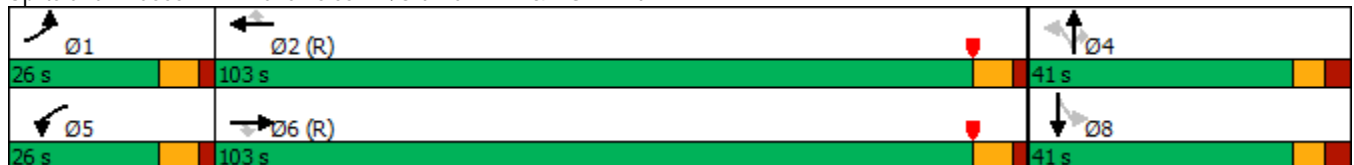


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT |
|----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Lane Configurations | ↖ | ↑↑↑ | ↗ | ↖ | ↑↑↑ | ↗ | | ↑ | ↗ | ↖ | ↗ |
| Traffic Volume (vph) | 36 | 2899 | 61 | 142 | 2352 | 72 | 47 | 1 | 68 | 34 | 0 |
| Future Volume (vph) | 36 | 2899 | 61 | 142 | 2352 | 72 | 47 | 1 | 68 | 34 | 0 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Perm | NA | Perm | Perm | NA |
| Protected Phases | 1 | 6 | | 5 | 2 | | | 4 | | | 8 |
| Permitted Phases | | | 6 | | | 2 | 4 | | 4 | 8 | |
| Detector Phase | 1 | 6 | 6 | 5 | 2 | 2 | 4 | 4 | 4 | 8 | 8 |
| Switch Phase | | | | | | | | | | | |
| Minimum Initial (s) | 4.0 | 15.0 | 15.0 | 4.0 | 15.0 | 15.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Minimum Split (s) | 11.0 | 40.0 | 40.0 | 11.0 | 35.0 | 35.0 | 47.5 | 47.5 | 47.5 | 46.5 | 46.5 |
| Total Split (s) | 26.0 | 103.0 | 103.0 | 26.0 | 103.0 | 103.0 | 41.0 | 41.0 | 41.0 | 41.0 | 41.0 |
| Total Split (%) | 15.3% | 60.6% | 60.6% | 15.3% | 60.6% | 60.6% | 24.1% | 24.1% | 24.1% | 24.1% | 24.1% |
| Yellow Time (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| All-Red Time (s) | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | | 7.5 | 7.5 | 7.5 | 7.5 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | | | | | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | | | | | |
| Recall Mode | None | C-Max | C-Max | None | C-Max | C-Max | None | None | None | None | None |
| Act Effect Green (s) | 9.1 | 116.0 | 116.0 | 20.5 | 129.9 | 129.9 | | 12.0 | 12.0 | 12.0 | 12.0 |
| Actuated g/C Ratio | 0.05 | 0.68 | 0.68 | 0.12 | 0.76 | 0.76 | | 0.07 | 0.07 | 0.07 | 0.07 |
| v/c Ratio | 0.41 | 0.91 | 0.06 | 0.72 | 0.66 | 0.06 | | 0.55 | 0.41 | 0.39 | 0.07 |
| Control Delay | 89.8 | 28.5 | 2.0 | 53.1 | 36.5 | 7.4 | | 97.1 | 20.7 | 85.8 | 0.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 89.8 | 28.5 | 2.0 | 53.1 | 36.5 | 7.4 | | 97.1 | 20.7 | 85.8 | 0.5 |
| LOS | F | C | A | D | D | A | | F | C | F | A |
| Approach Delay | | 28.7 | | | 36.6 | | | 52.2 | | | 55.9 |
| Approach LOS | | C | | | D | | | D | | | E |

Intersection Summary

Cycle Length: 170
 Actuated Cycle Length: 170
 Offset: 27 (16%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow
 Natural Cycle: 150
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.91
 Intersection Signal Delay: 33.0
 Intersection LOS: C
 Intersection Capacity Utilization 91.1%
 ICU Level of Service F
 Analysis Period (min) 15

Splits and Phases: 1: BallenIsles Dr./Old Palm Dr. & PGA Blvd.

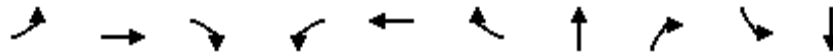


Queues

Future Total AM (2026)

1: BallenIsles Dr./Old Palm Dr. & PGA Blvd.

01/21/2022



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBT | NBR | SBL | SBT |
|-------------------------|------|-------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 39 | 3151 | 66 | 154 | 2557 | 78 | 52 | 74 | 37 | 20 |
| v/c Ratio | 0.41 | 0.91 | 0.06 | 0.72 | 0.66 | 0.06 | 0.55 | 0.41 | 0.39 | 0.07 |
| Control Delay | 89.8 | 28.5 | 2.0 | 53.1 | 36.5 | 7.4 | 97.1 | 20.7 | 85.8 | 0.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 89.8 | 28.5 | 2.0 | 53.1 | 36.5 | 7.4 | 97.1 | 20.7 | 85.8 | 0.5 |
| Queue Length 50th (ft) | 43 | 1017 | 0 | 177 | 716 | 11 | 57 | 0 | 40 | 0 |
| Queue Length 95th (ft) | 85 | #1399 | 17 | m105 | m297 | m5 | 105 | 54 | 81 | 0 |
| Internal Link Dist (ft) | | 1128 | | | 1260 | | 383 | | | 307 |
| Turn Bay Length (ft) | 275 | | 110 | 450 | | 280 | | | | |
| Base Capacity (vph) | 197 | 3469 | 1103 | 226 | 3885 | 1226 | 262 | 371 | 265 | 458 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.20 | 0.91 | 0.06 | 0.68 | 0.66 | 0.06 | 0.20 | 0.20 | 0.14 | 0.04 |

Intersection Summary

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

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis

Future Total AM (2026)

1: Ballensles Dr./Old Palm Dr. & PGA Blvd.

01/21/2022



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------|------|-------|-------|-------|-------|-------|------|-------|------|------|------|------|
| Lane Configurations | ↘ | ↑↑↑ | ↗ | ↘ | ↑↑↑ | ↗ | | ↑ | ↗ | ↘ | ↗ | |
| Traffic Volume (vph) | 36 | 2899 | 61 | 142 | 2352 | 72 | 47 | 1 | 68 | 34 | 0 | 18 |
| Future Volume (vph) | 36 | 2899 | 61 | 142 | 2352 | 72 | 47 | 1 | 68 | 34 | 0 | 18 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | | 7.5 | 7.5 | 7.5 | 7.5 | |
| Lane Util. Factor | 1.00 | 0.91 | 1.00 | 1.00 | 0.91 | 1.00 | | 1.00 | 1.00 | 1.00 | 1.00 | |
| Frt | 1.00 | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 | | 1.00 | 0.85 | 1.00 | 0.85 | |
| Flt Protected | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | | 0.95 | 1.00 | 0.95 | 1.00 | |
| Satd. Flow (prot) | 1770 | 5085 | 1583 | 1770 | 5085 | 1583 | | 1776 | 1583 | 1770 | 1583 | |
| Flt Permitted | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | | 0.72 | 1.00 | 0.72 | 1.00 | |
| Satd. Flow (perm) | 1770 | 5085 | 1583 | 1770 | 5085 | 1583 | | 1333 | 1583 | 1347 | 1583 | |
| Peak-hour factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 39 | 3151 | 66 | 154 | 2557 | 78 | 51 | 1 | 74 | 37 | 0 | 20 |
| RTOR Reduction (vph) | 0 | 0 | 21 | 0 | 0 | 18 | 0 | 0 | 69 | 0 | 19 | 0 |
| Lane Group Flow (vph) | 39 | 3151 | 45 | 154 | 2557 | 60 | 0 | 52 | 5 | 37 | 1 | 0 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Perm | NA | Perm | Perm | NA | |
| Protected Phases | 1 | 6 | | 5 | 2 | | | 4 | | | 8 | |
| Permitted Phases | | | 6 | | | 2 | 4 | | 4 | 8 | | |
| Actuated Green, G (s) | 8.0 | 116.0 | 116.0 | 20.5 | 128.5 | 128.5 | | 12.0 | 12.0 | 12.0 | 12.0 | |
| Effective Green, g (s) | 8.0 | 116.0 | 116.0 | 20.5 | 128.5 | 128.5 | | 12.0 | 12.0 | 12.0 | 12.0 | |
| Actuated g/C Ratio | 0.05 | 0.68 | 0.68 | 0.12 | 0.76 | 0.76 | | 0.07 | 0.07 | 0.07 | 0.07 | |
| Clearance Time (s) | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | | 7.5 | 7.5 | 7.5 | 7.5 | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | |
| Lane Grp Cap (vph) | 83 | 3469 | 1080 | 213 | 3843 | 1196 | | 94 | 111 | 95 | 111 | |
| v/s Ratio Prot | 0.02 | c0.62 | | c0.09 | c0.50 | | | | | | | 0.00 |
| v/s Ratio Perm | | | 0.03 | | | 0.04 | | c0.04 | 0.00 | 0.03 | | |
| v/c Ratio | 0.47 | 0.91 | 0.04 | 0.72 | 0.67 | 0.05 | | 0.55 | 0.05 | 0.39 | 0.01 | |
| Uniform Delay, d1 | 78.9 | 22.6 | 8.8 | 72.0 | 10.2 | 5.3 | | 76.4 | 73.7 | 75.5 | 73.5 | |
| Progression Factor | 1.00 | 1.00 | 1.00 | 0.72 | 3.32 | 4.56 | | 1.00 | 1.00 | 1.00 | 1.00 | |
| Incremental Delay, d2 | 4.2 | 4.6 | 0.1 | 1.1 | 0.1 | 0.0 | | 6.9 | 0.2 | 2.6 | 0.0 | |
| Delay (s) | 83.1 | 27.2 | 8.9 | 52.8 | 34.0 | 24.0 | | 83.3 | 73.8 | 78.1 | 73.5 | |
| Level of Service | F | C | A | D | C | C | | F | E | E | E | |
| Approach Delay (s) | | 27.5 | | | 34.7 | | | 77.7 | | | 76.5 | |
| Approach LOS | | C | | | C | | | E | | | E | |

Intersection Summary

| | | | |
|-----------------------------------|-------|---------------------------|------|
| HCM 2000 Control Delay | 32.2 | HCM 2000 Level of Service | C |
| HCM 2000 Volume to Capacity ratio | 0.86 | | |
| Actuated Cycle Length (s) | 170.0 | Sum of lost time (s) | 21.5 |
| Intersection Capacity Utilization | 91.1% | ICU Level of Service | F |
| Analysis Period (min) | 15 | | |

c Critical Lane Group

Timings

Future Total PM (2026)

1: BallenIsles Dr./Old Palm Dr. & PGA Blvd.

01/21/2022



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT |
|----------------------|------|-------|-------|------|-------|-------|-------|-------|-------|-------|-------|
| Lane Configurations | ↘ | ↑↑↑ | ↗ | ↘ | ↑↑↑ | ↗ | | ↖ | ↗ | ↘ | ↗ |
| Traffic Volume (vph) | 34 | 2487 | 65 | 97 | 2979 | 16 | 67 | 3 | 150 | 35 | 0 |
| Future Volume (vph) | 34 | 2487 | 65 | 97 | 2979 | 16 | 67 | 3 | 150 | 35 | 0 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Perm | NA | Perm | Perm | NA |
| Protected Phases | 1 | 6 | | 5 | 2 | | | 4 | | | 8 |
| Permitted Phases | | | 6 | | | 2 | 4 | | 4 | 8 | |
| Detector Phase | 1 | 6 | 6 | 5 | 2 | 2 | 4 | 4 | 4 | 8 | 8 |
| Switch Phase | | | | | | | | | | | |
| Minimum Initial (s) | 4.0 | 15.0 | 15.0 | 4.0 | 15.0 | 15.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Minimum Split (s) | 11.0 | 40.0 | 40.0 | 11.0 | 35.0 | 35.0 | 47.5 | 47.5 | 47.5 | 46.5 | 46.5 |
| Total Split (s) | 17.0 | 116.0 | 116.0 | 17.0 | 116.0 | 116.0 | 47.0 | 47.0 | 47.0 | 47.0 | 47.0 |
| Total Split (%) | 9.4% | 64.4% | 64.4% | 9.4% | 64.4% | 64.4% | 26.1% | 26.1% | 26.1% | 26.1% | 26.1% |
| Yellow Time (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| All-Red Time (s) | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | | 7.5 | 7.5 | 7.5 | 7.5 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | | | | | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | | | | | |
| Recall Mode | None | C-Max | C-Max | None | C-Max | C-Max | None | None | None | None | None |
| Act Effct Green (s) | 9.2 | 122.9 | 122.9 | 19.7 | 136.0 | 136.0 | | 15.9 | 15.9 | 15.9 | 15.9 |
| Actuated g/C Ratio | 0.05 | 0.68 | 0.68 | 0.11 | 0.76 | 0.76 | | 0.09 | 0.09 | 0.09 | 0.09 |
| v/c Ratio | 0.41 | 0.78 | 0.06 | 0.54 | 0.84 | 0.01 | | 0.67 | 0.72 | 0.33 | 0.22 |
| Control Delay | 95.4 | 22.2 | 2.5 | 60.6 | 46.8 | 0.2 | | 104.9 | 51.5 | 82.6 | 2.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 95.4 | 22.2 | 2.5 | 60.6 | 47.0 | 0.2 | | 104.9 | 51.5 | 82.6 | 2.2 |
| LOS | F | C | A | E | D | A | | F | D | F | A |
| Approach Delay | | 22.7 | | | 47.2 | | | 68.4 | | | 37.7 |
| Approach LOS | | C | | | D | | | E | | | D |

Intersection Summary

Cycle Length: 180
 Actuated Cycle Length: 180
 Offset: 134 (74%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow
 Natural Cycle: 150
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.84
 Intersection Signal Delay: 37.3
 Intersection LOS: D
 Intersection Capacity Utilization 89.3%
 ICU Level of Service E
 Analysis Period (min) 15

Splits and Phases: 1: BallenIsles Dr./Old Palm Dr. & PGA Blvd.

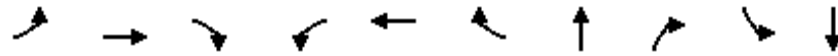


Queues

Future Total PM (2026)

1: BallenIsles Dr./Old Palm Dr. & PGA Blvd.

01/21/2022



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBT | NBR | SBL | SBT |
|-------------------------|------|------|------|------|------|------|-------|------|------|------|
| Lane Group Flow (vph) | 37 | 2703 | 71 | 105 | 3238 | 17 | 76 | 163 | 38 | 48 |
| v/c Ratio | 0.41 | 0.78 | 0.06 | 0.54 | 0.84 | 0.01 | 0.67 | 0.72 | 0.33 | 0.22 |
| Control Delay | 95.4 | 22.2 | 2.5 | 60.6 | 46.8 | 0.2 | 104.9 | 51.5 | 82.6 | 2.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 95.4 | 22.2 | 2.5 | 60.6 | 47.0 | 0.2 | 104.9 | 51.5 | 82.6 | 2.2 |
| Queue Length 50th (ft) | 43 | 743 | 0 | 129 | 964 | 0 | 89 | 80 | 43 | 0 |
| Queue Length 95th (ft) | 87 | 934 | 22 | m64 | m198 | m0 | 147 | 164 | 84 | 0 |
| Internal Link Dist (ft) | | 1128 | | | 1260 | | 383 | | | 307 |
| Turn Bay Length (ft) | 275 | | 110 | 450 | | 280 | | | | |
| Base Capacity (vph) | 104 | 3472 | 1103 | 193 | 3841 | 1212 | 285 | 420 | 289 | 419 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 148 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.36 | 0.78 | 0.06 | 0.54 | 0.88 | 0.01 | 0.27 | 0.39 | 0.13 | 0.11 |

Intersection Summary

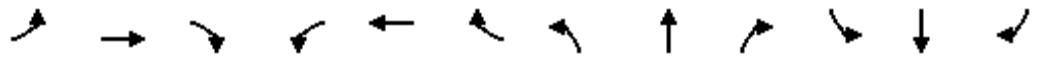
m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis

Future Total PM (2026)

1: Ballensles Dr./Old Palm Dr. & PGA Blvd.

01/21/2022



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------|------|-------|-------|-------|-------|-------|------|-------|------|------|------|------|
| Lane Configurations | ↖ | ↑↑↑ | ↗ | ↖ | ↑↑↑ | ↗ | | ↑ | ↗ | ↖ | ↗ | |
| Traffic Volume (vph) | 34 | 2487 | 65 | 97 | 2979 | 16 | 67 | 3 | 150 | 35 | 0 | 44 |
| Future Volume (vph) | 34 | 2487 | 65 | 97 | 2979 | 16 | 67 | 3 | 150 | 35 | 0 | 44 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | | 7.5 | 7.5 | 7.5 | 7.5 | |
| Lane Util. Factor | 1.00 | 0.91 | 1.00 | 1.00 | 0.91 | 1.00 | | 1.00 | 1.00 | 1.00 | 1.00 | |
| Frt | 1.00 | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 | | 1.00 | 0.85 | 1.00 | 0.85 | |
| Flt Protected | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | | 0.95 | 1.00 | 0.95 | 1.00 | |
| Satd. Flow (prot) | 1770 | 5085 | 1583 | 1770 | 5085 | 1583 | | 1777 | 1583 | 1770 | 1583 | |
| Flt Permitted | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | | 0.70 | 1.00 | 0.71 | 1.00 | |
| Satd. Flow (perm) | 1770 | 5085 | 1583 | 1770 | 5085 | 1583 | | 1303 | 1583 | 1318 | 1583 | |
| Peak-hour factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 37 | 2703 | 71 | 105 | 3238 | 17 | 73 | 3 | 163 | 38 | 0 | 48 |
| RTOR Reduction (vph) | 0 | 0 | 22 | 0 | 0 | 4 | 0 | 0 | 86 | 0 | 44 | 0 |
| Lane Group Flow (vph) | 37 | 2703 | 49 | 105 | 3238 | 13 | 0 | 76 | 77 | 38 | 4 | 0 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Perm | NA | Perm | Perm | NA | |
| Protected Phases | 1 | 6 | | 5 | 2 | | | 4 | | | 8 | |
| Permitted Phases | | | 6 | | | 2 | 4 | | 4 | 8 | | |
| Actuated Green, G (s) | 8.0 | 122.9 | 122.9 | 19.7 | 134.6 | 134.6 | | 15.9 | 15.9 | 15.9 | 15.9 | |
| Effective Green, g (s) | 8.0 | 122.9 | 122.9 | 19.7 | 134.6 | 134.6 | | 15.9 | 15.9 | 15.9 | 15.9 | |
| Actuated g/C Ratio | 0.04 | 0.68 | 0.68 | 0.11 | 0.75 | 0.75 | | 0.09 | 0.09 | 0.09 | 0.09 | |
| Clearance Time (s) | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | | 7.5 | 7.5 | 7.5 | 7.5 | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | |
| Lane Grp Cap (vph) | 78 | 3471 | 1080 | 193 | 3802 | 1183 | | 115 | 139 | 116 | 139 | |
| v/s Ratio Prot | 0.02 | 0.53 | | c0.06 | c0.64 | | | | | | | 0.00 |
| v/s Ratio Perm | | | 0.03 | | | 0.01 | | c0.06 | 0.05 | 0.03 | | |
| v/c Ratio | 0.47 | 0.78 | 0.05 | 0.54 | 0.85 | 0.01 | | 0.66 | 0.56 | 0.33 | 0.03 | |
| Uniform Delay, d1 | 83.9 | 19.3 | 9.3 | 75.9 | 15.8 | 5.8 | | 79.4 | 78.7 | 77.0 | 75.0 | |
| Progression Factor | 1.00 | 1.00 | 1.00 | 0.78 | 2.73 | 1.00 | | 1.00 | 1.00 | 1.00 | 1.00 | |
| Incremental Delay, d2 | 4.5 | 1.8 | 0.1 | 0.3 | 0.2 | 0.0 | | 13.4 | 4.8 | 1.7 | 0.1 | |
| Delay (s) | 88.4 | 21.1 | 9.4 | 59.7 | 43.3 | 5.8 | | 92.8 | 83.4 | 78.7 | 75.1 | |
| Level of Service | F | C | A | E | D | A | | F | F | E | E | |
| Approach Delay (s) | | 21.7 | | | 43.6 | | | 86.4 | | | 76.7 | |
| Approach LOS | | C | | | D | | | F | | | E | |

Intersection Summary

| | | | |
|-----------------------------------|-------|---------------------------|------|
| HCM 2000 Control Delay | 36.1 | HCM 2000 Level of Service | D |
| HCM 2000 Volume to Capacity ratio | 0.83 | | |
| Actuated Cycle Length (s) | 180.0 | Sum of lost time (s) | 21.5 |
| Intersection Capacity Utilization | 89.3% | ICU Level of Service | E |
| Analysis Period (min) | 15 | | |

c Critical Lane Group