



CHARLOTTE COUNTY
COMMUNITY DEVELOPMENT
DEPARTMENT

**PLANNED DEVELOPMENT REZONING
Application Information**

Application Submittal Requirements

- **Supply one unbound copy of the Application Materials (see checklist below).** Staff will have up to 5 working days following the application deadline day to review the application for completeness. If incomplete, the application will be returned with a description of the reasons why the application is incomplete. The applicant may resubmit the application any time prior to the next application deadline day.
- **Once deemed complete, the applicant will be notified that the application has been logged-in. The applicant is then required to supply one electronic copy, in PDF format, of all documents.** Additional copies of certain items will be required prior to the public hearing dates. ***Do not*** submit the additional copies to the Building and Growth Management Department until requested by a staff member of the department.
- **If deemed complete, the application will be logged in and assigned to a P&Z and BCC hearing cycle (see attached Application Schedule).** Staff will commence review.
 - The applicant is responsible for promptly providing any information that needs to be updated, modified, or newly submitted as part of the review; otherwise the petition may be continued to a later cycle or a recommendation of denial will be necessary.
- **No additional changes may be made to any information in an application subsequent to one week before the hearing packet is due to be compiled for the Planning and Zoning Board members or the NOVUS Agenda item deadline for the Board of County Commissioners.** The planner in charge of the petition will be able to inform the applicant of the final date.

Consistency with the Comprehensive Plan

The changes proposed by this application will be reviewed with regard to consistency with the Goals, Objectives, and Policies (GOPs) of the Smart Charlotte 2050 comprehensive plan. Inconsistency with Smart Charlotte will be a basis for a recommendation of denial by Staff.

The review will also be concerned with impacts to infrastructure (i.e. roads, water and sewer facilities, libraries, public buildings, parks, and schools), services (i.e. garbage collection, police protection, and fire/EMS service), the environment (i.e. impact to listed plant and animals species, soil content, erosion, generation of hazardous waste, water quality), and the potential for natural disasters (i.e. hurricanes and flooding).

Application Materials Checklist

- ☒ Completed Application form
- ☒ Survey and accurate legal description (including acreage), signed and sealed by a registered land surveyor
 - For unplatted property, one original boundary survey - *one hard copy and one copy in AutoCAD format*
 - For platted land, one original surveyor's sketch
- ☒ Most current *Title Insurance Policy* or an *Ownership and Encumbrance Report* for subject property
- ☐ Notarized authorization from each owner, as applicable (Form A)
- ☒ Notarized authorization for agent to submit petition, as applicable (Form B)
- N/A ☐ A copy of any covenants, easements or restrictions that have been recorded for the subject site
- ☒ *Environmental Assessment Report*
- ☒ *Traffic Impact Analysis*
 - *Hurricane Evacuation Study*, as applicable
- ☒ Letters of availability of utility service from sanitary sewer and potable water utilities that would provide service to the site and *Estimated Potable Water and Sanitary Sewer Usage Report*
- ☒ *Archeological/Historical Memo* indicating whether or not listed objects are located on the subject site
 - *Archeological/Historical Survey*, as applicable
- ☒ Narrative addressing rezoning standards of approval
- ☒ All information required by Section 15 of the application, 'A' through 'K'
- N/A ☐ Adjacent property owners map and an electronic copy of the adjacent property owners list in text format (txt file) provided on disc.
- ☒ Affidavits A & B, signed and notarized
- ☒ Filing fee of **\$4,540.00**, with check made payable to the Charlotte County Board of County Commissioners, or CCBCC.
- ☐ Filing of **\$2,590.00** for a Major Modification of a PD, with check made payable as noted above.

Additional Copies for Hearing Packet

10 copies each of the following when requested by department staff:

- any bound items
- any maps or other graphics sized larger than 11 X 17 (except surveys)
- any items in color

For Purposes of Public Hearing Presentation

Two views of the concept plan must be submitted to the County in an electronic format designed to fit on a PowerPoint slide; one view based against an off-white background, and one view presented as an overlay on a GIS aerial map of a scale to show adjacent properties. In order to make viewing of the PowerPoint concept plan easier, only the site plan, development standards, north arrow, and scale shall be portrayed. The concept (site) plan should be marked for easy reading:

- areas set aside for water retention should be colored blue
- areas set aside for Open Space should be colored green – dark green for preservation and light green for other areas
- areas set aside for Public Space should be colored brown

ATTENTION

If you are submitting an application that, if approved, will increase the amount of density allowed to be developed on your property, read this notice.

FLU Policy 1.2.7 of Smart Charlotte County outlines those situations wherein the Transfer of Density Units program is applicable.

“The TDU program shall be used during the review and approval process for all plan amendments and rezonings that propose to increase the base density on land and street vacations that would result in an accumulation of acreage allowing development of new units of density; this requirement shall continue to apply to lands that have been annexed by the City of Punta Gorda.”

Property may be exempted from the TDU program if located within a Revitalizing Neighborhood with an adopted Revitalization Plan. The exemption would need to be consistent with policies adopted into Smart Charlotte.

If not exempted, property must meet one of these requirements in order to be an acceptable Receiving Zone:

FLU Policy 1.2.10 TDU Receiving Zones

Receiving zones inside the Urban Service Area include lands within the following designations of FLUM Series Map #2: 2050 Framework:

1. Emerging Neighborhoods.
2. Maturing Neighborhoods.
3. Economic Corridors and Centers.
4. CRAs
5. Revitalizing Neighborhoods prior to adoption of a Revitalization Plan and also what may be required in accordance with a Revitalization Plan.

Receiving Zones within the Rural Service Area include lands within:

1. Rural Community Mixed Use areas.
2. The Rural Settlement Area Overlay District.

AND

Must not be in a prohibited Receiving Zone:

FLU Policy 1.2.11 Prohibited Receiving Zones

Density shall not be transferred into:

1. Lands within Managed Neighborhoods (FLUM Series Map #2).
2. Lands within the Resource Conservation and Preservation FLUM categories.
3. Land containing historical or archeological resources, or land deemed to contain environmentally sensitive resources; when a portion of a property contains resources, that area deemed not to contain resources may receive density if it meets one of the criteria of a receiving zone, a conservation easement will be required over the resource along with an undeveloped buffer of at least 100 feet. An historical structure that is to be integrated into a development will not need to be buffered.
4. Lands within the Prime Aquifer Recharge Area (FLUM Series Map #6).
5. Lands within the one-half mile setback of the Watershed Overlay District and Tippen Bay and Long Island Marsh (FLUM Series Map #4).
6. Land within a Public Water System Wellhead Protection Area (FLUM Series Map #7).
7. Land on a barrier island.



CHARLOTTE COUNTY
 COMMUNITY DEVELOPMENT DEPARTMENT

**APPLICATION for
 PLANNED DEVELOPMENT REZONING**

Date Received:	Time Received:
Date of Log-in:	Petition #: Accela #:
Receipt #:	Amount Paid:

1. PARTIES TO THE APPLICATION

Name of Applicant: JBCC Development, LLC

Mailing Address: 50 Central Avenue, Suite 980

City: Sarasota	State: FL	Zip Code: 34236
Phone Number: 941-916-5247	Fax Number:	
Email Address: triplenetinvestment@gmail.com		

Name of Agent: Robert H. Berntsson

Mailing Address: 3195 S. Access Road

City: Englewood	State: FL	Zip Code: 34224
Phone Number: 941-627-1000 x5	Fax Number:	
Email Address: rberntsson@bigwlaw.com		

Name of Engineer/Surveyor: Exceptional Engineering

Mailing Address: P.O Box 2980

City: Fort Myers	State: FL	Zip Code: 33902
Phone Number: 239-789-8377	Fax Number:	
Email Address: jasonw@exceptionaleng.com		

Name of Property Owner (if more than one property owner, attach a separate sheet with a list of all owners):
 See attached list

Mailing Address:

City:	State:	Zip Code:
Phone Number:	Fax Number:	
Email Address:		

2. PROPERTY INFORMATION

If more than one account number exists, attach a separate sheet listing all information required by this section

Property Account #: 402103126004 and 402103126005		
Section: 3	Township: 40	Range: 21
Parcel/Lot #: 1-3	Block #:	Subdivision:
Total acreage or square feet of the property: 29.39+/- acres		

3. SURVEY:

- For unplatted property, provide one original boundary survey that is **signed and sealed** by a registered land surveyor and an accurate legal description (including acreage) of the property.
- For platted land, provide one original surveyor's sketch that is **signed and sealed** by a registered land surveyor and an accurate legal description (including acreage) of the property.

4. PROOF OF LAND OWNERSHIP: Provide the most current *Title Insurance Policy* or an *Ownership and Encumbrance Report* on the subject property.

5. NOTARIZED AUTHORIZATION:

- If the applicant is not the owner of the property, a written, notarized authorization from each owner must be provided with this application – use Form A, attached. Property owner authorization is required. If the property owner withdraws permission at any point during the review and approval process, the application is considered null and void.
- If an agent is submitting the application for the applicant – authorization from the applicant is required – use Form B, attached.

6. RESTRICTIONS: Provide a copy of any covenants, easements or restrictions that have been recorded for the subject site.

7. EXISTING LAND USE DESIGNATIONS

Future Land Use Map (FLUM) designation(s)	Acreage
US 41 Mixed Use	29.39+/- acres
Zoning District(s)	Acreage
PD	29.39+/- acres

8. APPLICANT'S PROPOSED CHANGE(S):

If the proposed change involves an increase in density, which of the Receiving Zone criteria does the property meet, or would this be an exemption consistent with a Revitalization Plan?
 Economic Corridor, and US 41 overlay allows up to 30 units per acre.

9. REASON FOR PROPOSED CHANGE(S):

To revise layout of commercial uses.

10. CURRENT LAND USE OF SUBJECT PROPERTY (example: house, vacant land, barn, etc.):
Vacant

11. SURROUNDING LAND USES:

North: Hillsborough Blvd., Vacant City of North Port land.

South: Commercial and vacant.

East: Commercial and vacant.

West: Commercial and vacant.

12. ENVIRONMENTAL ASSESSMENT: Waived by Zoning Official

- Provide an *Environmental Assessment Report*, conducted within one year or less from the date of submittal, that includes:
 - Maps and surveys of the subject site illustrating the existing land cover according to Level 3 of the FLUCCS
 - Locations of listed flora and fauna species, if present.
 - If any wetlands are identified on site, provide a survey showing delineations of any wetlands, acreages, and the wetland Category (ENV Policy 3.1.3) under which they fall.
 - If the property is adjacent to any Federal, State, or County wildlife management areas, parks, preserves or reserves, supply a science-based analysis of possible impacts to the environmental resources of these lands and the manner in which these impacts can be eliminated. Where elimination is not possible, the analysis shall detail how these impacts can be reduced and mitigated.

13. INFRASTRUCTURE:

A. Roadway

- i. List the roads or streets upon which vehicles may travel to gain access to the site (generally within ¼ mile radius):
US 41, Hillsborough Blvd. and Cranberry Blvd.

- ii. *Traffic Impact Analysis*: This study must be authored by a registered professional engineer in the State of Florida. Provide a study showing the impacts development of the subject site would have on the surrounding roadway network. Where traffic impacts reduce LOS below ‘D’ provide a proportionate fair share assessment for impacted roadways.
- *Hurricane Evacuation Study*: For any property that is even partially located in a Coastal High Hazard Area, or which generates trips wherein the majority of those trips would utilize a roadway that runs through a Coastal High Hazard Area, a *Hurricane Evacuation Study* must

accompany any *Traffic Impact Analysis*.

B. Potable Water and Sanitary Sewer

- i. Submit a letter from any water or sewer utilities that will be serving the subject site stating availability of utility service to the property.
- ii. Attach an *Estimated Potable Water and Sanitary Sewer Usage Report*: provide a report showing the gallons per day that may be generated by development of the subject site at the maximum buildout

14. HISTORICAL OR ARCHEOLOGICAL SITES: When the property under review is within the area determined to contain potential historic and archeological resources by the Archaeological Predictive Model (depicted on SPAM Series Map #3), the applicant must submit an *Archeological/Historical Memo* indicating that a review of the National Register of Historic Places, the Florida Master Site File and the Local Historic Register (when available) has been performed and the results of that review. If the subject site contains any object listed in these resources, the applicant must provide an *Archeological/Historical Survey* performed by a professional archeologist licensed in the State of Florida.

15. REZONING NARRATIVE

Charlotte County Code Section 3-9-11(e) lists the following standards for approval. A narrative stating the applicant's justification for the rezoning based upon the following standards of approval is required:

- A. Whether the proposed change would be contrary to the Comprehensive Plan.
- B. The existing land use pattern in adjacent areas.
- C. The capacity of public facilities and services, including but not limited to schools, roads, recreational facilities, wastewater treatment, water supply, and stormwater drainage facilities.
- D. Whether the proposed change will adversely influence living conditions or property values in adjacent areas.
- E. Whether the proposed change will affect public safety.

16. CONCEPT PLAN and DEVELOPMENT INFORMATION: Submit the following information regarding the proposed project.

(All maps must contain title of the project, landowner of record, names of the representatives of the landowner of record, scale, date, and north arrow)

- A. Include a *General Location Map*.
- B. Include *Existing Features Map(s)* showing all streets, curb cuts, buildings, watercourses, easements, other important physical features, zoning designations and future land use map designations in the property and on adjacent lands.
- C. Include a *Concept Design Map* showing locations of structures, acreage, density, and intensity for each proposed land use; show points of access and traffic flow and road improvements; show buffers, landscaped areas, and open space.
- D. Supply tabulations of total gross acreage in the proposed development, the percentage of total acreage to be devoted to each proposed use, height, and intensity of use identified through Floor Area Ratio calculations and/or projected number of housing units proposed by dwelling type.
- E. Supply a phasing plan or general schedule of the development.
- F. Supply standards for height, open space, building density, and parking area.
- G. Include a narrative in which you cite specifically how this project meets the intent and goals of the Planned Development Zoning District, including any "community enhancements".

- H. Show the general façade and overall architectural design scheme; explain building orientation, if applicable.
- I. Describe any Green Building or Low Impact Development (LID) design techniques that will be used.
- J. Supply a copy of any draft deed restrictions, protective covenants, and other statements or devices which will be used to control the use, development and maintenance of the land and improvements thereon, including those areas which are to be commonly owned and maintained.
- K. Supply any additional information identified at the preapplication conference, at concept approval, or requested by the Zoning Official or Building and Growth Management Director prior to submittal of the rezoning application.

18. ADJACENT PROPERTY OWNERS INFORMATION:

Provide an *electronic text file (.txt)* that includes the names and addresses of all property owners within 200 feet of the subject property (excluding street right-of-ways), and a map indicating which properties are included in the address list. The Adjacent Property Owner List must be based upon the latest available property records of the Property Appraiser's Office. The list shall include property owner's name, mailing address, and parcel(s) or lot(s) description or account number so each parcel can be referenced on the Adjacent Property Owner Map. Refer to the Geographic Information System Internet site for mapping and owner information at <http://www.ccgis.com/>. (Use a buffer of 250 feet or larger in order to account for right-of-ways, canals, etc.) Every property owner within 200 feet of every parcel of land involved will be notified of the schedule of public hearings

FORM A. PROPERTY OWNER AUTHORIZATION TO APPLICANT

I, the undersigned, being first duly sworn, depose and say that I am the owner of the property described and which is the subject matter of the proposed hearing.

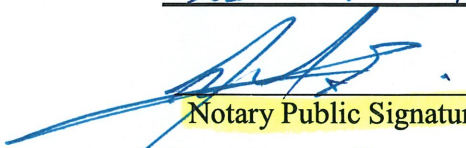
I give authorization for JBCC Development, LLC to be the applicant for this REZONING.

STATE OF Florida, COUNTY OF Miami Dade

The foregoing instrument was acknowledged before me this 08 day of July, 2022, by

William Bruce, Jr Fuccillo who is personally known to me or has/have produced

DL# F 240 922 89 381 - 0 as identification and who did/did not take an oath.


Notary Public Signature


Signature of Owner

Alessandro Portes de Oliveira
Notary Printed Signature

WBK Florida Properties III, LLC
By William B Fuccillo, Jr. Manager
Printed Signature of Owner

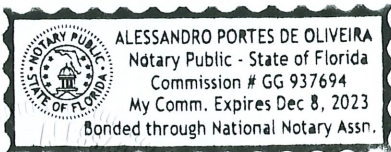
Title

Address

Commission Code

City, State, Zip

Telephone Number



FORM B. APPLICANT AUTHORIZATION TO AGENT

I, the undersigned, being first duly sworn, depose and say that I am the applicant for the REZONING of the property described and which is the subject matter of the proposed hearing.

I give authorization for Robert H. Berntsson to be my agent for this application.

STATE OF Florida, COUNTY OF Sarasota

The foregoing instrument was acknowledged before me this 28 day of June, 2022, by

Clinton P. Conway who is personally known to me or has/have produced
as identification and who did/did not take an oath.

Amanda R. Ortiz
Notary Public Signature

Clinton P. Conway
Signature of Applicant

Amanda R. Ortiz
Notary Printed Signature

Clinton P. Conway
Printed Signature of Applicant

Title

Address

50 Central Ave Suite 980

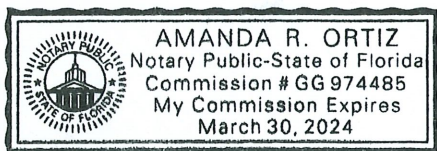
Commission Code

City, State, Zip

Sarasota, FL 34236

Telephone Number

941-916-5247



AFFIDAVIT B

The applicant/owner hereby acknowledges and agrees that any staff discussion about conditions of approval are preliminary only, and are not final, nor are they the specific conditions or demands required to gain approval of the application, unless the conditions or demands are actually included in writing in the final development order or the final denial determination or order.

STATE OF Florida, COUNTY OF Charlotte

The foregoing instrument was acknowledged before me this 12 day of July, 2022, by

Robert H. Berntsson who is personally known to me or has/have produced
_____ as identification and who did/did not take an oath.

Margaret Casole
Notary Public Signature

Robert H. Berntsson
Signature of Applicant or Agent
Robert H. Berntsson

Notary Printed Signature

Printed Signature of Applicant or Agent

3195 S. Access Road

Title

Address

Englewood, FL 34224

Commission Code

City, State, Zip

941-627-1000 x5

Telephone Number



PROPERTY INFORMATION REPORT

Certified to: REAL ESTATE SERVICES

ORDER DATE:

July 8, 2022

SEARCH DATE: 30 years up to June 16, 2022

LEGAL DESCRIPTION

PARCEL I.D. NO.: 402103126004

A PORTION OF SECTION 3, TOWNSHIP 40 SOUTH, RANGE 21 EAST, CHARLOTTE COUNTY, FLORIDA, BEING FURTHER DESCRIBED AS FOLLOWS:

BEGINNING AT THE INTERSECTION OF THE EAST RIGHT-OF-WAY LINE OF CRANBERRY BOULEVARD (100' WIDE) AS SHOWN ON THE PLAT OF PORT CHARLOTTE SUBDIVISION SECTION 68, RECORDED IN PLAT BOOK 6, PAGE 6 OF THE PUBLIC RECORDS OF CHARLOTTE COUNTY, FLORIDA AND THE NORTH RIGHT-OF-WAY OF U.S. HIGHWAY NO. 41 (STATE ROAD NO. 45) TAMiami TRAIL AS DEPICTED ON FLORIDA DEPARTMENT OF TRANSPORTATION RIGHT-OF-WAY MAP SECTION 01010-2510 SAID POINT HAVING A STATE PLANE COORDINATE VALUE OF NORTHING 980962.4591 FEET AND EASTING 589862.3591 FEET; THENCE SOUTH 51°51'48" EAST ALONG THE NORTH RIGHT-OF-WAY LINE OF SAID U.S. HIGHWAY NO. 41, A DISTANCE OF 1354.52 FEET; THENCE NORTH 38°08'12" EAST, A DISTANCE OF 338.00 FEET; THENCE SOUTH 51°51'48" EAST, A DISTANCE OF 387.00 FEET; THENCE SOUTH 38°08'12" WEST, A DISTANCE OF 338.00 FEET TO THE NORTH RIGHT-OF-WAY OF U.S. HIGHWAY NO. 41; THENCE SOUTH 51°51'48" EAST ALONG SAID RIGHT-OF-WAY, A DISTANCE OF 60.00 FEET; THENCE NORTH 38°08'12" EAST, A DISTANCE OF 398.21 FEET TO THE BEGINNING OF A CIRCULAR CURVE TO THE LEFT HAVING AS ELEMENTS A RADIUS OF 630.00 FEET, A CENTRAL ANGLE OF 38°04'42", A CHORD LENGTH OF 411.03 FEET, AND A CHORD BEARING OF NORTH 19°05'51" EAST; THENCE ALONG THE ARC OF SAID CURVE, A DISTANCE OF 418.69 FEET TO THE END OF SAID CURVE; THENCE NORTH 00°20'46" EAST, A DISTANCE OF 571.41 FEET TO THE SOUTH RIGHT-OF-WAY LINE OF HILLSBOROUGH BOULEVARD AS DEDICATED IN OFFICIAL RECORDS BOOK 1254, PAGE 61, OF THE PUBLIC RECORDS OF CHARLOTTE COUNTY, FLORIDA; THENCE NORTH 89°56'30" WEST ALONG SAID RIGHT-OF-WAY, A DISTANCE OF 1010.63 FEET TO THE POINT OF CURVATURE OF A CIRCULAR CURVE TO THE RIGHT HAVING AS ELEMENTS A RADIUS OF 1640.00 FEET, A CENTRAL ANGLE OF 12°40'49", A CHORD LENGTH OF 362.22 FEET, AND A CHORD BEARING OF NORTH 83°36'05" WEST; THENCE ALONG THE ARC OF SAID CURVE AND SAID RIGHT-OF-WAY LINE, A DISTANCE OF 362.96 FEET, TO THE END OF SAID CURVE AND THE INTERSECTION WITH THE NORTH LINE OF SECTION 3, TOWNSHIP 40 SOUTH, RANGE 21 EAST; THENCE NORTH 89°56'30" WEST ALONG THE NORTH LINE OF SAID SECTION 3, A DISTANCE OF 273.91 FEET TO A POINT ON THE EAST RIGHT-OF-WAY OF CRANBERRY BOULEVARD, SAID POINT BEING A POINT ON A CURVE TO THE RIGHT AS ELEMENTS A RADIUS OF 550.00 FEET, A CENTRAL ANGLE OF 04°46'58", A CHORD LENGTH OF 45.90 FEET, AND A CHORD BEARING OF SOUTH 35°44'43" WEST; THENCE ALONG THE ARC OF SAID CURVE AND SAID RIGHT-OF-WAY LINE, A DISTANCE OF 45.91 FEET TO THE POINT OF TANGENCY; THENCE SOUTH 38°08'12" WEST ALONG SAID RIGHT-OF-WAY, A DISTANCE OF 209.69 FEET TO THE POINT OF BEGINNING.

APPARENT TITLE HOLDER & ADDRESS OF RECORD:

WBF FLORIDA PROPERTIES III, LLC, a Florida limited liability company

ADDRESS: 10524 US RT 11 ADAMS, NY 13605

This is to certify that the legal description and the above information is correct as required under Chapter 197 Florida Statutes. This report is not title insurance. Pursuant to s. 627.7843, Florida Statutes, the maximum liability of the issuer of this property information report for errors or omissions in this property information report is limited to the amount paid for this property information report, and is further limited to the person(s) expressly identified by name in the property information report as the recipient(s) of the property information report.

WIDEIKIS, BENEDICT & BERNTSSON LLC

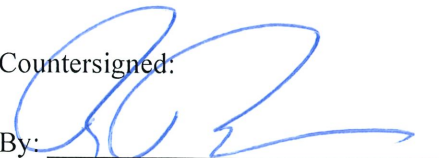
3195 S. ACCESS ROAD

ENGLEWOOD, FLORIDA 34224

Phone: 941-627-1000 Fax 941-255-0684

THE BIG W LAW FIRM

Countersigned:

By: 

Robert H. Berntsson

Date: July 8, 2022

PROPERTY INFORMATION REPORT

Certified to: Charlotte County

ORDER DATE: April 19, 2024

SEARCH DATE: **30 years up to June 1st, 2023**

LEGAL DESCRIPTION : See Exhibit "A"

PARCEL I.D. NO.: 402103126005, 402103126004

APPARENT TITLE HOLDER & ADDRESS OF RECORD:

CHARLOTTE HARBOR RESIDENCES LLC, A DELAWARE LIMITED LIABILITY COMPANY (AS TO PARCEL 1), and, as disclosed in the Public Records, since January 29, 2024; AND JBCC CRANBERRY & 41, LLC, A FLORIDA LIMITED LIABILITY COMPANY (AS TO PARCEL 2)

AND SAID PROPERTY IS SUBJECT TO THE FOLLOWING ENCUMBRANCES, IF ANY:

1. Mortgage, Assignment of Leases and Security Agreement, dated January 25, 2024, given by Charlotte Harbor Residences, LLC, a Delaware limited liability company, in favor of Pinnacle Bank, a Tennessee bank, to secure the original principal amount of \$52,552,000.00, as recorded on January 29, 2024, in Official Records Instrument No. 2024-3363272, of the Public Records of Charlotte County, Florida; (as to Parcel 1) and
 - a. UCC-1 Financing Statement in favor of Pinnacle Bank, as recorded on January 29, 2024, in Official Records Instrument No. 2024-3363274, of the Public Records of Charlotte County, Florida. (as to Parcel 1).
2. UCC-1 Financing Statement in favor of Pinnacle Bank, as recorded on February 6, 2024, in Official Records Instrument No. 2024-3366359, of the Public Records of Charlotte County, Florida.
3. Notice of commencement recorded on January 31, 2024 in Official Records Instrument Number 2024-3364538.
4. Mortgage, Assignment of Rents and Leases, Security Agreement and Fixture Filing, dated February 27, 2024, given by JBCC Cranberry & 41 LLC, a Florida limited liability company, in favor of First Horizon Bank, a Tennessee banking corporation to secure the original principal amount of \$3,600,000.00, as recorded on February 28, 2024, in Official Records Instrument No. 2024-3374479, in the Public Records of Charlotte County, Florida. (as to Parcel 2);
 - a. -1 Financing Statement in favor of First Horizon Bank, as recorded on February 28, 2024, in Official Records Instrument No. 2024-3374480, of the Public Records of Charlotte County, Florida. (as to Parcel 2)
5. Notice of commencement recorded on March 5, 2024 in Official Records Instrument Number 2024-3377317.
6. Right of Way Agreement recorded in Deed Book 27, Page 280, of the Public Records of Charlotte County, Florida.
7. Ordinance No. 89-72, recorded in Official Records Book 1069, Page 2017, of the Public Records of Charlotte County, Florida.
8. Resolution No. 92-279, recorded in Official Records Book 1254, Page 61, of the Public Records of Charlotte County, Florida.
9. Resolution No. 2014-122, recorded in Official Records Book 3876, Page 1266, of the Public Records of Charlotte County, Florida.
10. Perpetual Easement to State of Florida, Department of Transportation, as contained in Order of Taking recorded in Official Records Book 3991, Page 1902, of the Public Records of Charlotte County, Florida.
11. Easement to Florida Power & Light Company, recorded in Official Records Book 3991, Page 1953, of the Public Records of Charlotte County, Florida.
12. Charlotte County Utility Agreement recorded in Official Records Book 4020, Page 561, of the Public Records of Charlotte County, Florida.

- 13.Easement for Water and/or Wastewater Utilities, recorded in Official Records Book 4103, Page 437, of the Public Records of Charlotte County, Florida.
- 14.Ordinance No. 2019-011, recorded in Official Records Book 4430, Page 512, of the Public Records of Charlotte County, Florida.
- 15.Restrictive Covenant recorded in Official Records Book 4434, Page 949, of the Public Records of Charlotte County, Florida.
- 16.Cross Access, Utilities and Drainage Easement and Signage Agreement recorded in Official Records Book 4434, Page 960, of the Public Records of Charlotte County, Florida.
- 17.Declaration of Cross Access, Utilities, Drainage and Signage Easements and Covenants Agreement recorded in Official Records Book 4721, Page 2127, of the Public Records of Charlotte County, Florida.
- 18.Terms and conditions of the Ordinance Number 2023-008, by the Board of County Commissioners for Charlotte County, Florida, amending the Charlotte County Flum Series Map #1, as recorded on March 1, 2023, in Official Records Instrument No. 2023-3227888, of the Public Records of Charlotte County, Florida.
- 19.Terms and conditions of the Ordinance Number 2023-009, by the Board of County Commissioners for Charlotte County, Florida, amending the Charlotte County Zoning Atlas, as recorded on March 1, 2023, in Official Records Instrument No. 2023-3227889, of the Public Records of Charlotte County, Florida
- 20.Terms and conditions of the Resolution Number 2024-014, by the Board of County Commissioners of Charlotte County, Florida, for Site Plan Approval for Livano Charlotte Harbor, recorded on January 24, 2024, in Official Records Instrument No. 2024-3362003, of the Public Records of Charlotte County, Florida.
- 21.Terms and conditions of the Resolution Number 2023-138, by the Board of County Commissioners of Charlotte County, Florida, for transfer of 340 Density Credits, recorded on August 2, 2023, in Official Records Instrument No. 2023-3287574, of the Public Records of Charlotte County, Florida.
- 22.Declaration of Covenants, Restrictions and Easements Agreement for Cranberry Commons, dated January 25, 2024, by JBCC Cranberry & 41 LLC, a Florida limited liability company, as recorded on January 26, 2024, in Official Records Instrument No. 2024-3362978, of the Public Records of Charlotte County, Florida; Restrictions, covenants, conditions and easements, which include provisions for A. an easement on the land, B. a lien for liquidated damages, and C. a private charge or assessments
- 23.Assignment and Assumption of TDU Credits, dated January 25, 2024, by and between JBCC Cranberry & 41, LLC, a Florida limited liability company, in favor of Charlotte Harbor Residences LLC, a Delaware limited liability company, as recorded on January 29, 2024, in Official Records Instrument No. 2024-3363271, of the Public Records of Charlotte County, Florida.

This is to certify that the legal description and the above information is correct as required under Chapter 197 Florida Statutes. This report is not title insurance. Pursuant to s. [627.7843](#), Florida Statutes, the maximum liability of the issuer of this property information report for errors or omissions in this property information report is limited to the amount paid for this property information report, and is further limited to the person(s) expressly identified by name in the property information report as the recipient(s) of the property information report.

WIDEIKIS, BENEDICT & BERNTSSON LLC
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Countersigned:

By: *Robert H. Berntsson*

Date: April 19, 2024

Robert H. Berntsson



*Updated Traffic Impact Study
For Submittal to FDOT*

Cranberry Commons
Charlotte County, Florida

Section 01010000
Milepost 25.513 to 25.859

Prepared by:

Kimley-Horn and Associates, Inc.
Tampa, Florida

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Updated March 2025

*Updated Traffic Impact Study
For Submittal to FDOT*

Cranberry Commons
Charlotte County, Florida

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Updated March 2025

Christopher Hatton, P.E.	Date
PE Number: 48905	

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INTRODUCTION

Based upon the Pre-Application Meeting held with the Florida Department of Transportation (FDOT), Charlotte County, and the City of North Port on February 15, 2022, the latest comments from FDOT dated October 16, 2024, and subsequent discussions with FDOT, Charlotte County, and City of North Port on November 13, 2024, and January 31, 2025, this updated Traffic Impact Study (TIS) has been updated and is provided for the proposed Cranberry Commons development located at the northeast quadrant of US 41 & South Cranberry Boulevard in Charlotte County, Florida. US 41 is an access class 3 roadway with a context classification of C3C-Suburban Commercial and a posted speed limit of 45 mph and 50 mph in the vicinity of the project. The general site location map is provided in Figure 1. The project has been under construction since 2024 and buildout is expected in 2026. The existing site is proposed to be a mixed-use site to consist of up to the following development:

- 340 multi-family housing mid-rise units
- 7,762 square feet of restaurant
- 5,433 square feet of fast-food restaurant with drive-through
- 5,231 square feet (1 tunnel) of car wash
- 10,000 square feet of retail

As shown in the conceptual site plan in Appendix A, access to the site is provided through the following access connections:

- Project Driveway 1: Proposed right-in/right-out only connection along US 41
- Project Driveway 2: Proposed full-access connection along Hillsborough Boulevard
- Project Driveway 3: Proposed egress-only connection along Huge Boulevard (Northern)
- Project Driveway 4: Existing full-access connection along Huge Boulevard (Southern)

This report identifies the estimated trip generation potential of the proposed mixed-use development and analyzes the anticipated traffic impacts on the study area intersections and proposed project driveway along US 41.



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Study Area Map

**CRANBERRY COMMONS
CHARLOTTE COUNTY, FLORIDA**

Project No: 147000004

Scale: As Noted

March 2025

Figure 1

In general, the following procedural steps were undertaken in this updated Traffic Impact Study (TIS):

- A pre-application meeting was held with the FDOT, Charlotte County, and the City of North Port on February 15, 2022;
- Traffic volumes anticipated to be generated by the proposed development were estimated using the Institute of Transportation Engineers' (ITE) *Trip Generation Manual*, 11th Edition;
- Project traffic was distributed and assigned to the public roadway network based upon the distribution reflected from the results of a select zone analysis using the Florida Standard Urban Transportation Modeling Structure (FSUTMS) District One Regional Planning Model (D1RPM);
- Existing a.m. and p.m. peak-hour traffic volumes in the study area were collected in 2025 and adjusted to reflect peak season volumes using the Florida Department of Transportation's peak season conversion factor (PSCF), and were used as part of future background volumes;
- Background (non-project) traffic volumes consist of existing traffic grown by 2.0%;
- Intersection analyses within the study area for existing and future scenarios were completed using *Synchro version 11*; and
- Turn lane warrant thresholds were reviewed to determine the need for an exclusive turn lane at the proposed right-in/right-out only project driveway along US 41.
- A meeting was held on November 13, 2024 with FDOT staff.
- A meeting was held on January 31, 2025, with Charlotte County, City of North Port, and FDOT.

PROJECT TRAFFIC

Project traffic used in this analysis is defined as the vehicle trips expected to be generated by the proposed mixed-use development. These trips were distributed and assigned throughout the study area roadway network.

Proposed Land Use

The project site is located in the northeast quadrant of US 41 & South Cranberry Boulevard in Charlotte County, Florida. The project has been under construction since 2024. It is anticipated to be built-out by 2026 and is proposed to consist of up to the following development:

- 340 multi-family housing mid-rise units
- 7,762 square feet of restaurant
- 5,433 square feet of fast-food restaurant with drive-through
- 5,231 square feet (1 tunnel) of car wash
- 10,000 square feet of retail

As shown in the conceptual site plan in Appendix A, access to the site is provided through the following access connections:

- Project Driveway 1: Proposed right-in/right-out only connection along US 41
- Project Driveway 2: Proposed full-access connection along Hillsborough Boulevard
- Project Driveway 3: Proposed egress-only connection along Huge Boulevard (Northern)
- Project Driveway 4: Existing full-access connection along Huge Boulevard (Southern)

Trip Generation

Trip generation for the proposed mixed-use development was based on the Institute of Transportation Engineer's (ITE) *Trip Generation Manual*, 11th Edition, for the following land use codes (LUC):

- LUC 221 (Multi-Family Housing (Mid-Rise) units)
- LUC 822 (Strip Retail Plaza (<40k))
- LUC 932 (High-Turnover (Sit-Down) Restaurant)
- LUC 934 (Fast-Food Restaurant with Drive-Through Window)
- LUC 948 (Automated Car Wash)

Pass-by and Internal capture rates based upon the methodologies outlined in the *ITE's Trip Generation Handbook*, 3rd edition, were utilized based upon the retail and mixed-use nature of the site. As identified in Table 1 and Table 2, the proposed mixed-use development is anticipated to generate 390 net, new a.m. peak-hour trips (166 entering/224 exiting) and 288 net, new p.m. peak-hour trips (170 entering/118 exiting). Daily trip generation and internal capture worksheets are provided in Appendix A.

Trip Distribution and Assignment

Project traffic attributed to the development was distributed to the adjacent roadway network from the project site. Trip distribution and assignment was based upon the results of a select zone analysis using the FSUTMS District One Regional Planning Model (D1RPM). Project trips were manually assigned at the proposed project driveways. The FSUTMS model output is provided in Appendix B.

The net-new and pass-by project distribution are shown in Figure 2 and Figure 3, respectively. The a.m. and p.m. peak-hour project trips are shown in Figure 4.

Table 1: A.M. Peak-Hour Trip Generation

ITE TRIP GENERATION CHARACTERISTICS					DIRECTIONAL DISTRIBUTION		GROSS TRIPS			INTERNAL CAPTURE		TOTAL EXTERNAL TRIPS			PASS-BY CAPTURE		NET NEW EXTERNAL TRIPS		
Land Use	ITE Edition	ITE Code	Scale	ITE Units	Percent		In	Out	Total	Percent	IC Trips	In	Out	Total	Percent	PB Trips	In	Out	Total
					In	Out													
Multifamily Housing Mid-Rise	11	221	340	DU	23%	77%	32	106	138	18.1%	24	20	94	114	0.0%	0	20	94	114
Strip Retail Plaza (<40k)	11	822	10	KSF	60%	40%	14	10	24	16.7%	4	12	8	20	0.0%	0	12	8	20
High-Turnover (Sit-Down) Restaurant	11	932	7.762	KSF	55%	45%	41	33	74	7.9%	6	38	30	68	0.0%	0	38	30	68
Fast-Food Restaurant with Drive-Through Window	11	934	5.433	KSF	51%	49%	123	119	242	7.9%	20	113	109	222	50.0%	112	57	53	110
Automated Car Wash	11	948	1	TUNNEL	50%	50%	39	39	78	0.0%	0	39	39	78	0.0%	0	39	39	78
Total:							249	307	556	-	54	222	280	502	-	112	166	224	390

Table 2: P.M. Peak-Hour Trip Generation

ITE TRIP GENERATION CHARACTERISTICS					DIRECTIONAL DISTRIBUTION		GROSS TRIPS			INTERNAL CAPTURE		TOTAL EXTERNAL TRIPS			PASS-BY CAPTURE		NET NEW EXTERNAL TRIPS		
Land Use	ITE Edition	ITE Code	Scale	ITE Units	Percent		In	Out	Total	Percent	IC Trips	In	Out	Total	Percent	PB Trips	In	Out	Total
					In	Out													
Multifamily Housing Mid-Rise	11	221	340	DU	61%	39%	81	52	133	27.1%	36	63	34	97	0.0%	0	63	34	97
Strip Retail Plaza (<40k)	11	822	10	KSF	50%	50%	33	33	66	59.1%	40	13	13	26	40.0%	10	8	8	16
High-Turnover (Sit-Down) Restaurant	11	932	7.762	KSF	61%	39%	43	27	70	20.5%	14	36	20	56	43.0%	24	24	8	32
Fast-Food Restaurant with Drive-Through Window	11	934	5.433	KSF	52%	48%	93	86	179	20.5%	36	75	68	143	55.0%	78	36	29	65
Automated Car Wash	11	948	1	TUNNEL	50%	50%	39	39	78	0.0%	0	39	39	78	0.0%	0	39	39	78
Total:							289	237	526	-	126	226	174	400	-	112	170	118	288



NOT TO SCALE

Legend

- Study Roadway
- Project Access
- Study Intersection
- XX% Entering Distribution
- (XX%) Exiting Distribution

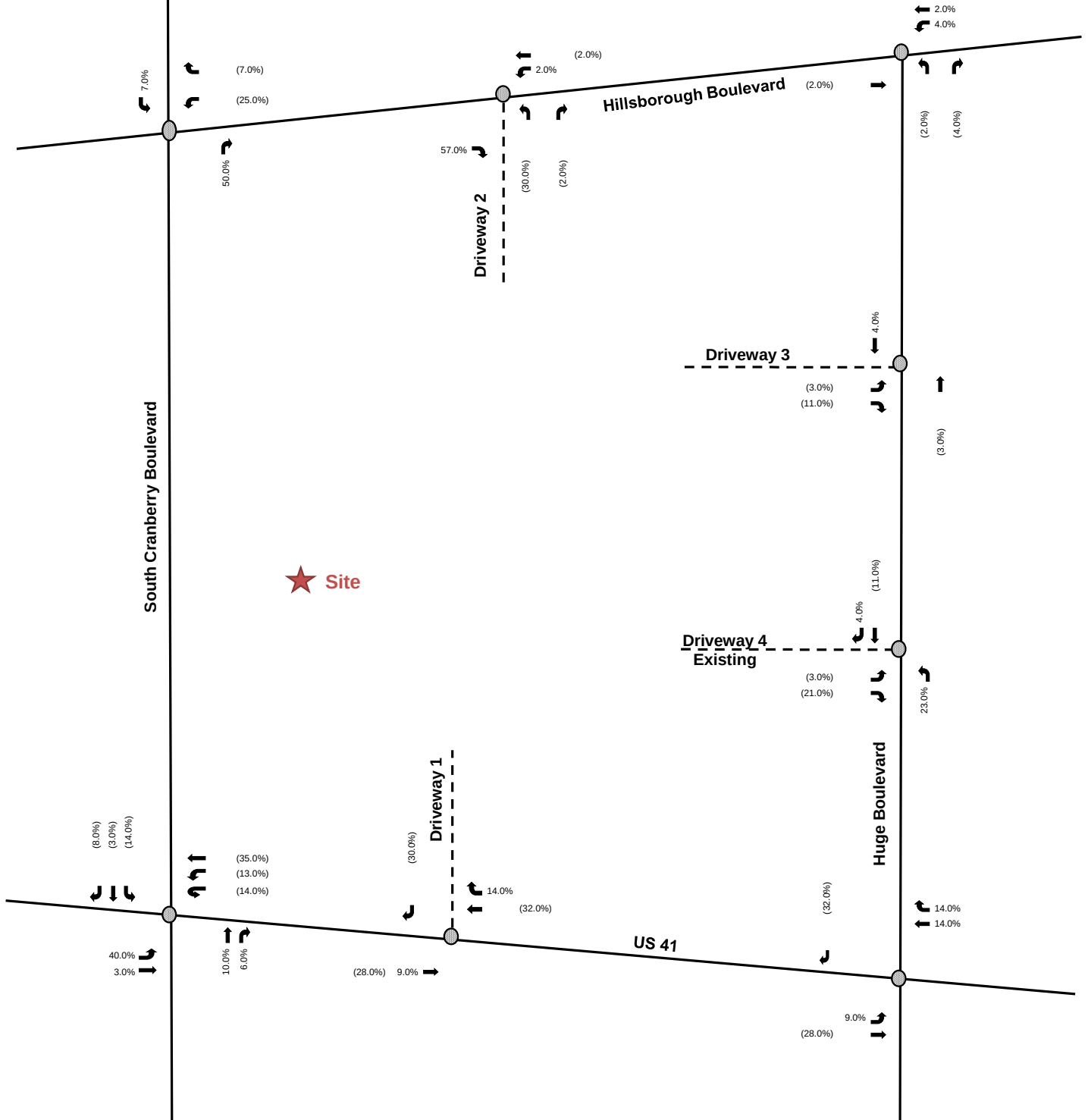


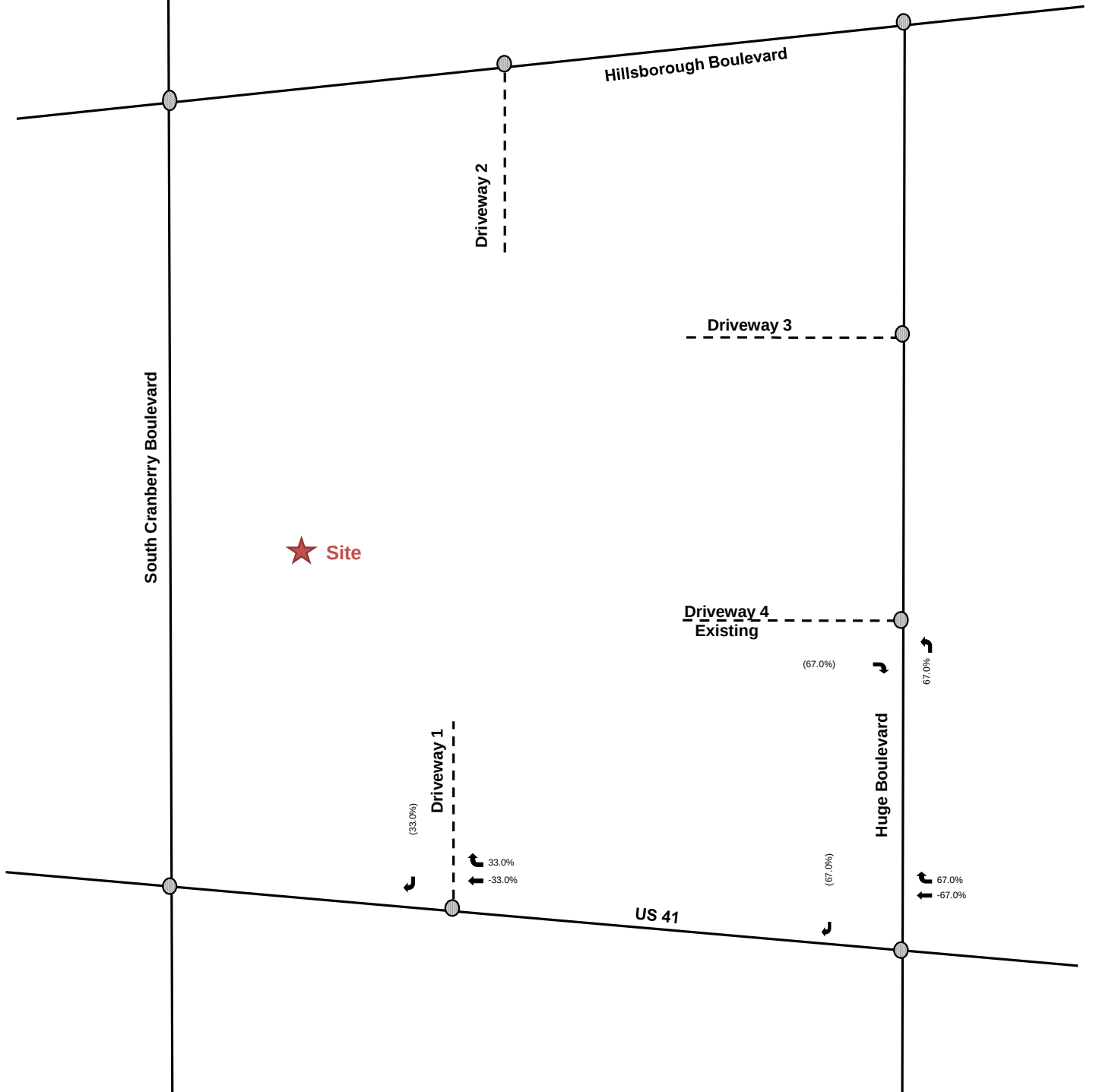
Figure 2
Net New Project Trip Distribution
Cranberry Commons
Charlotte County, Florida



NOT TO SCALE

Legend

- Study Roadway
- - - Project Access
- Study Intersection
- XX% Entering Distribution
- (XX%) Exiting Distribution



- Legend**
- Study Roadway
 - Project Access
 - Study Intersection
 - XX A.M. Peak-Hour Project Trips
 - (XX) P.M. Peak-Hour Project Trips

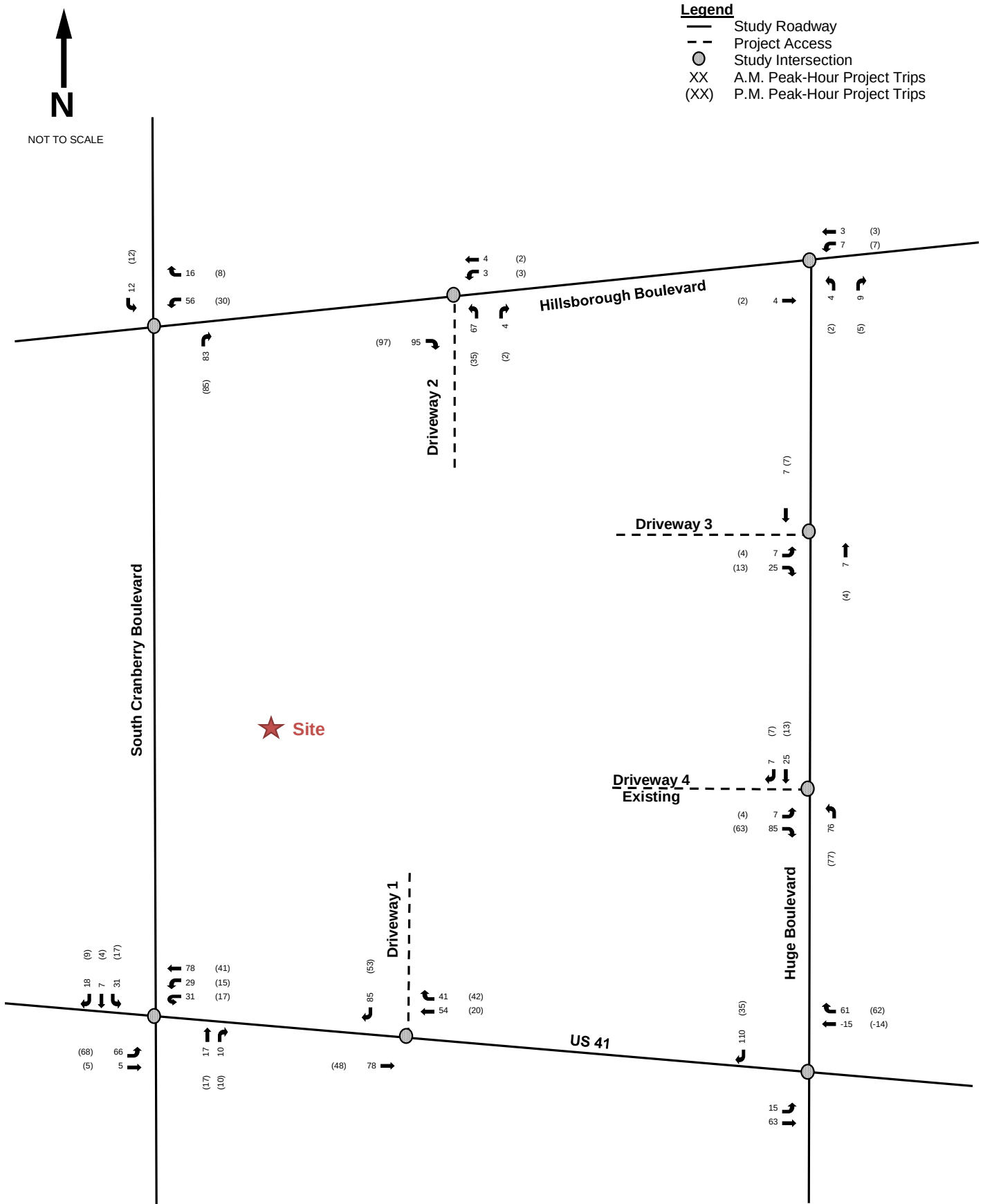


Figure 4
A.M. and P.M. Peak-Hour Project Traffic
Cranberry Commons
Charlotte County, Florida

STUDY AREA DETERMINATION

Based upon the Pre-Application Meeting held on February 15, 2022 with the FDOT, Charlotte County, and City of North Port staff, and the latest comments from FDOT dated October 16, 2024, the following study area intersections were included in the analysis:

- US 41 & S. Cranberry Boulevard
- US 41 & Huge Boulevard
- Hillsborough Boulevard & S. Cranberry Boulevard
- US 41 & Project Driveway 1

The study area intersections were analyzed for a volume-to-capacity ratio (v/c) of less than one (1.0) for each lane approach during the a.m. and p.m. peak hours for existing, background, and total buildout conditions. Based on FDOT comments from October 16, 2024, delay values have also been included. For the purposes of this study, at the two (2) US 41 intersections, northbound and southbound approaches are along US 41 and eastbound and westbound approaches are along side streets. At the S. Cranberry Boulevard & Hillsborough Boulevard intersection, northbound and southbound approaches are along S. Cranberry Boulevard and eastbound and westbound approaches are along Hillsborough Boulevard.

Additionally, Project Driveway 1 (right-in/right-out only connection along US 41) was reviewed for exclusive turn lane warrant thresholds.

EXISTING TRAFFIC CONDITIONS

Existing traffic conditions were evaluated within the study network. The procedures used in this analysis are detailed below.

Updated vehicle turning movement volume counts were collected at the study area intersections on February 19, 2025 during the a.m. peak period (7:00 a.m. to 9:00 a.m.) and p.m. peak period (4:00 p.m. to 6:00 p.m.) to quantify existing conditions. Although the peak season conversion factor (PSCF) for the week of the counts was 0.97, a PSCF of 1.0 was used to provide a conservative analysis. The raw turning movement counts and peak season factors are provided in Appendix C. The a.m. and p.m. peak-hour peak season existing traffic volumes are illustrated in Figure 5.

Existing Conditions Intersection Analysis

Using the peak-hour peak season existing traffic volumes identified in Figure 5, an intersection analysis was conducted for the study area intersections. The intersection analysis was performed using *Synchro* version 12. As a part of this analysis, existing lane geometry and traffic controls were used in the evaluation of the study area intersection.

The results of the existing conditions intersection analysis are summarized in Table 3 and Table 4 and indicate that the study area intersections currently operate acceptably with a volume-to-capacity (v/c) ratio of less than 1.0 for all lane approaches during the a.m. and p.m. peak-hours except westbound left/through lane at the S. Cranberry Boulevard & Hillsborough Boulevard intersection. Synchro output worksheets of the existing conditions intersection analysis are provided in Appendix D.

Table 3: 2025 Existing A.M. Peak-Hour Intersection Conditions

Intersection	Intersection Control	Intersection LOS	Existing Conditions v/c Ratio Delay (Seconds)											
			Southbound Approach			Northbound Approach			Eastbound Approach			Westbound Approach		
			SBL	SBT	SBR	NBL	NBT	NBR	EBL	EBT	EBR	WBL	WBT	WBR
US 41 & S. Cranberry Boulevard	Signalized	D	0.88	0.34	0.10	0.83	0.44	0.06	0.57	0.82		0.62	0.62	0.77
			65.7	17.7	15.1	68.3	22.1	17.4	59.6	68.3		58.0	65.5	66.5
US 41 & Huge Boulevard	TWSC	A	0.13	-		0.09	-		0.07		0.16			
			18.7	-		17.3	-		14.8		16.9			
			Eastbound Approach			Westbound Approach			Northbound Approach			Southbound Approach		
			EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Hillsborough Boulevard & S. Cranberry Boulevard	TWSC	A	0.21			0.69		0.03	0.05	-		0.02	-	
			19.3			49.5		9.8	8.8	-		7.9	-	

Table 4: 2025 Existing P.M. Peak-Hour Intersection Conditions

Intersection	Intersection Control	Intersection LOS	Existing Conditions v/c Ratio Delay (Seconds)											
			Southbound Approach			Northbound Approach			Eastbound Approach			Westbound Approach		
			SBL	SBT	SBR	NBL	NBT	NBR	EBL	EBT	EBR	WBL	WBT	WBR
US 41 & S. Cranberry Boulevard	Signalized	D	0.96	0.55	0.11	0.89	0.68	0.13	0.53	0.90		0.61	0.41	0.41
			64.0	26.1	19.3	80.0	47.6	37.3	65.6	78.3		66.0	74.0	74.0
US 41 & Huge Boulevard	TWSC	A	0.49	-		0.31	-		0.18			0.21		
			38.5	-		36.3	-		23.1			21.6		
			Eastbound Approach			Westbound Approach			Northbound Approach			Southbound Approach		
			EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Hillsborough Boulevard & S. Cranberry Boulevard	TWSC	A	0.34			1.54		0.07	0.05	-		0.02	-	
			32.5			331.8		13.2	8.2	-		9.2	-	

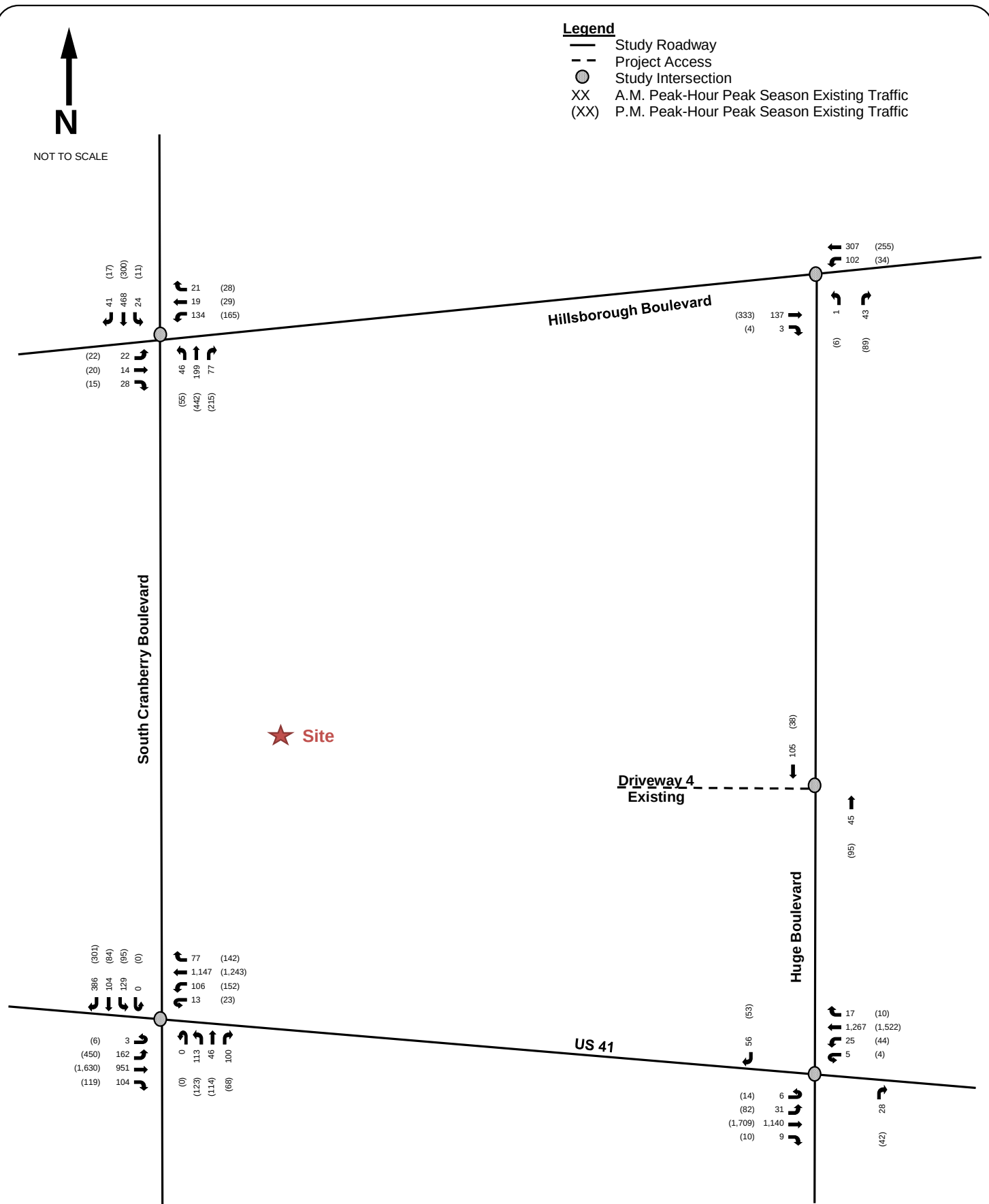


Figure 5
2025 A.M. and P.M. Peak-Hour Peak Season Existing Traffic
Cranberry Commons
Charlotte County, Florida

FUTURE TRAFFIC VOLUMES

Future traffic volumes consist of two components: project traffic and background traffic estimates. Background traffic volumes, including the procedures used to develop these estimates, are provided below.

Future background traffic is defined as a growth of existing traffic forecasted to the buildout year of the proposed development. For the purposes of this analysis, 2026 was considered the buildout year for the development and thus, 2026 conditions were evaluated as the “future” year scenario. A growth rate of 0.12% was calculated based upon five years of historical AADT data from two (2) nearby FDOT traffic monitoring sites. However, in order to provide a conservative analysis, a growth rate of 2.0% was utilized to grow existing volumes to future background volumes. Growth rate calculations and vested traffic information are provided in Appendix E.

The a.m. and p.m. peak-hour background traffic volumes are illustrated in Figure 6. The project traffic, illustrated in Figure 4, was then added to these background traffic volumes to determine total traffic volumes. The a.m. and p.m. peak-hour total traffic volumes are provided in Figure 7.

Volume development sheets are documented in Appendix F.



NOT TO SCALE

Legend

- Study Roadway
- - - Project Access
- Study Intersection
- XX A.M. Peak-Hour Background Traffic
- (XX) P.M. Peak-Hour Background Traffic

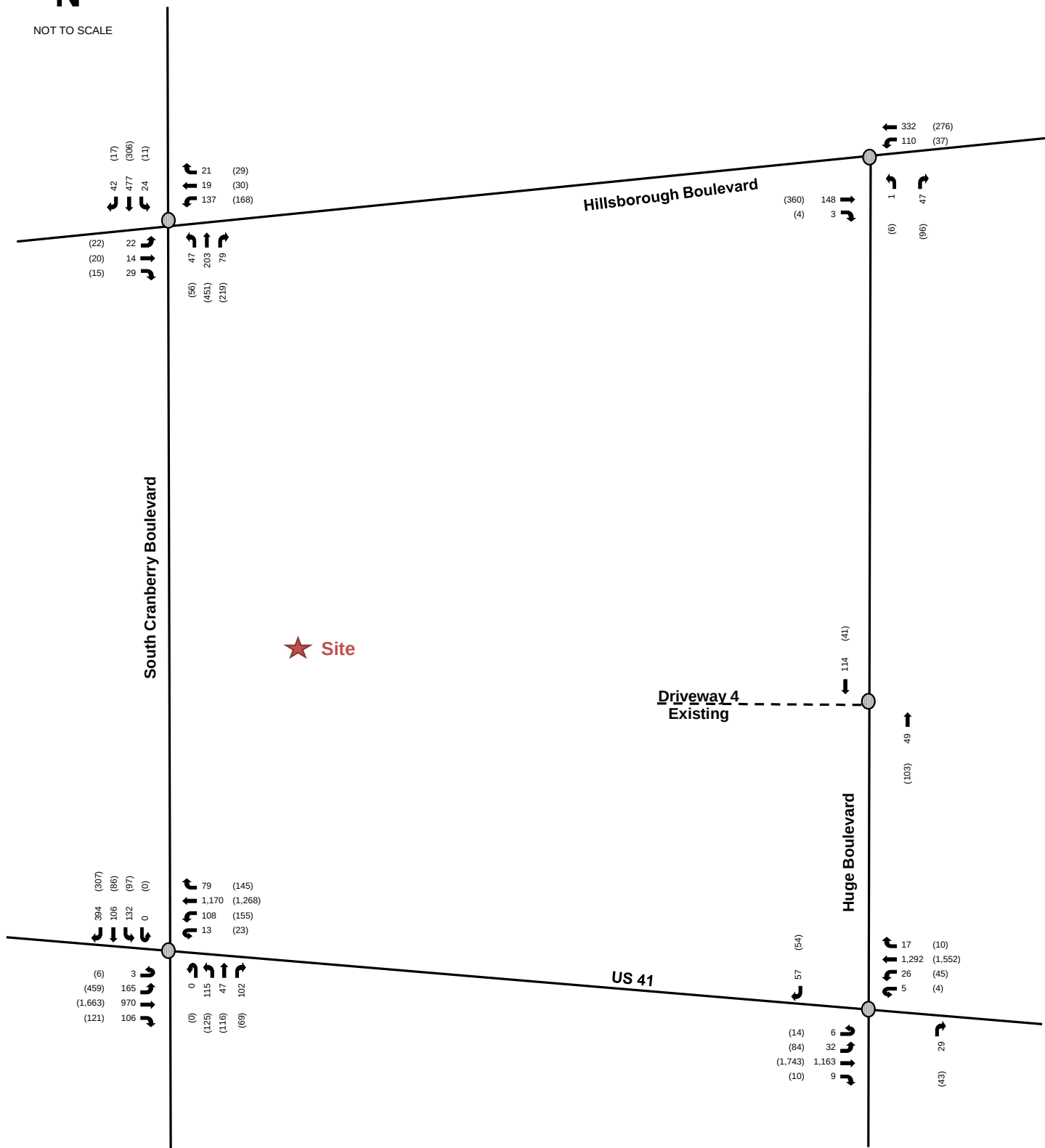


Figure 6
2026 A.M. and P.M. Peak-Hour Background Traffic
Cranberry Commons
Charlotte County, Florida

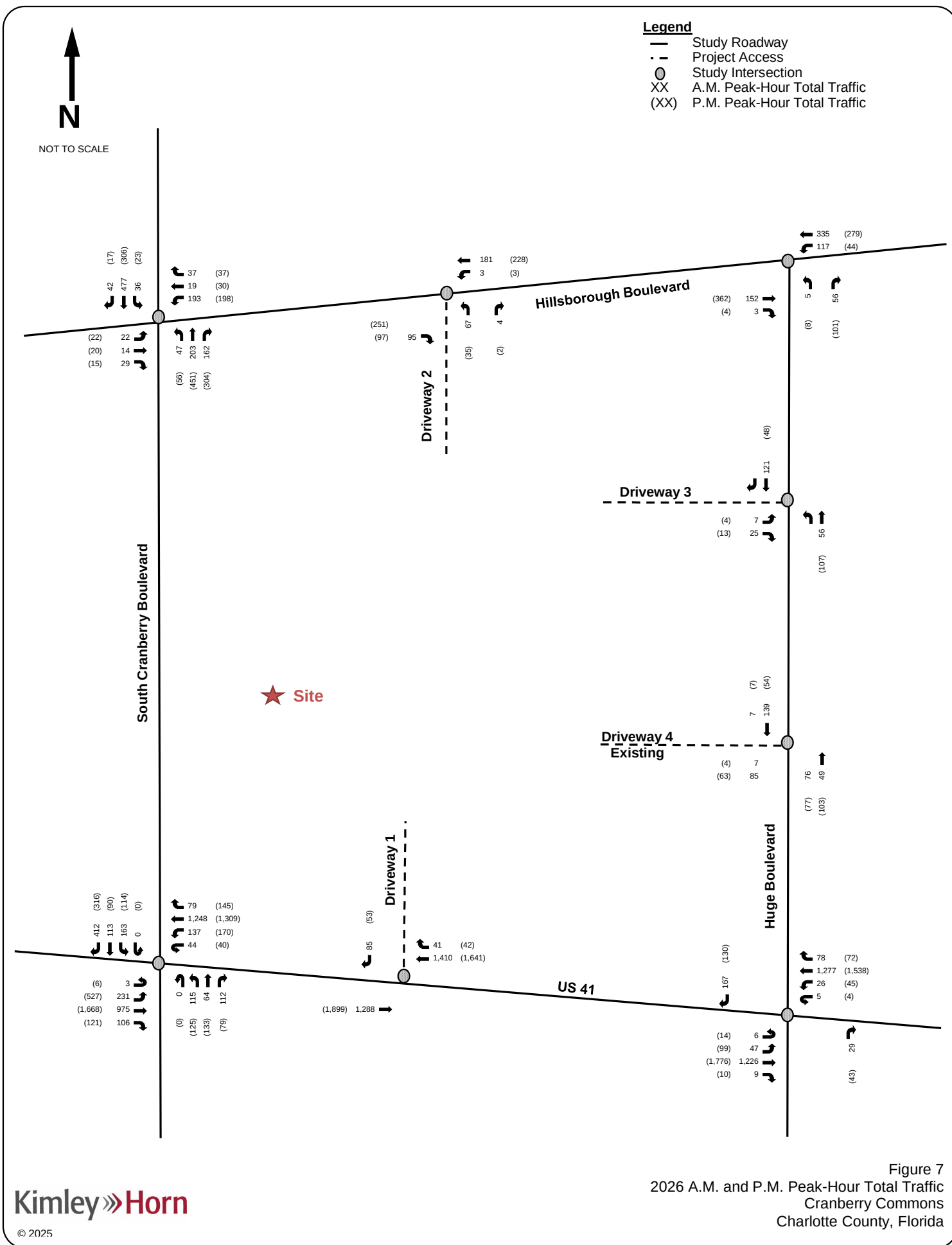


Figure 7
2026 A.M. and P.M. Peak-Hour Total Traffic
Cranberry Commons
Charlotte County, Florida

FUTURE BACKGROUND TRAFFIC CONDITIONS

Future background traffic conditions were evaluated for the study area intersections during the a.m. and p.m. peak hours. For this analysis, future background traffic estimates were considered. A determination of the impact of the non-project background traffic on the roadway network was made, including operating conditions for the study intersections. Based upon the January 31, 2025 meeting with Charlotte County, City of North Port, and FDOT, it is anticipated that the construction of the roundabout at the S. Cranberry Boulevard & Hillsborough Boulevard intersection will begin in 2025. As such, the roundabout was included as a background improvement. As part of the roundabout improvements, the westbound approach from S. Cranberry Boulevard to US 41 will include one (1) left-turn lane, one (1) through lane, and two (2) right-turn lanes. A second receiving lane will also be added to the east leg from S. Cranberry Boulevard to Hillsborough Boulevard. The 90% plans for the roundabout are included in Appendix G.

Background Conditions Intersection Analysis

Using the peak-hour background traffic volumes identified in Figure 6, an intersection analysis was conducted at the study area intersections. The analysis procedures used in this evaluation were consistent with those used to evaluate existing traffic conditions.

The results of the background intersection analysis are summarized in Table 5 and Table 6 and indicate that the study area intersections are anticipated to operate acceptably with a volume-to-capacity (v/c) ratio of less than 1.0 for all lane approaches during the a.m. and p.m. peak-hours.

Synchro output worksheets of the background conditions intersection analysis are provided in Appendix D.

Table 5: 2026 Background A.M. Peak-Hour Intersection Conditions

Intersection	Intersection Control	Intersection LOS	Existing Conditions v/c Ratio Delay (Seconds)											
			Southbound Approach			Northbound Approach			Eastbound Approach			Westbound Approach		
			SBL	SBT	SBR	NBL	NBT	NBR	EBL	EBT	EBR	WBL	WBT	WBR
US 41 & S. Cranberry Boulevard	Signalized	D	0.88	0.39	0.11	0.84	0.51	0.07	0.50	0.49		0.48	0.41	0.57
			65.5	22.3	19.0	68.2	27.6	21.7	52.6	60.7		51.3	58.4	48.4
US 41 & Huge Boulevard	TWSC	A	0.13	-		0.10	-		0.08			0.16		
			19.2	-		17.8	-		15.0			17.3		
			Eastbound Approach			Westbound Approach			Northbound Approach			Southbound Approach		
			EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Hillsborough Boulevard & S. Cranberry Boulevard	Roundabout	A	0.12			0.21			0.21		0.05	0.55		
			7.3			5.9			3.5		10.0			

Table 6: 2026 Background P.M. Peak-Hour Intersection Conditions

Intersection	Intersection Control	Intersection LOS	Existing Conditions v/c Ratio Delay (Seconds)											
			Southbound Approach			Northbound Approach			Eastbound Approach			Westbound Approach		
			SBL	SBT	SBR	NBL	NBT	NBR	EBL	EBT	EBR	WBL	WBT	WBR
US 41 & S. Cranberry Boulevard	Signalized	D	0.96	0.57	0.11	0.89	0.72	0.14	0.54	0.90		0.62	0.41	0.07
			63.3	26.8	19.7	79.9	49.6	38.6	65.5	78.1		65.6	73.7	33.2
US 41 & Huge Boulevard	TWSC	A	0.52	-		0.33	-		0.19			0.21		
			41.6	-		38.6	-		23.8			22.2		
			Eastbound Approach			Westbound Approach			Northbound Approach			Southbound Approach		
			EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Hillsborough Boulevard & S. Cranberry Boulevard	Roundabout	A	0.08			0.34			0.41		0.14	0.36		
			5.4			9.3			4.5			7.2		

FUTURE TOTAL TRAFFIC CONDITIONS

Future traffic conditions were evaluated for the proposed mixed-use development during the a.m. and p.m. peak hours. For this analysis, total traffic estimates (background plus project) were considered. A determination of the impact of the project traffic on the roadway network was made, including operating conditions for the intersections within the study area. Based upon the January 31, 2025 meeting with Charlotte County, City of North Port, and FDOT staff, a second southbound left-turn lane along US 41 will be constructed by the Applicant in coordination with Charlotte County, after the planned second receiving lane is constructed on S. Cranberry Boulevard as part of the roundabout improvements at the S. Cranberry Boulevard & Hillsborough Boulevard intersection by Charlotte County and the City of North port.

Buildout Conditions Intersection Analysis

Using the a.m. and p.m. peak hour total traffic volumes in Figure 7, an intersection analysis was conducted at the study area intersections. The analyses procedures used in this evaluation were consistent with those used to evaluate existing and background traffic conditions.

The results of the buildout intersection analysis are summarized in Table 7 and Table 8 indicate that the study area intersections are anticipated to operate acceptably with a volume-to-capacity (v/c) ratio of less than 1.0 for all lane approaches during the a.m. and p.m. peak hours.

Synchro output worksheets for the buildout conditions intersection analysis are provided in Appendix D.

Table 7: Buildout A.M. Peak-Hour Intersection Conditions

Intersection	Intersection Control	Intersection LOS	Existing Conditions v/c Ratio Delay (Seconds)											
			Southbound Approach			Northbound Approach			Eastbound Approach			Westbound Approach		
			SBL	SBT	SBR	NBL	NBT	NBR	EBL	EBT	EBR	WBL	WBT	WBR
US 41 & S. Cranberry Boulevard	Signalized	D	0.82	0.39	0.11	0.84	0.52	0.06	0.56	0.86		0.82	0.59	0.26
			67.2	20.6	17.5	66.9	21.8	16.8	57.5	67.1		58.7	63.9	51.3
US 41 & Huge Boulevard	TWSC	A	0.21	-		0.11	-		0.08			0.50		
			22.5	-		18.8	-		15.5			25.7		
US 41 & Project Driveway 1	TWSC	A	-			-			N/A			0.29		
			-			-			N/A			21.9		
			Eastbound Approach			Westbound Approach			Northbound Approach			Southbound Approach		
			EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Hillsborough Boulevard & S. Cranberry Boulevard	Roundabout	A	0.12			0.21			0.21		0.05	0.55		
			7.3			5.9			3.5		10.0			

Table 8: Buildout P.M. Peak-Hour Intersection Conditions

Intersection	Intersection Control	Intersection LOS	Existing Conditions v/c Ratio Delay (Seconds)											
			Southbound Approach			Northbound Approach			Eastbound Approach			Westbound Approach		
			SBL	SBT	SBR	NBL	NBT	NBR	EBL	EBT	EBR	WBL	WBT	WBR
US 41 & S. Cranberry Boulevard	Signalized	D	0.90	0.60	0.12	0.90	0.60	0.11	0.50	0.92		0.71	0.37	0.10
			72.2	30.1	22.1	79.1	37.5	28.9	62.5	76.8		63.4	70.8	43.6
US 41 & Huge Boulevard	TWSC	A	0.68	-		0.34	-		0.20			0.54		
			60.9	-		40.6	-		24.4			34.2		
US 41 & Project Driveway 1	TWSC	A	-			-			N/A			0.35		
			-			-			N/A			27.0		
			Eastbound Approach			Westbound Approach			Northbound Approach			Southbound Approach		
			EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Hillsborough Boulevard & S. Cranberry Boulevard	Roundabout	A	0.08			0.40			0.42		0.20	0.38		
			5.7			10.3			4.1		7.7			

TURN LANE ANALYSIS

Based upon the Pre-Application Meeting held with the Florida Department of Transportation, Charlotte County, and the City of North Port on February 15, 2022, turn lane warrant thresholds were reviewed to determine the need for an exclusive right-turn lane at Project Driveway 1 (right-in/right-out only connection along US 41). Also, based on the latest comments from FDOT dated October 16, 2024, a review of potential extensions of existing turn lanes needed along US 41 at the intersections of S. Cranberry Boulevard and Huge Boulevard was conducted.

Guidelines for determining the need for a right-turn lane were utilized based upon the FDOT's *Multimodal Access Management Guidebook (MAMG)* (October 2023) and *Florida Design Manual (FDM)* (2023). Please note that the speed limit along project frontage varies between 45 mph and 50 mph.

US 41 & Driveway 1

Right-turn guidelines in MAMG are based on *NCHRP Report 457*, which does not provide guidelines on 6-lane roadways. Based upon a meeting held with FDOT staff on November 13, 2024, the 3-lane volume (upon buildout in 2026) along northbound US 41 was divided by 3 to get average volume by lane and then multiplied by 2 to estimate through traffic for turn lane calculations. The result of this review indicated that a westbound right-turn lane is warranted. However, as discussed during the meeting held with FDOT staff on November 13, 2024, US 41 in Charlotte County was reviewed in the project vicinity for turn lanes along existing driveways and currently, right turn lanes are not provided at driveways (with developments of all sizes) or unsignalized intersections within one (1) mile of the proposed project driveway in Charlotte County and therefore, a right-turn lane is not recommended at Driveway 1 along US 41. Turn lane documentation is provided in Appendix H.

US 41 & Huge Boulevard

The southbound left-turn lane along US 41 is approximately 400 feet in length. To determine the adequacy of this turn lane, a *Synchro* analysis was conducted for the buildout a.m. and p.m. peak-hour conditions. Based on the results of the analysis, a 95th percentile queue of four (4) vehicles (100 feet) was identified in the p.m. peak hour, higher than the a.m. peak hour queue of one (1) vehicle. Additionally, using a required deceleration length of 290 feet based on FDM Exhibit 212-1 (50 mph), the total turn lane length should be 390 feet. Therefore, the current length is anticipated to be adequate upon project buildout. Table 9 provides a turn lane analysis summary including deceleration, queue, and total turn lane lengths at the intersection.

Table 9: US 41 & Huge Boulevard Turn Lane Analysis

Intersection	Design Speed	Movement	Condition	Required Deceleration Length (ft)	Queue Length ¹ (ft)	Total Required Length (ft)	Existing Length (ft)	Existing Turn Lane Acceptable?	Proposed Length (ft)
US 41 & Huge Boulevard	50 mph	SBL	Existing	290	75	365	400	Yes	400
			Background		75	365	400	Yes	400
			Future Total		100	390	400	Yes	400

¹The worst-case scenario (AM or PM peak hour queue) was utilized.

US 41 & S. Cranberry Boulevard

The southbound left-turn lane along US 41, and westbound left-turn and right-turn lanes along S. Cranberry Boulevard are anticipated to be utilized by project traffic, and as such, were reviewed for adequacy upon project buildout. Queue lengths from the *Synchro* analysis upon project buildout during the a.m. and p.m. peak-hour conditions, whichever was higher, were utilized. As detailed earlier, a second westbound right-turn lane will be constructed on S. Cranberry Boulevard as part of the roundabout improvements and a second southbound left-turn lane will be constructed on US 41, along with a receiving lane on S. Cranberry Boulevard. Table 10 provides a turn lane analysis summary including deceleration, queue, and total turn lane lengths at the intersection.

Table 10: US 41 & S. Cranberry Boulevard Turn Lane Analysis

Intersection	Design Speed	Movement	Condition	Required Deceleration Length (ft)	Queue Length ⁴ (ft)	Total Required Length (ft)	Existing Length (ft)	Existing Turn Lane Acceptable?	Proposed Length (ft)
US 41 & S. Cranberry Boulevard	50 mph	SBL ¹	Existing	290	1,350	1,640	715	No	-
			Background		750	1,040	715	No	-
			Future Total		400	690	715	Yes	-
		WBL	Existing	0 ³	175	175	225	Yes	-
			Background		175	175	275	Yes	-
			Future Total		225	225	275	Yes	-
		WBR ²	Existing	0 ³	325	325	250	No	-
			Background		175	175	275	Yes	-
			Future Total		200	200	275	Yes	-

¹Dual left-turn lanes under future total buildout.

²Dual right-turn lanes under background and future total buildout.

³No deceleration length required because of the roundabout.

⁴The worst-case scenario (AM or PM peak hour queue) was utilized.

MULTIMODAL ANALYSIS

A Pedestrian/Bicycle/Transit Impact Analysis was conducted, per Section 4.8 of the 2024 *Multimodal Site Impact Handbook* (MSIH). Multimodal trips were calculated based upon ITE's 11th Edition *Trip Generation Manual*.

As shown in Table 11, the highest number of non-motorized trips the proposed project is anticipated to generate is 69 in the p.m. peak-hour, qualifying for a Level 3 Analysis based on C3-suburban context classification along US 41.

Table 11: Multimodal Trip Generation Analysis

Land Use	ITE Code	Scale	ITE Units	Mode	Peak-Hour	Average Rate	Trips
Multifamily Housing Mid-Rise	221	340	DU	Walk + Bike + Transit	A.M.	N/A	N/A
					P.M.	0.07	24
Strip Retail Plaza (<40K)	822	10	KSF	Walk + Bike + Transit	A.M.	N/A	N/A
					P.M.	0.56	6
High-Turnover Restaurant with Drive Through-Window	932 ¹	7.762	KSF	Walk + Bike + Transit	A.M.	N/A	N/A
					P.M.	2.92	23
Fast-Food Restaurant with Drive-Through Window	934	5.433	KSF	Walk + Bike + Transit	A.M.	N/A	N/A
					P.M.	2.92	16
Automated Car Wash	948	1	TUNNEL	Walk + Bike + Transit	A.M.	N/A	N/A
					P.M.	N/A	N/A
Total						A.M.	N/A
						P.M.	69

1. ITE does not provide trip rates for LUC 932 (High-Turnover Restaurant with Drive Through-Window), so LUC 934 (Fast-Food Restaurant with Drive-Through Window) was utilized.

For a Level 3 Analysis, the study area includes a 1,500-foot radius that measures from each driveway, or the nearest signalized intersection that is outside of the radius. Figure 8 shows the study area. Pedestrian, bicycle and transit facilities within the study area are discussed below.

Pedestrians

A 6-foot sidewalk currently exists along both sides of US 41 within the study area. Sidewalks will be provided on-site and connected to the sidewalk on the east side of US 41.

Bicyclists

Dedicated bicycle lanes currently exist along both sides of US 41 within the study area.

Transit

Charlotte County currently does not provide Transit Routes along US 41 adjacent to the project site.



Legend

-  Project Site
-  Study Area

Kimley»Horn

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201 North Franklin St, Suite 1400, Tampa, FL 33602
Phone: (813) 620 1460
www.kimley-horn.com

Multimodal Study Area Map

HUGE BOULEVARD MIXED USE CHARLOTTE COUNTY, FLORIDA

Project No: 147000004

Scale: As Noted

March 2025

Figure 8

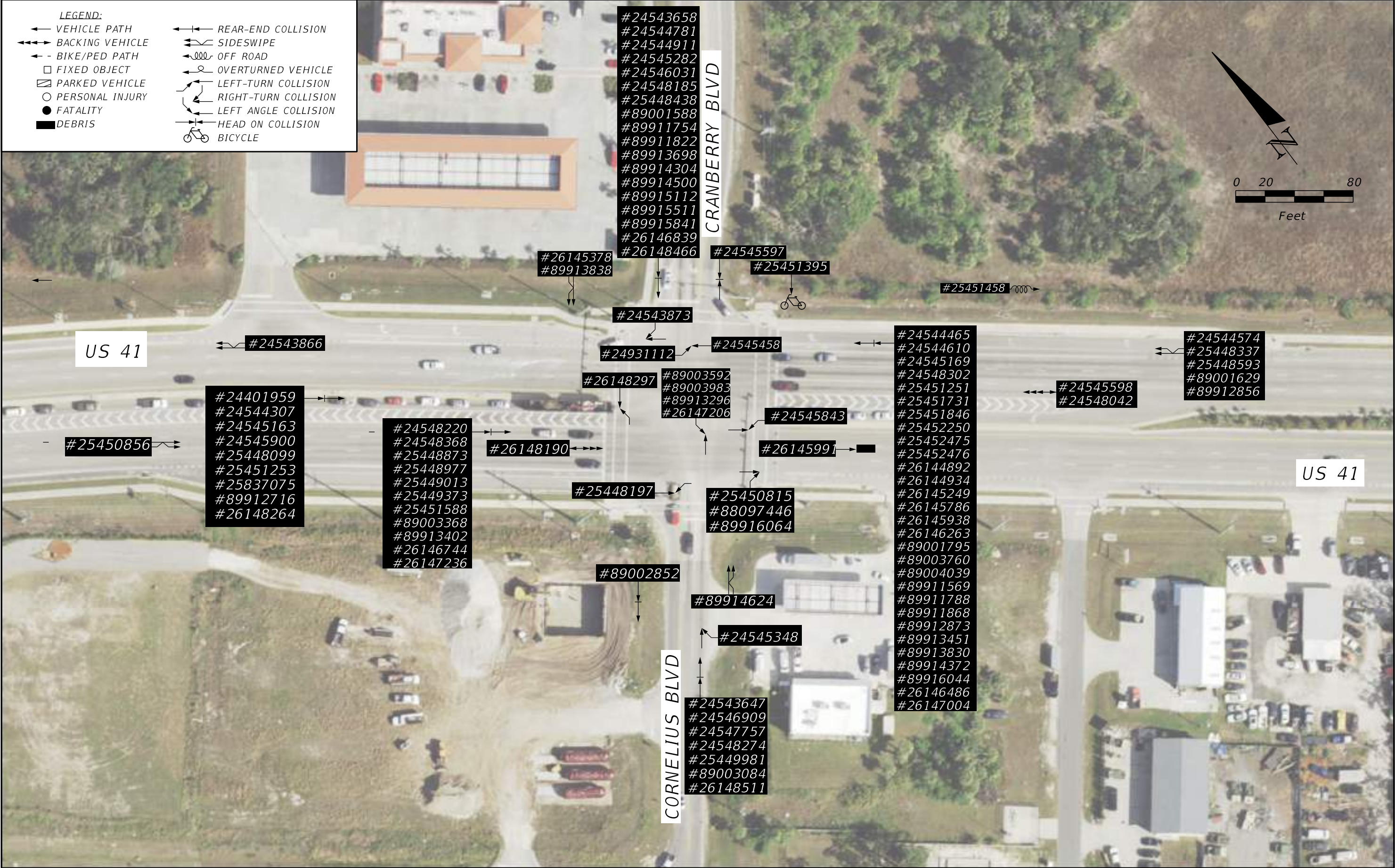
SAFETY ANALYSIS

A review of crash data was completed at the study area intersections of US 41 & S. Cranberry Boulevard, S. Cranberry Boulevard & Hillsborough Boulevard, and US 41 & Huge Boulevard, per Section 4.9 of the 2024 *Multimodal Site Impact Handbook*. Crash data was obtained from *Signal Four Analytics* for the five-year period between June 2019 and June 2024.

Table 12 provides a summary of the crashes that occurred at the US 41 & S. Cranberry Boulevard intersection. 75 out of the 106 crashes were rear end crashes. It is recommended for the FDOT to review the reasons for the existing rear-end crashes and potential solutions for the crashes, e.g., modifying yellow clearance times (change interval). A crash diagram is provided below in Figure 9.

Table 12: US 41 & S. Cranberry Boulevard Crash Summary

Year	Backed Into	Bicycle	Left Turn	Off Road	Debris	Rear End	Right Turn	Sideswipe	Head On	Total
2019	0	0	0	0	0	6	0	1	0	7
2020	0	0	3	0	0	13	0	2	0	18
2021	1	0	2	0	0	18	2	3	1	27
2022	1	0	2	0	0	14	1	2	0	20
2023	0	1	0	1	1	16	2	2	0	23
2024	1	0	2	0	0	8	0	0	0	11
Total	3	1	9	1	1	75	5	10	1	106



US 41 & CRANBERRY BLVD

CRASH DIAGRAM

FIGURE 9

Table 13 provides a summary of the crashes that occurred at the S. Cranberry Boulevard & Hillsborough Boulevard intersection. Seven (7) out of the 19 crashes were angle crashes. No crash trends were identified. A crash diagram is provided below in Figure 10.

Table 13: S. Cranberry Boulevard & Hillsborough Boulevard Crash Summary

Year	Left Turn	Off Road	Left Angle	Rear End	Right Turn	Angle	Total
2019	1	0	0	1	0	1	3
2020	0	0	0	1	0	1	2
2021	0	0	0	0	1	0	1
2022	1	0	0	0	0	0	1
2023	1	1	1	0	1	1	5
2024	1	0	0	0	2	4	7
Total	4	1	1	2	4	7	19



CRANBERRY BLVD & HILLSBOROUGH BLVD

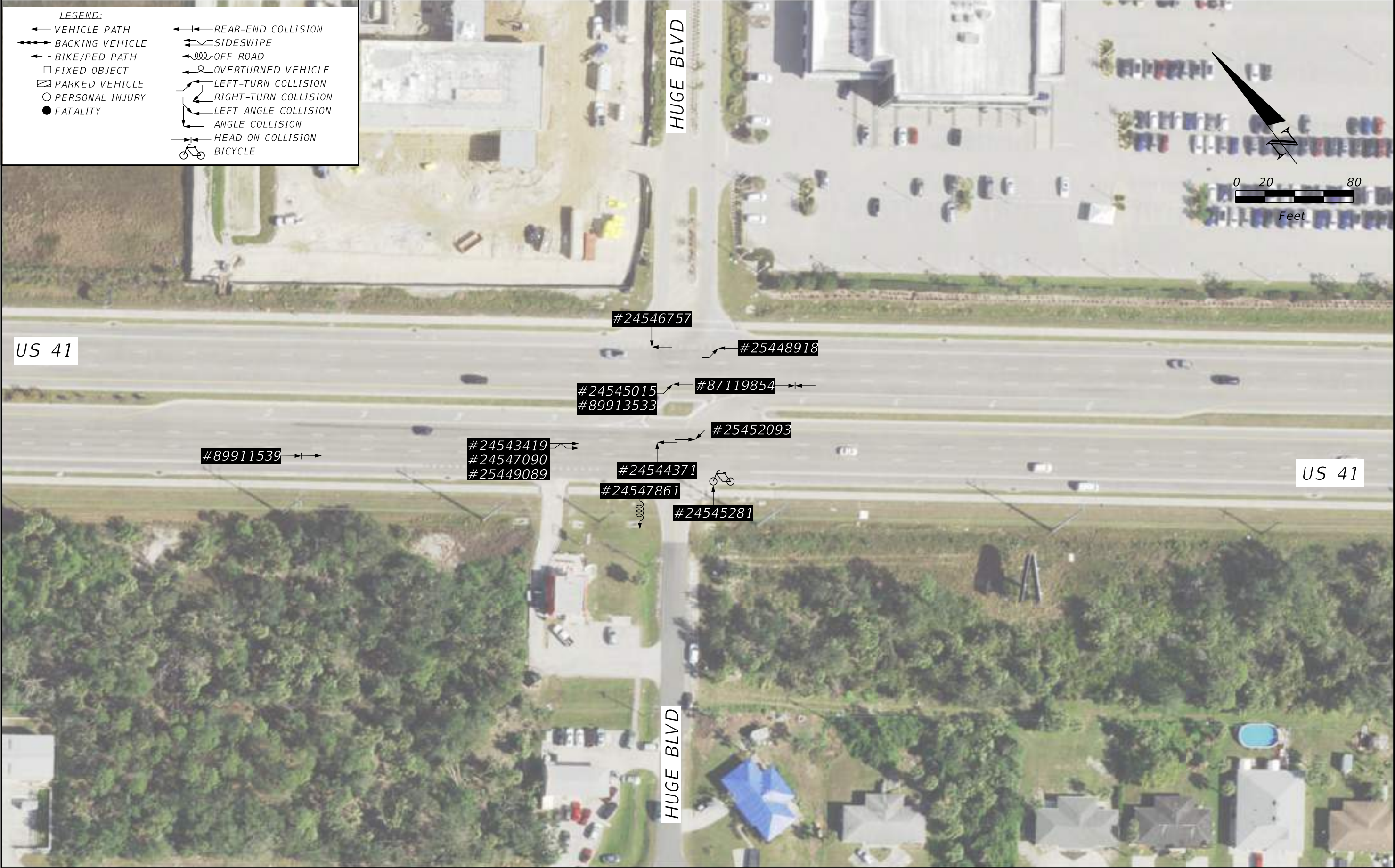
CRASH DIAGRAM

FIGURE 10

Table 14 provides a summary of the crashes that occurred at the US 41 & Huge Boulevard intersection. Four (4) out of the 13 crashes were left turn crashes. No crash trends were identified. A crash diagram is provided below in Figure 11.

Table 14: US 41 & Huge Boulevard Crash Summary

Year	Head On	Bicycle	Left Turn	Off Road	Angle	Rear End	Sideswipe	Total
2019	0	0	0	0	0	0	0	0
2020	1	0	1	0	0	1	0	3
2021	0	1	1	0	1	0	1	4
2022	0	0	1	1	1	0	2	5
2023	0	0	1	0	0	0	0	1
2024	0	0	0	0	0	0	0	0
Total	1	1	4	1	2	1	3	13



US 41 & HUGE BLVD

CRASH DIAGRAM

FIGURE 11

CONCLUSION

Based upon the Pre-Application Meeting held with the Florida Department of Transportation, Charlotte County, and the City of North Port on February 15, 2022, the latest comments from FDOT dated October 16, 2024, and subsequent discussions with FDOT, Charlotte County, and City of North Port on November 13, 2024, and January 31, 2025, this updated Traffic Impact Study (TIS) provides an evaluation of the transportation impacts of the proposed Cranberry Commons development. It is anticipated to be built-out by 2026 and is proposed to consist of up to the following development:

- 340 multi-family housing mid-rise units
- 7,762 square feet of restaurant
- 5,433 square feet of fast-food restaurant with drive-through
- 5,231 square feet (1 tunnel) of car wash
- 10,000 square feet of retail

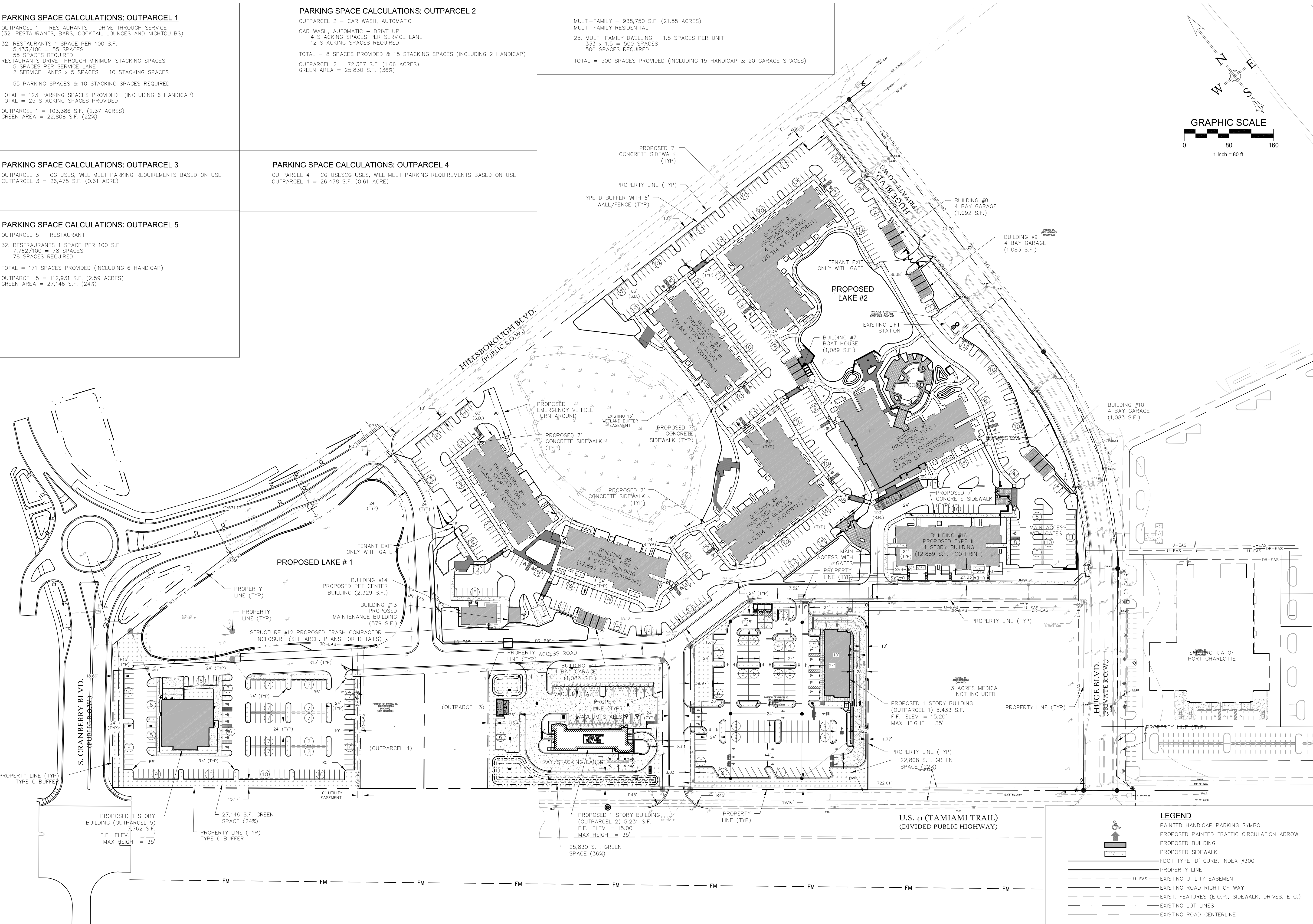
As shown in the conceptual site plan in Appendix A, access to the site is provided through the following access connections:

- Project Driveway 1: Proposed right-in/right-out only connection along US 41
- Project Driveway 2: Proposed full-access connection along Hillsborough Boulevard
- Project Driveway 3: Proposed egress-only connection along Huge Boulevard (Northern)
- Project Driveway 4: Existing full-access connection along Huge Boulevard (Southern)

Based upon the results of the intersection analysis, the study area intersections are anticipated to operate with a volume-to-capacity (v/c) ratio of less than 1.0 for all lane approaches during the a.m. and p.m. peak-hours, following buildout of the proposed development. The buildout conditions account for the construction of the roundabout at the S. Cranberry Boulevard & Hillsborough Boulevard intersection by Charlotte County and the City of North Port. As part of

the roundabout improvements, the westbound approach from S. Cranberry Boulevard to US 41 will include one (1) left-turn lane, one (1) through lane, and two (2) right-turn lanes. A second receiving lane will also be added to S. Cranberry Boulevard (east leg) from US 41 to Hillsborough Boulevard. Additionally, based upon the January 31, 2025 meeting with Charlotte County, City of North Port, and FDOT, a second southbound left-turn lane along US 41 will be constructed by the Applicant in coordination with Charlotte County, after the planned second receiving lane is constructed on S. Cranberry Boulevard as part of the roundabout improvements by Charlotte County and the City of North Port.

APPENDIX A:
Conceptual Site Plan and
Trip Generation Documentation



PARKING SPACE CALCULATIONS: OUTPARCEL 1
OUTPARCEL 1 – RESTAURANTS – DRIVE THROUGH SERVICE
(32 RESTAURANTS, BARS, COCKTAIL LOUNGES AND NIGHTCLUBS)
32 RESTAURANTS 1 SPACE PER 100 S.F.
5,433/100 = 55 SPACES
55 SPACES REQUIRED
RESTAURANTS DRIVE THROUGH MINIMUM STACKING SPACES
5 SPACES PER SERVICE LANE
2 SERVICE LANES x 5 SPACES = 10 STACKING SPACES
55 PARKING SPACES & 10 STACKING SPACES REQUIRED
TOTAL = 123 PARKING SPACES PROVIDED (INCLUDING 6 HANDICAP)
TOTAL = 25 STACKING SPACES PROVIDED
OUTPARCEL 1 = 103,386 S.F. (2.37 ACRES)
GREEN AREA = 22,808 S.F. (22%)

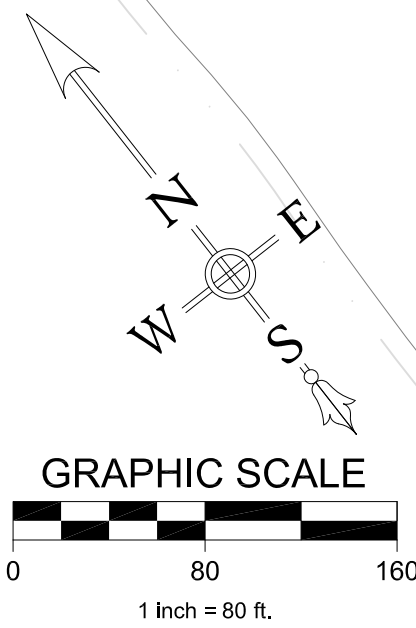
PARKING SPACE CALCULATIONS: OUTPARCEL 3
OUTPARCEL 3 – CG USES, WILL MEET PARKING REQUIREMENTS BASED ON USE
OUTPARCEL 3 = 26,478 S.F. (0.61 ACRE)

PARKING SPACE CALCULATIONS: OUTPARCEL 5
OUTPARCEL 5 – RESTAURANT
32 RESTAURANTS 1 SPACE PER 100 S.F.
7,762/100 = 78 SPACES
78 SPACES REQUIRED
TOTAL = 171 SPACES PROVIDED (INCLUDING 6 HANDICAP)
OUTPARCEL 5 = 112,931 S.F. (2.59 ACRES)
GREEN AREA = 27,146 S.F. (24%)

PARKING SPACE CALCULATIONS: OUTPARCEL 2
OUTPARCEL 2 – CAR WASH, AUTOMATIC
CAR WASH, AUTOMATIC – DRIVE UP
4 STACKING SPACES PER SERVICE LANE
12 STACKING SPACES REQUIRED
TOTAL = 8 SPACES PROVIDED & 15 STACKING SPACES (INCLUDING 2 HANDICAP)
OUTPARCEL 2 = 72,387 S.F. (1.66 ACRES)
GREEN AREA = 25,830 S.F. (36%)

PARKING SPACE CALCULATIONS: OUTPARCEL 4
OUTPARCEL 4 – CG USES/CG USES, WILL MEET PARKING REQUIREMENTS BASED ON USE
OUTPARCEL 4 = 26,478 S.F. (0.61 ACRE)

MULTI-FAMILY = 938,750 S.F. (21.55 ACRES)
MULTI-FAMILY RESIDENTIAL
25 MULTI-FAMILY DWELLING – 1.5 SPACES PER UNIT
333 x 1.5 = 500 SPACES
500 SPACES REQUIRED
TOTAL = 500 SPACES PROVIDED (INCLUDING 15 HANDICAP & 20 GARAGE SPACES)

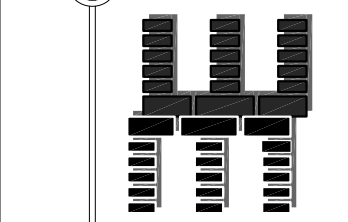


REVISION DESCRIPTION	
11/29/2022	ADDITIONAL H/C SPACES
01/23/2023	BORDER REVISION
04/07/2023	REV. OUTPARCEL #1

DATE	REVISION DESCRIPTION
11/29/2022	ADDITIONAL H/C SPACES
01/23/2023	BORDER REVISION
04/07/2023	REV. OUTPARCEL #1

DATE	REVISION DESCRIPTION
11/29/2022	ADDITIONAL H/C SPACES
01/23/2023	BORDER REVISION
04/07/2023	REV. OUTPARCEL #1

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Jason W@exceptionaleng.com
Business Cert # 25968



Date : 10-17-21
Scale : 1" = 80'
Design: J.P.W.
CAD : J.R.B.
Check : J.P.W.
File : 21-119-C003

MASTER SITE PLAN
HUGE BOULEVARD - OUTPARCELS 1 - 5
CHARLOTTE COUNTY, FLORIDA
WBF FLORIDA PROPERTIES III, LLC.
P.O. BOX 69, ADAMS, NEW YORK 13605

SHEET #
MCP
JOB # 21-119

DAILY PROJECT TRIP GENERATION

ITE TRIP GENERATION CHARACTERISTICS					DIRECTIONAL DISTRIBUTION		GROSS TRIPS			INTERNAL CAPTURE		TOTAL EXTERNAL TRIPS			PASS-BY CAPTURE		NET NEW EXTERNAL TRIPS		
Land Use	ITE Edition	ITE Code	Scale	ITE Units	Percent		In	Out	Total	Percent	IC Trips	In	Out	Total	Percent	PB Trips	In	Out	Total
					In	Out													
Multifamily Housing Mid-Rise	11	221	340	DU	50%	50%	788	788	1,576	21.3%	336	620	620	1,240	0.0%	0	620	620	1,240
Strip Retail Plaza (<40k)	11	822	10	KSF	50%	50%	272	272	544	41.7%	226	159	159	318	0.0%	0	159	159	318
High-Turnover (Sit-Down) Restaurant	11	932	7.762	KSF	50%	50%	416	416	832	11.3%	94	369	369	738	0.0%	0	369	369	738
Fast-Food Restaurant with Drive-Through Window	11	934	5.433	KSF	50%	50%	1,270	1,270	2,540	11.3%	288	1,126	1,126	2,252	0.0%	0	1,126	1,126	2,252
Automated Car Wash	11	948	1	WASH	50%	50%	388	388	776	0.0%	0	388	388	776	0.0%	0	388	388	776
Total:							3,134	3,134	6,268	15.1%	944	2,662	2,662	5,324			2,662	2,662	5,324

Internal Capture Reduction Calculations

Methodology for A.M. Peak Hour and P.M. Peak Hour
based on the *Trip Generation Handbook* , 3rd Edition, published by the Institute of Transportation Engineers

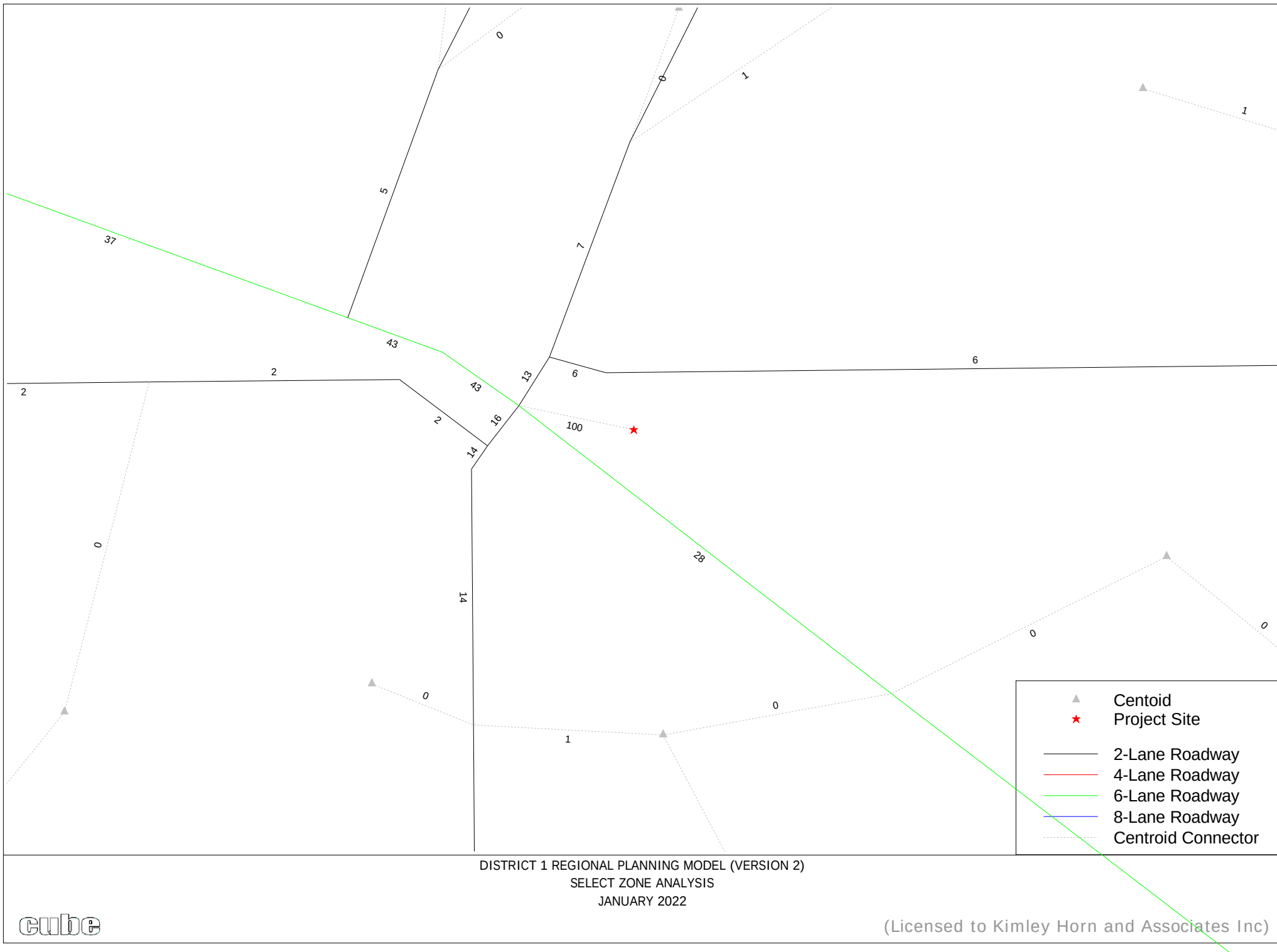
Methodology for Daily
based on the average of the Unconstrained Rates for the A.M. Peak Hour and P.M. Peak Hour

SUMMARY (EXISTING)

GROSS TRIP GENERATION							
INPUT	Land Use	Daily		A.M. Peak Hour		P.M. Peak Hour	
		Enter	Exit	Enter	Exit	Enter	Exit
	Office						
	Retail	272	272	14	10	33	33
	Restaurant	1,686	1,686	164	152	136	113
	Cinema/Entertainment						
	Residential	788	788	32	106	81	52
	Hotel						
		2,746	2,746	210	268	250	198
INTERNAL TRIPS							
OUTPUT	Land Use	Daily		A.M. Peak Hour		P.M. Peak Hour	
		Enter	Exit	Enter	Exit	Enter	Exit
	Office	0	0	0	0	0	0
	Retail	116	111	2	2	20	19
	Restaurant	219	162	22	3	21	30
	Cinema/Entertainment	0	0	0	0	0	0
	Residential	137	199	3	22	22	14
	Hotel	0	0	0	0	0	0
		472	472	27	27	63	63
OUTPUT	Total % Reduction	17.2%		11.3%		28.1%	
	Office						
	Retail	41.7%		16.7%		59.1%	
	Restaurant	11.3%		7.9%		20.5%	
	Cinema/Entertainment						
	Residential	21.3%		18.1%		27.1%	
	Hotel						
EXTERNAL TRIPS							
OUTPUT	Land Use	Daily		A.M. Peak Hour		P.M. Peak Hour	
		Enter	Exit	Enter	Exit	Enter	Exit
	Office	0	0	0	0	0	0
	Retail	156	161	12	8	13	14
	Restaurant	1,467	1,524	142	149	115	83
	Cinema/Entertainment	0	0	0	0	0	0
	Residential	651	589	29	84	59	38
	Hotel	0	0	0	0	0	0
		2,274	2,274	183	241	187	135

APPENDIX B:

FSUTMS Model Output



APPENDIX C:
Raw Turning Movement Counts and Peak
Season Factor Report



[Click here for Map](#)

Peak Hour Turning Movement Count

Charlotte County, FL



www.marrtraffic.com



Wednesday, February 19, 2025		
Mostly Cloudy		71°F
Period	0700 - 0900	APPLY
Peak Hour	0745 - 0845	APPLY
Global PH	0730 - 0830	APPLY

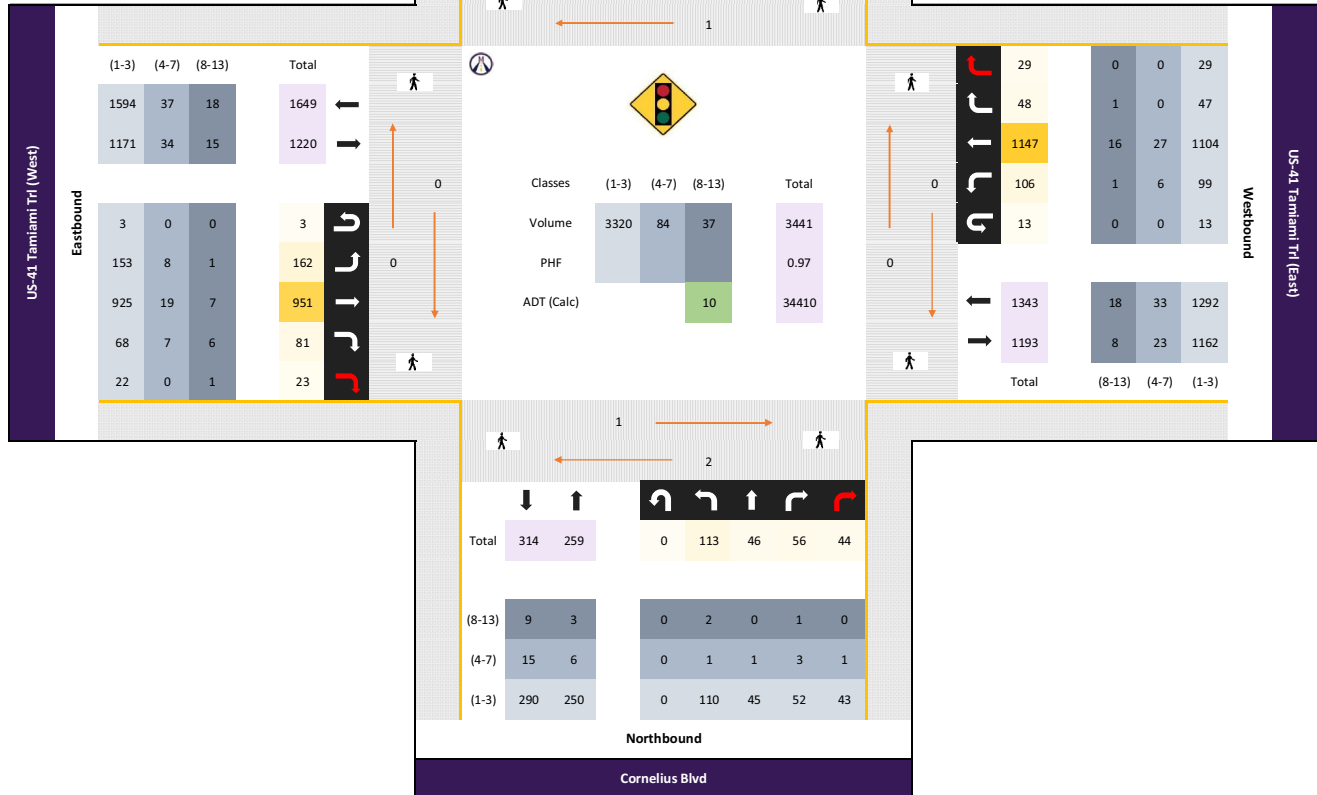
* the Peak Hour Diagram does not include bicycles

Session Parameters

(Drop Down Menu)

Peak Hour

Volume





[Click here for Map](#)

Peak Hour Turning Movement Count

Charlotte County, FL



www.marrtraffic.com



Wednesday, February 19, 2025		
Mostly Cloudy		71°F
Period	1600 - 1800	APPLY
Peak Hour	1645 - 1745	APPLY
Global PH	1630 - 1730	APPLY

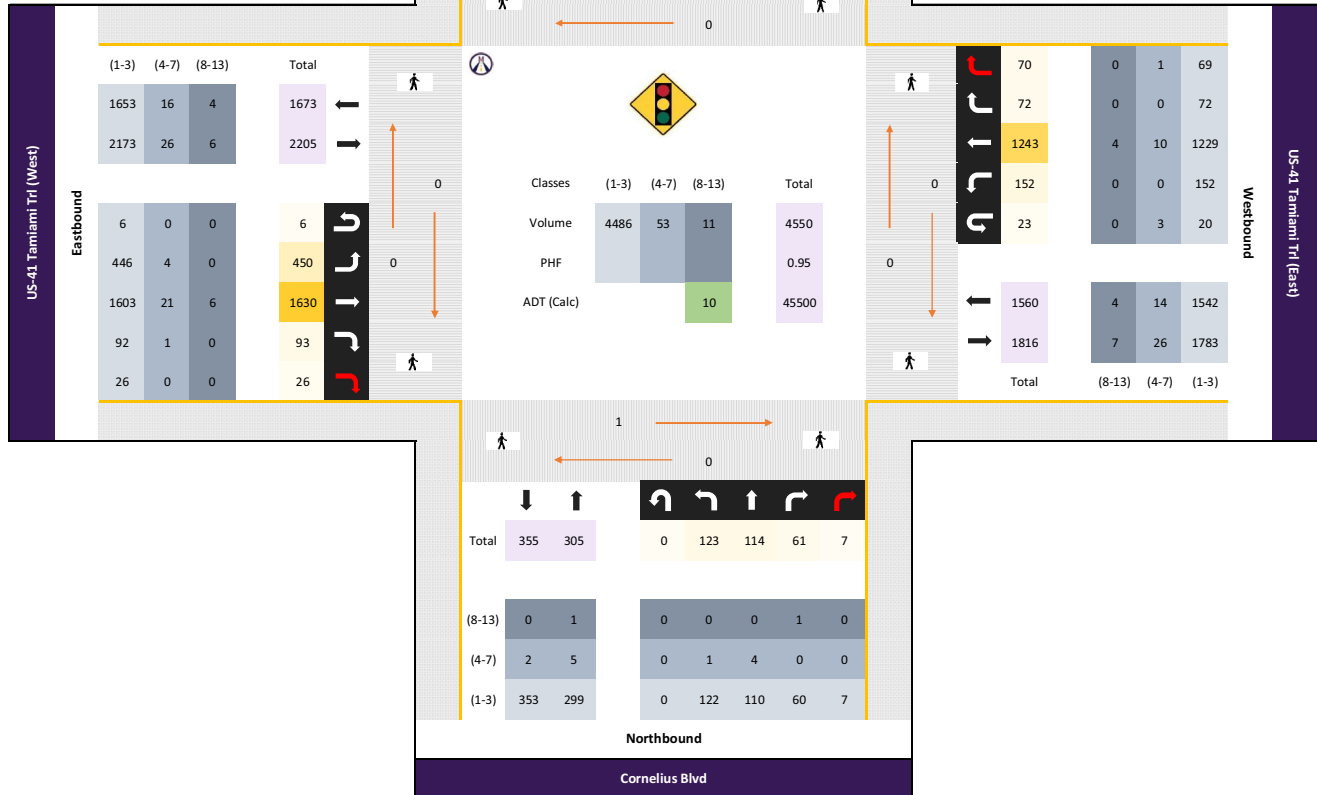
* the Peak Hour Diagram does not include bicycles

Session Parameters

(Drop Down Menu)

Peak Hour

Volume





[Click here for Map](#)

Peak Hour Turning Movement Count

Charlotte County, FL

www.marrtraffic.com



Wednesday, February 19, 2025		
	Mostly Cloudy	71°F
Period	0700 - 0900	APPLY
Peak Hour	0745 - 0845	APPLY
Global PH	0730 - 0830	APPLY

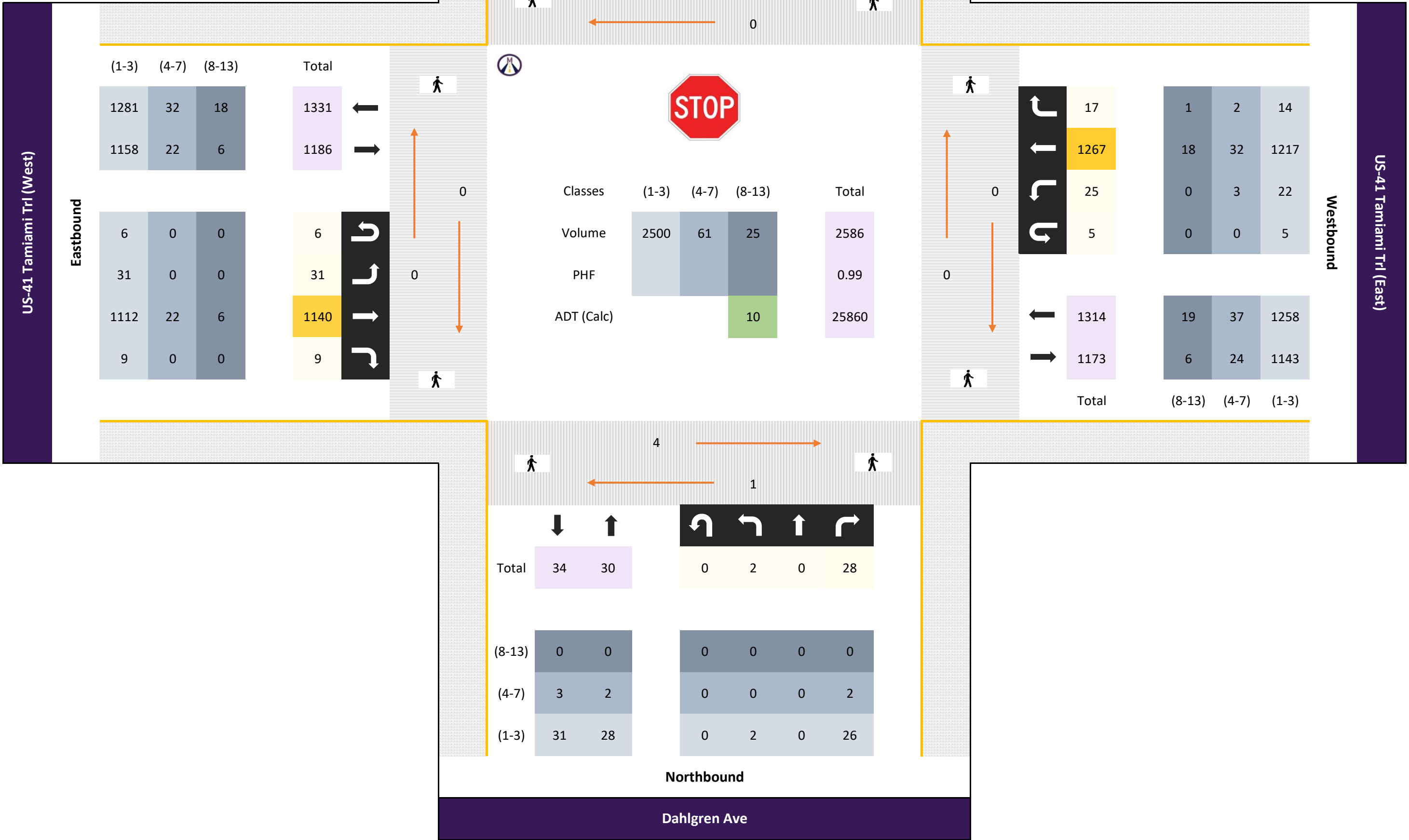
* the Peak Hour Diagram does not include bicycles

Session Parameters

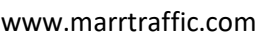
(Drop Down Menu)

Peak Hour

Volume



Charlotte County, FL



* the Peak Hour Diagram does not include bicycles

Huge Blvd

Southbound

50	0	0	0	50	88	(1-3)
3	0	0	0	3	4	(4-7)
0	0	0	0	0	0	(8-13)

	53	0	0	0	53	92	Total
--	----	---	---	---	----	----	-------



1 



0	Classes	(1-3)	(4-7)	(8-13)	Total	
	Volume	3435	45	11	3491	
	PHF				0.95	0
	ADT (Calc)			10	34910	

Session Parameters

(Drop Down Menu)

Peak Hour

Volume

US-41 Tamiami Trl (West)

	(1-3)	(4-7)	(8-13)	Total	
	1573	14	3	1590	←
	1777	30	8	1815	→

	(1-3)	(4-7)	(8-13)	Total	
Eastbound	14	0	0	14	↶
	79	3	0	82	↷
	1674	27	8	1709	→
	10	0	0	10	↶

(1-3)	(4-7)	(8-13)	Total	
1573	14	3	1590	←
1777	30	8	1815	→

Eastbound	14	0	0	14	U-turn
	79	3	0	82	U-turn
	1674	27	8	1709	Through
	10	0	0	10	U-turn

1 →

Diagram illustrating a 1D lattice structure. A central site is labeled 0, and two sites on either side are labeled λ . An orange arrow points from site 0 to the left site λ .

Total	54	43	0	1	0	42
-------	----	----	---	---	---	----

Response	Percentage
Yes, it is a crisis	85%
No, it is not a crisis	15%

(8-13)	0	0	0	0	0	0
--------	---	---	---	---	---	---

(4-7)	0	0	0	0	0	0

(1-3)	54	43	0	1	0	42
-------	----	----	---	---	---	----

Northbound	

Dahlgren Ave



[Click here for Map](#)

Peak Hour Turning Movement Count

Charlotte County, FL



www.marrtraffic.com



Wednesday, February 19, 2025		
	Mostly Cloudy	71°F
Period	0700 - 0900	APPLY
Peak Hour	0730 - 0830	APPLY
Global PH	0730 - 0830	APPLY

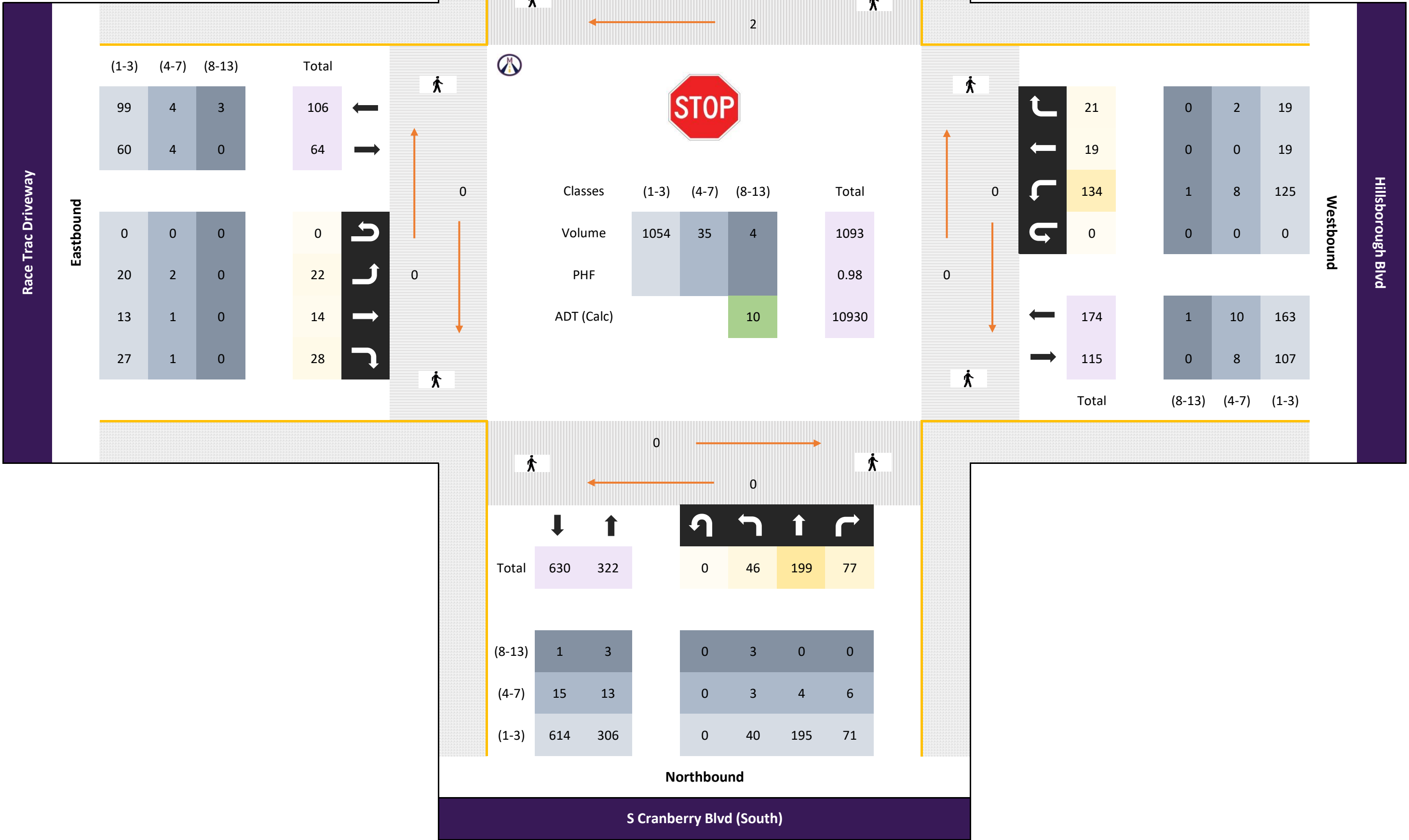
* the Peak Hour Diagram does not include bicycles

Session Parameters

(Drop Down Menu)

Peak Hour

Volume



STOP

Classes

Volume

PHF

ADT (Calc)

	(1-3)	(4-7)	(8-13)	Total
Volume	1054	35	4	1093
PHF				0.98
ADT (Calc)			10	10930

Westbound

(1-3)	(4-7)	(8-13)	Total
21	19	134	0

0

0

0

0

0

0

174

115

0

2

19

0

0

19

1

8

125

0

0

0

1

10

163

0

8

107

0

2

19

0

0

19

1

8

125

0

0

0

1

10

163

0

8

107

S Cranberry Blvd (North)

Southbound

(1-3)	(4-7)	(8-13)	Total
40	462	23	0
1	6	1	0
0	0	0	0

41

468

24

0

533

242

0

2

0

2

S Cranberry Blvd (South)

Northbound

(8-13)	(4-7)	(1-3)	Total
1	3	0	0
15	13	0	6
614	306	0	71

0

46

199

77

630

322

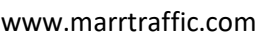
0

0

0

0

Charlotte County, FL



* the Peak Hour Diagram does not include bicycles

S Cranberry Blvd (North)

Southbound

17	297	11	0	325	484	(1-3)
0	3	0	0	3	8	(4-7)
0	0	0	0	0	0	(8-13)

17	300	11	0	328	492	Total
----	-----	----	---	-----	-----	-------



2 



Session Parameters

(Drop Down Menu)

A diagram consisting of a single rectangular box with a black border and a light purple fill. The text "Peak Hour" is centered inside the box in a bold, black, sans-serif font.

Volume

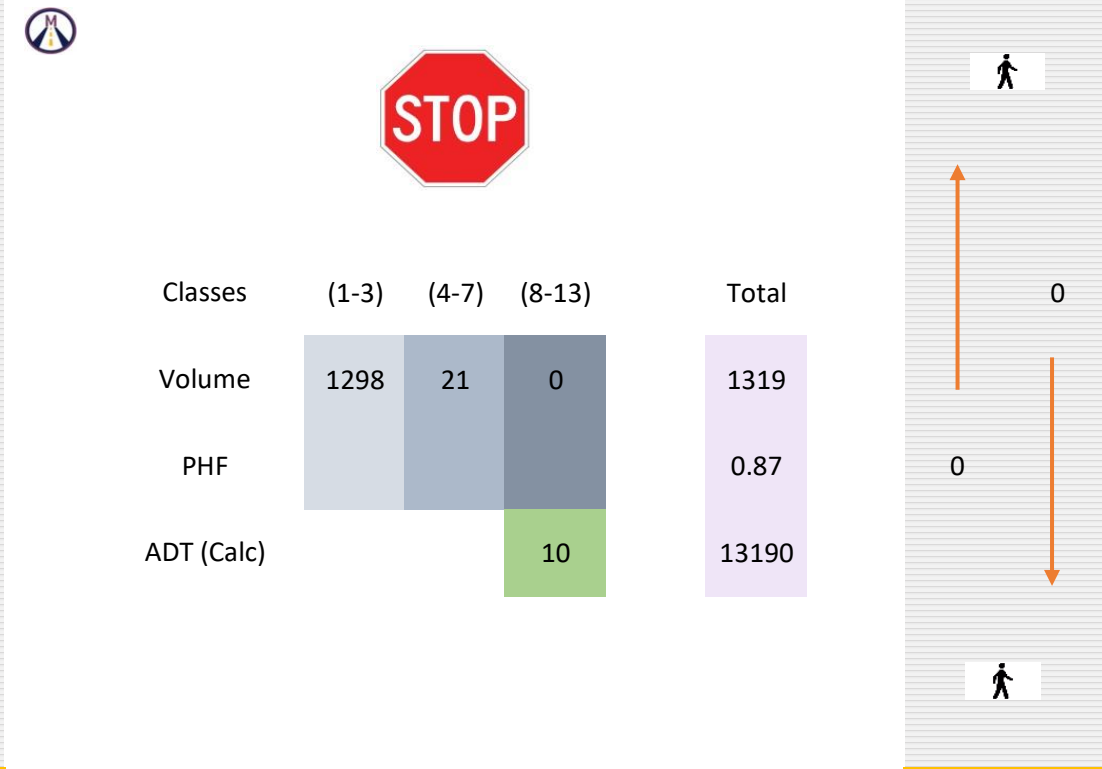
Race Trac Driveway

	(1-3)	(4-7)	(8-13)	Total	
Eastbound	100	1	0	101	←
	56	1	0	57	→
	0	0	0	0	↶
	21	1	0	22	↷
	20	0	0	20	→
	15	0	0	15	↶

	(1-3)	(4-7)	(8-13)	Total
100	1	0	101	←
56	1	0	57	→

[illegible]

Classes	(1-3)	(4-7)	(8-13)	Total
Volume	1298	21	0	1319
PHF				0.87
ADT (Calc)			10	13190



The diagram illustrates the traffic flow and volume data for the Hillspborough Blvd intersection. The intersection is divided into four quadrants, each representing a different traffic flow direction. The data is presented in a table format, with the total volume for each direction and the volume for each of the four quadrants.

Direction	Quadrant	Volume
Westbound	Total	28
	Quadrant 1 (Top-Left)	29
	Quadrant 2 (Top-Right)	165
	Quadrant 3 (Bottom-Left)	0
	Quadrant 4 (Bottom-Right)	0
Eastbound	Total	222
	Quadrant 1 (Top-Left)	246
	Quadrant 2 (Top-Right)	0
	Quadrant 3 (Bottom-Left)	8
	Quadrant 4 (Bottom-Right)	3

The diagram also includes a legend for the traffic flow directions:

- Westbound: Indicated by a blue arrow pointing left.
- Eastbound: Indicated by a red arrow pointing right.

The intersection is labeled "Hillspborough Blvd" at the top. The diagram is divided into four quadrants, each representing a different traffic flow direction. The data is presented in a table format, with the total volume for each direction and the volume for each of the four quadrants.

Westbound

Signal	(8-13)	(4-7)	(1-3)
0	2	26	
0	0	29	
0	6	159	
0	0	0	

Signal	(8-13)	(4-7)	(1-3)
0	8	214	
0	3	243	

Timeline (Seconds):

- 0
- 165
- 0
- 222
- 246
- Total

[illegible]

0	8	214
0	3	243

Total

 (8-13) (4-7) (1-3)

Northbound

S Cranberry Blvd (South)

The diagram illustrates a 1D lattice with two particles (represented by black squares) and arrows indicating movement. The lattice is divided into two regions by a vertical line. The left region has a particle at site 0, and the right region has a particle at site 0. Arrows indicate movement from site 0 to site 1 and from site 0 to site -1. Below the lattice is a table showing the state of the system.

	↓	↑	↺	↻	↑	↻
Total	480	712	0	55	442	215

(8-13)	0	0	0	0
(4-7)	9	9	5	3
(1-3)	471	703	54	437

2023 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL
 CATEGORY: 0100 COUNTYWIDE

WEEK	DATES	SF	MOCF: 0.90 PSCF
1	01/01/2023 - 01/07/2023	1.00	1.11
2	01/08/2023 - 01/14/2023	1.00	1.11
3	01/15/2023 - 01/21/2023	1.00	1.11
* 4	01/22/2023 - 01/28/2023	0.97	1.08
* 5	01/29/2023 - 02/04/2023	0.94	1.04
* 6	02/05/2023 - 02/11/2023	0.90	1.00
* 7	02/12/2023 - 02/18/2023	0.87	0.97
* 8	02/19/2023 - 02/25/2023	0.87	0.97
* 9	02/26/2023 - 03/04/2023	0.87	0.97
*10	03/05/2023 - 03/11/2023	0.87	0.97
*11	03/12/2023 - 03/18/2023	0.86	0.96
*12	03/19/2023 - 03/25/2023	0.88	0.98
*13	03/26/2023 - 04/01/2023	0.90	1.00
*14	04/02/2023 - 04/08/2023	0.92	1.02
*15	04/09/2023 - 04/15/2023	0.94	1.04
*16	04/16/2023 - 04/22/2023	0.96	1.07
17	04/23/2023 - 04/29/2023	0.98	1.09
18	04/30/2023 - 05/06/2023	1.01	1.12
19	05/07/2023 - 05/13/2023	1.03	1.14
20	05/14/2023 - 05/20/2023	1.05	1.17
21	05/21/2023 - 05/27/2023	1.06	1.18
22	05/28/2023 - 06/03/2023	1.06	1.18
23	06/04/2023 - 06/10/2023	1.07	1.19
24	06/11/2023 - 06/17/2023	1.07	1.19
25	06/18/2023 - 06/24/2023	1.07	1.19
26	06/25/2023 - 07/01/2023	1.07	1.19
27	07/02/2023 - 07/08/2023	1.07	1.19
28	07/09/2023 - 07/15/2023	1.06	1.18
29	07/16/2023 - 07/22/2023	1.07	1.19
30	07/23/2023 - 07/29/2023	1.08	1.20
31	07/30/2023 - 08/05/2023	1.08	1.20
32	08/06/2023 - 08/12/2023	1.09	1.21
33	08/13/2023 - 08/19/2023	1.09	1.21
34	08/20/2023 - 08/26/2023	1.09	1.21
35	08/27/2023 - 09/02/2023	1.08	1.20
36	09/03/2023 - 09/09/2023	1.08	1.20
37	09/10/2023 - 09/16/2023	1.07	1.19
38	09/17/2023 - 09/23/2023	1.06	1.18
39	09/24/2023 - 09/30/2023	1.05	1.17
40	10/01/2023 - 10/07/2023	1.03	1.14
41	10/08/2023 - 10/14/2023	1.02	1.13
42	10/15/2023 - 10/21/2023	1.01	1.12
43	10/22/2023 - 10/28/2023	1.00	1.11
44	10/29/2023 - 11/04/2023	0.99	1.10
45	11/05/2023 - 11/11/2023	0.98	1.09
46	11/12/2023 - 11/18/2023	0.97	1.08
47	11/19/2023 - 11/25/2023	0.98	1.09
48	11/26/2023 - 12/02/2023	0.99	1.10
49	12/03/2023 - 12/09/2023	0.99	1.10
50	12/10/2023 - 12/16/2023	1.00	1.11
51	12/17/2023 - 12/23/2023	1.00	1.11
52	12/24/2023 - 12/30/2023	1.00	1.11
53	12/31/2023 - 12/31/2023	1.00	1.11

* PEAK SEASON

09-MAR-2024 18:41:37

830UPD

1_0100_PKSEASON.TXT

APPENDIX D:
Intersection Analyses Worksheets

Existing Conditions

Cranberry Commons
1: S Cranberry Blvd & US 41

2025 Existing AM
Timing Plan: AM Peak Hour

												
Lane Group	SEU	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	3	162	951	104	106	1147	77	113	46	129	104	386
Future Volume (vph)	3	162	951	104	106	1147	77	113	46	129	104	386
Lane Group Flow (vph)	0	170	980	107	122	1182	79	116	150	133	107	398
Turn Type	custom	Prot	NA	Perm	Prot	NA	Perm	pm+pt	NA	pm+pt	NA	Perm
Protected Phases		5	2		1	6		3	8	7	4	
Permitted Phases	5			2			6	8		4		4
Detector Phase	5	5	2	2	1	6	6	3	8	7	4	4
Switch Phase												
Minimum Initial (s)	5.0	5.0	20.0	20.0	5.0	20.0	20.0	5.0	7.0	5.0	7.0	7.0
Minimum Split (s)	13.6	13.6	27.6	27.6	13.0	27.6	27.6	12.5	14.5	12.5	25.5	25.5
Total Split (s)	33.0	33.0	73.0	73.0	29.0	69.0	69.0	17.0	26.0	22.0	31.0	31.0
Total Split (%)	22.0%	22.0%	48.7%	48.7%	19.3%	46.0%	46.0%	11.3%	17.3%	14.7%	20.7%	20.7%
Yellow Time (s)	5.6	5.6	5.6	5.6	5.6	5.6	5.6	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	3.0	3.0	2.0	2.0	2.4	2.0	2.0	3.0	3.0	3.0	3.0	3.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		8.6	7.6	7.6	8.0	7.6	7.6	7.5	7.5	7.5	7.5	7.5
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	C-Min	C-Min	None	C-Min	C-Min	None	None	None	None	None
v/c Ratio		3.62	0.39	0.13	0.68	0.68	0.12	0.44	0.67	0.53	0.51	0.89
Control Delay (s/veh)		Error	25.3	1.6	83.0	43.1	0.4	51.5	53.0	53.5	69.7	39.2
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)		Error	25.3	1.6	83.0	43.1	0.4	51.5	53.0	53.5	69.7	39.2
Queue Length 50th (ft)		~300	222	0	117	360	0	91	85	105	100	98
Queue Length 95th (ft)		#451	284	14	183	374	0	147	162	165	158	#234
Internal Link Dist (ft)			813			1018			411		404	
Turn Bay Length (ft)		700		365	365		410	120		215		245
Base Capacity (vph)		47	2525	808	237	2041	733	264	263	265	289	501
Starvation Cap Reductn		0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn		0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn		0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio		3.62	0.39	0.13	0.51	0.58	0.11	0.44	0.57	0.50	0.37	0.79

Intersection Summary

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 0 (0%), Referenced to phase 2:SET and 6:NWT, Start of Yellow

Natural Cycle: 90

Control Type: Actuated-Coordinated

~ 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.

Splits and Phases: 1: S Cranberry Blvd & US 41

 Ø1	 Ø2 (R)	 Ø3	 Ø4
29 s	73 s	17 s	31 s
 Ø5	 Ø6 (R)	 Ø7	 Ø8
33 s	69 s	22 s	26 s

Cranberry Commons
1: S Cranberry Blvd & US 41

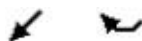
2025 Existing AM
Timing Plan: AM Peak Hour

																								
Movement	SEU	SEL	SET	SER	NWU	NWL	NWT	NWR	NEL	NET	NER	SWL												
Lane Configurations			  					  			 													
Traffic Volume (veh/h)	3	162	951	104	13	106	1147	77	113	46	100	129												
Future Volume (veh/h)	3	162	951	104	13	106	1147	77	113	46	100	129												
Initial Q (Qb), veh		0	0	0		0	0	0	0	0	0	0												
Lane Width Adj.		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00												
Ped-Bike Adj(A_pbT)		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												
Work Zone On Approach		No				No				No														
Adj Sat Flow, veh/h/ln		1811	1856	1752		1796	1841	1870	1856	1870	1870	1900												
Adj Flow Rate, veh/h		167	980	83		109	1182	49	116	47	58	133												
Peak Hour Factor		0.97	0.97	0.97		0.97	0.97	0.97	0.97	0.97	0.97	0.97												
Percent Heavy Veh, %		6	3	10		7	4	2	3	2	2	0												
Cap, veh/h		190	2855	837		131	2642	833	203	58	71	213												
Arrive On Green		0.11	0.56	0.56		0.08	0.53	0.53	0.06	0.08	0.08	0.08												
Sat Flow, veh/h		1725	5066	1485		1711	5025	1585	1767	761	940	1810												
Grp Volume(v), veh/h		167	980	83		109	1182	49	116	0	105	133												
Grp Sat Flow(s),veh/h/ln		1725	1689	1485		1711	1675	1585	1767	0	1701	1810												
Q Serve(g_s), s		14.3	15.7	3.9		9.4	21.9	2.3	9.1	0.0	9.1	10.0												
Cycle Q Clear(g_c), s		14.3	15.7	3.9		9.4	21.9	2.3	9.1	0.0	9.1	10.0												
Prop In Lane		1.00		1.00		1.00		1.00	1.00		0.55	1.00												
Lane Grp Cap(c), veh/h		190	2855	837		131	2642	833	203	0	129	213												
V/C Ratio(X)		0.88	0.34	0.10		0.83	0.45	0.06	0.57	0.00	0.82	0.62												
Avail Cap(c_a), veh/h		281	2855	837		240	2642	833	203	0	210	242												
HCM Platoon Ratio		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00												
Upstream Filter(I)		1.00	1.00	1.00		1.00	1.00	1.00	1.00	0.00	1.00	1.00												
Uniform Delay (d), s/veh		65.7	17.7	15.1		68.3	22.1	17.4	59.6	0.0	68.3	58.0												
Incr Delay (d2), s/veh		18.6	0.3	0.2		12.8	0.6	0.1	3.8	0.0	11.8	4.0												
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												
%ile BackOfQ(95%),veh/ln		11.6	10.0	2.4		8.0	13.2	1.5	7.6	0.0	7.8	8.4												
Unsig. Movement Delay, s/veh																								
LnGrp Delay(d), s/veh		84.3	18.0	15.4		81.1	22.6	17.5	63.5	0.0	80.1	62.0												
LnGrp LOS		F	B	B		F	C	B	E		F	E												
Approach Vol, veh/h		1230				1340				221														
Approach Delay, s/veh		26.9				27.2				71.3														
Approach LOS		C				C				E														
Timer - Assigned Phs	1	2	3	4	5	6	7	8																
Phs Duration (G+Y+Rc), s	19.5	92.1	17.0	21.4	25.1	86.5	19.6	18.8																
Change Period (Y+Rc), s	8.0	7.6	7.5	7.5	8.6	7.6	7.5	7.5																
Max Green Setting (Gmax), s	21.0	65.4	9.5	23.5	24.4	61.4	14.5	18.5																
Max Q Clear Time (g_c+I1), s	11.4	17.7	11.1	12.4	16.3	23.9	12.0	11.1																
Green Ext Time (p_c), s	0.2	17.0	0.0	0.6	0.2	18.9	0.1	0.2																
Intersection Summary																								
HCM 7th Control Delay, s/veh			34.8																					
HCM 7th LOS			C																					
Notes																								
User approved ignoring U-Turning movement.																								

HCM 7th Signalized Intersection Summary
03/14/2025

Cranberry Commons
1: S Cranberry Blvd & US 41

2025 Existing AM
Timing Plan: AM Peak Hour



Movement	SWT	SWR
Lane Configurations	↑	↑
Traffic Volume (veh/h)	104	386
Future Volume (veh/h)	104	386
Initial Q (Qb), veh	0	0
Lane Width Adj.	1.00	1.00
Ped-Bike Adj(A_pbT)		1.00
Parking Bus, Adj	1.00	1.00
Work Zone On Approach	No	
Adj Sat Flow, veh/h/ln	1856	1870
Adj Flow Rate, veh/h	107	113
Peak Hour Factor	0.97	0.97
Percent Heavy Veh, %	3	2
Cap, veh/h	172	147
Arrive On Green	0.09	0.09
Sat Flow, veh/h	1856	1585
Grp Volume(v), veh/h	107	113
Grp Sat Flow(s),veh/h/ln	1856	1585
Q Serve(g_s), s	8.3	10.4
Cycle Q Clear(g_c), s	8.3	10.4
Prop In Lane		1.00
Lane Grp Cap(c), veh/h	172	147
V/C Ratio(X)	0.62	0.77
Avail Cap(c_a), veh/h	291	248
HCM Platoon Ratio	1.00	1.00
Upstream Filter(I)	1.00	1.00
Uniform Delay (d), s/veh	65.5	66.5
Incr Delay (d2), s/veh	3.6	8.2
Initial Q Delay(d3), s/veh	0.0	0.0
%ile BackOfQ(95%),veh/ln	7.3	8.0
Unsig. Movement Delay, s/veh		
LnGrp Delay(d), s/veh	69.2	74.6
LnGrp LOS	E	E
Approach Vol, veh/h	353	
Approach Delay, s/veh	68.2	
Approach LOS	E	
Timer - Assigned Phs		

Cranberry Commons
2: Huge Blvd & US 41

2025 Existing AM
Timing Plan: AM Peak Hour

Intersection															
Int Delay, s/veh	1														
Movement	SEU	SEL	SET	SER	NWU	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR	
Lane Configurations		2	↑↑↑			2	↑↑↑				↑			↑	
Traffic Vol, veh/h	6	31	1140	9	5	25	1267	17	0	0	28	0	0	56	
Future Vol, veh/h	6	31	1140	9	5	25	1267	17	0	0	28	0	0	56	
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Sign Control	Free	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop	
RT Channelized	-	-	-	None	-	-	-	None	-	-	None	-	-	None	
Storage Length	-	400	-	-	-	400	-	-	-	-	0	-	-	0	
Veh in Median Storage, #	-	-	0	-	-	-	0	-	-	0	-	-	0	-	
Grade, %	-	-	0	-	-	-	0	-	-	0	-	-	0	-	
Peak Hour Factor	99	99	99	99	99	99	99	99	99	99	99	99	99	99	
Heavy Vehicles, %	0	0	3	0	0	12	4	18	0	0	0	0	0	0	
Mvmt Flow	6	31	1152	9	5	25	1280	17	0	0	28	0	0	57	
Major/Minor	Major1			Major2				Minor1			Minor2				
Conflicting Flow All	947	1297	0	0	847	1161	0	0	-	-	580	-	-	648	
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Critical Hdwy	5.6	5.3	-	-	5.6	5.54	-	-	-	-	7.1	-	-	7.1	
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Follow-up Hdwy	2.3	3.1	-	-	2.3	3.22	-	-	-	-	3.9	-	-	3.9	
Pot Cap-1 Maneuver	478	286	-	-	543	301	-	-	0	0	396	0	0	358	
Stage 1	-	-	-	-	-	-	-	-	0	0	-	0	0	-	
Stage 2	-	-	-	-	-	-	-	-	0	0	-	0	0	-	
Platoon blocked, %			-	-			-	-							
Mov Cap-1 Maneuver	300	300	-	-	323	323	-	-	-	-	396	-	-	358	
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Approach	SE				NW				NE			SW			
HCM Control Delay, s/v	0.58				0.4				14.79			16.95			
HCM LOS									B			C			
Minor Lane/Major Mvmt	NELn1	NWL	NWT	NWR	SEL	SET	SERSWLn1								
Capacity (veh/h)	396	323	-	-	300	-	-	358							
HCM Lane V/C Ratio	0.071	0.094	-	-	0.125	-	-	0.158							
HCM Control Delay (s/veh)	14.8	17.3	-	-	18.7	-	-	16.9							
HCM Lane LOS	B	C	-	-	C	-	-	C							
HCM 95th %tile Q(veh)	0.2	0.3	-	-	0.4	-	-	0.6							

Cranberry Commons
3: S Cranberry Blvd & Hillsborough Blvd

2025 Existing AM
Timing Plan: AM Peak Hour

Intersection												
Int Delay, s/veh	8.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕	↕	↕		↕	↕	
Traffic Vol, veh/h	22	14	28	134	19	21	46	199	77	24	468	41
Future Vol, veh/h	22	14	28	134	19	21	46	199	77	24	468	41
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	120	75	-	-	50	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	9	7	4	7	0	10	13	2	0	4	1	2
Mvmt Flow	22	14	29	137	19	21	47	203	79	24	478	42

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	854	923	498	870	905	242	519	0	0	282	0	0
Stage 1	547	547	-	336	336	-	-	-	-	-	-	-
Stage 2	307	376	-	534	568	-	-	-	-	-	-	-
Critical Hdwy	7.19	6.57	6.24	7.17	6.5	6.3	4.23	-	-	4.14	-	-
Critical Hdwy Stg 1	6.19	5.57	-	6.17	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.19	5.57	-	6.17	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.581	4.063	3.336	3.563	4	3.39	2.317	-	-	2.236	-	-
Pot Cap-1 Maneuver	271	265	568	266	279	777	993	-	-	1269	-	-
Stage 1	509	509	-	668	645	-	-	-	-	-	-	-
Stage 2	688	608	-	521	509	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	229	247	568	224	260	777	993	-	-	1269	-	-
Mov Cap-2 Maneuver	229	247	-	224	260	-	-	-	-	-	-	-
Stage 1	499	499	-	636	615	-	-	-	-	-	-	-
Stage 2	618	579	-	471	500	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v19.29		44.72	1.26	0.36
HCM LOS	C	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1WBLn2	SBL	SBT	SBR
Capacity (veh/h)	993	-	-	317 228 777	1269	-	-
HCM Lane V/C Ratio	0.047	-	-	0.206 0.686 0.028	0.019	-	-
HCM Control Delay (s/veh)	8.8	-	-	19.3 49.5 9.8	7.9	-	-
HCM Lane LOS	A	-	-	C E A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.8 4.4 0.1	0.1	-	-

Cranberry Commons
1: S Cranberry Blvd & US 41

2025 Existing PM
Timing Plan: PM Peak Hour

												
Lane Group	SEU	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	6	450	1630	119	152	1243	142	123	114	95	84	301
Future Volume (vph)	6	450	1630	119	152	1243	142	123	114	95	84	301
Lane Group Flow (vph)	0	480	1716	125	184	1308	149	129	192	100	88	317
Turn Type	custom	Prot	NA	Perm	Prot	NA	Perm	pm+pt	NA	pm+pt	NA	Perm
Protected Phases		5	2		1	6		3	8	7	4	
Permitted Phases	5			2			6	8		4		4
Detector Phase	5	5	2	2	1	6	6	3	8	7	4	4
Switch Phase												
Minimum Initial (s)	5.0	5.0	20.0	20.0	5.0	20.0	20.0	5.0	7.0	5.0	7.0	7.0
Minimum Split (s)	13.6	13.6	27.6	27.6	13.0	27.6	27.6	12.5	25.5	12.5	25.5	25.5
Total Split (s)	66.0	66.0	92.0	92.0	35.0	61.0	61.0	19.0	34.0	19.0	34.0	34.0
Total Split (%)	36.7%	36.7%	51.1%	51.1%	19.4%	33.9%	33.9%	10.6%	18.9%	10.6%	18.9%	18.9%
Yellow Time (s)	5.6	5.6	5.6	5.6	5.6	5.6	5.6	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	3.0	3.0	2.0	2.0	2.4	2.0	2.0	3.0	3.0	3.0	3.0	3.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		8.6	7.6	7.6	8.0	7.6	7.6	7.5	7.5	7.5	7.5	7.5
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	C-Min	C-Min	None	C-Min	C-Min	None	None	None	None	None
v/c Ratio		11.71	0.60	0.14	0.81	0.86	0.25	0.48	0.83	0.55	0.38	0.67
Control Delay (s/veh)		Error	32.6	4.1	102.7	66.6	4.1	63.9	99.0	67.8	76.2	13.8
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)		Error	32.6	4.1	102.7	66.6	4.1	63.9	99.0	67.8	76.2	13.8
Queue Length 50th (ft)		~1088	480	0	214	538	0	127	208	97	96	0
Queue Length 95th (ft)		#1333	559	39	305	600	36	192	302	154	156	101
Internal Link Dist (ft)			813			1018			411		404	
Turn Bay Length (ft)		700		365	365		410	120		215		245
Base Capacity (vph)		41	2883	885	266	1523	596	272	269	186	276	503
Starvation Cap Reductn		0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn		0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn		0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio		11.71	0.60	0.14	0.69	0.86	0.25	0.47	0.71	0.54	0.32	0.63

Intersection Summary

Cycle Length: 180

Actuated Cycle Length: 180

Offset: 157 (87%), Referenced to phase 2:SET and 6:NWT, Start of Yellow

Natural Cycle: 100

Control Type: Actuated-Coordinated

~ 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.

Splits and Phases: 1: S Cranberry Blvd & US 41

 Ø1	 Ø2 (R)	 Ø3	 Ø4
35 s	92 s	19 s	34 s
 Ø5	 Ø6 (R)	 Ø7	 Ø8
66 s	61 s	19 s	34 s

Cranberry Commons
1: S Cranberry Blvd & US 41

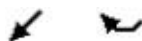
2025 Existing PM
Timing Plan: PM Peak Hour

												
Movement	SEU	SEL	SET	SER	NWU	NWL	NWT	NWR	NEL	NET	NER	SWL
Lane Configurations												
Traffic Volume (veh/h)	6	450	1630	119	23	152	1243	142	123	114	68	95
Future Volume (veh/h)	6	450	1630	119	23	152	1243	142	123	114	68	95
Initial Q (Qb), veh		0	0	0		0	0	0	0	0	0	0
Lane Width Adj.		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)		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
Work Zone On Approach		No				No				No		
Adj Sat Flow, veh/h/ln		1885	1870	1885		1900	1885	1885	1885	1841	1900	1870
Adj Flow Rate, veh/h		474	1716	98		160	1308	75	129	120	65	100
Peak Hour Factor		0.95	0.95	0.95		0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %		1	2	1		0	1	1	1	4	0	2
Cap, veh/h		496	3095	881		181	1913	594	243	133	72	163
Arrive On Green		0.28	0.55	0.55		0.10	0.37	0.37	0.06	0.12	0.12	0.06
Sat Flow, veh/h		1795	5611	1598		1810	5147	1598	1795	1123	608	1781
Grp Volume(v), veh/h		474	1716	98		160	1308	75	129	0	185	100
Grp Sat Flow(s),veh/h/ln		1795	1870	1598		1810	1716	1598	1795	0	1731	1781
Q Serve(g_s), s		46.7	35.6	5.3		15.7	38.5	5.6	11.4	0.0	19.0	8.8
Cycle Q Clear(g_c), s		46.7	35.6	5.3		15.7	38.5	5.6	11.4	0.0	19.0	8.8
Prop In Lane		1.00		1.00		1.00		1.00	1.00		0.35	1.00
Lane Grp Cap(c), veh/h		496	3095	881		181	1913	594	243	0	206	163
V/C Ratio(X)		0.96	0.55	0.11		0.89	0.68	0.13	0.53	0.00	0.90	0.61
Avail Cap(c_a), veh/h		573	3095	881		271	1913	594	243	0	255	170
HCM Platoon Ratio		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	1.00		1.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh		64.0	26.1	19.3		80.0	47.6	37.3	65.6	0.0	78.3	66.0
Incr Delay (d2), s/veh		25.1	0.7	0.3		19.9	2.0	0.4	2.2	0.0	27.8	6.1
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
%ile BackOfQ(95%),veh/ln		32.6	22.3	3.7		13.0	23.4	4.1	9.2	0.0	15.2	7.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh		89.2	26.8	19.5		99.9	49.7	37.7	67.8	0.0	106.0	72.0
LnGrp LOS		F	C	B		F	D	D	E		F	E
Approach Vol, veh/h		2288				1543				314		
Approach Delay, s/veh		39.4				54.3				90.3		
Approach LOS		D				D				F		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	26.0	106.9	19.0	28.2	58.4	74.5	18.3	28.9				
Change Period (Y+Rc), s	8.0	7.6	7.5	7.5	8.6	7.6	7.5	7.5				
Max Green Setting (Gmax), s	27.0	84.4	11.5	26.5	57.4	53.4	11.5	26.5				
Max Q Clear Time (g_c+I1), s	17.7	37.6	13.4	9.9	48.7	40.5	10.8	21.0				
Green Ext Time (p_c), s	0.3	33.5	0.0	0.5	1.0	9.8	0.0	0.4				
Intersection Summary												
HCM 7th Control Delay, s/veh				50.3								
HCM 7th LOS				D								
Notes												
User approved ignoring U-Turning movement.												

HCM 7th Signalized Intersection Summary
03/14/2025

Cranberry Commons
1: S Cranberry Blvd & US 41

2025 Existing PM
Timing Plan: PM Peak Hour



Movement	SWT	SWR
Lane Configurations	↑	↑
Traffic Volume (veh/h)	84	301
Future Volume (veh/h)	84	301
Initial Q (Qb), veh	0	0
Lane Width Adj.	1.00	1.00
Ped-Bike Adj(A_pbT)		1.00
Parking Bus, Adj	1.00	1.00
Work Zone On Approach	No	
Adj Sat Flow, veh/h/ln	1885	1870
Adj Flow Rate, veh/h	88	75
Peak Hour Factor	0.95	0.95
Percent Heavy Veh, %	1	2
Cap, veh/h	216	182
Arrive On Green	0.11	0.11
Sat Flow, veh/h	1885	1585
Grp Volume(v), veh/h	88	75
Grp Sat Flow(s),veh/h/ln	1885	1585
Q Serve(g_s), s	7.8	7.9
Cycle Q Clear(g_c), s	7.8	7.9
Prop In Lane		1.00
Lane Grp Cap(c), veh/h	216	182
V/C Ratio(X)	0.41	0.41
Avail Cap(c_a), veh/h	278	233
HCM Platoon Ratio	1.00	1.00
Upstream Filter(l)	1.00	1.00
Uniform Delay (d), s/veh	74.0	74.0
Incr Delay (d2), s/veh	1.2	1.5
Initial Q Delay(d3), s/veh	0.0	0.0
%ile BackOfQ(95%),veh/ln	6.9	5.9
Unsig. Movement Delay, s/veh		
LnGrp Delay(d), s/veh	75.2	75.5
LnGrp LOS	E	E
Approach Vol, veh/h	263	
Approach Delay, s/veh	74.1	
Approach LOS	E	
Timer - Assigned Phs		

Cranberry Commons
2: Huge Blvd & US 41

2025 Existing PM
Timing Plan: PM Peak Hour

Intersection														
Int Delay, s/veh	2.2													
Movement	SEU	SEL	SET	SER	NWU	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↔ ↑↑↑	↔ ↑↑↑			↔ ↑↑↑	↔ ↑↑↑				↗			↗
Traffic Vol, veh/h	14	82	1709	10	4	44	1522	10	0	0	42	0	0	53
Future Vol, veh/h	14	82	1709	10	4	44	1522	10	0	0	42	0	0	53
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	-	400	-	-	-	400	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	-	0	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-	0	-	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	2	2	0	0	0	1	10	0	0	0	0	0	6
Mvmt Flow	15	86	1799	11	4	46	1602	11	0	0	44	0	0	56
Major/Minor	Major1			Major2			Minor1			Minor2				
Conflicting Flow All	1177	1613	0	0	1321	1809	0	0	-	-	905	-	-	806
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	5.6	5.34	-	-	5.6	5.3	-	-	-	-	7.1	-	-	7.22
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.3	3.12	-	-	2.3	3.1	-	-	-	-	3.9	-	-	3.96
Pot Cap-1 Maneuver	357	196	-	-	297	160	-	-	0	0	243	0	0	272
Stage 1	-	-	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %			-	-			-	-						
Mov Cap-1 Maneuver	205	205	-	-	164	164	-	-	-	-	243	-	-	272
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Approach	SE				NW				NE			SW		
HCM Control Delay, s/v	2.04				1.1				23.07			21.61		
HCM LOS									C			C		
Minor Lane/Major Mvmt	NELn1	NWL	NWT	NWR	SEL	SET	SERSWLn1							
Capacity (veh/h)	243	164	-	-	205	-	-	272						
HCM Lane V/C Ratio	0.182	0.307	-	-	0.493	-	-	0.205						
HCM Control Delay (s/veh)	23.1	36.3	-	-	38.5	-	-	21.6						
HCM Lane LOS	C	E	-	-	E	-	-	C						
HCM 95th %tile Q(veh)	0.6	1.2	-	-	2.5	-	-	0.8						

Cranberry Commons
3: S Cranberry Blvd & Hillsborough Blvd

2025 Existing PM
Timing Plan: PM Peak Hour

Intersection												
Int Delay, s/veh	50.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕	↕	↕		↕	↕	
Traffic Vol, veh/h	22	20	15	165	29	28	55	442	215	11	300	17
Future Vol, veh/h	22	20	15	165	29	28	55	442	215	11	300	17
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	120	75	-	-	50	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	5	0	0	4	0	7	2	1	0	0	1	0
Mvmt Flow	25	23	17	190	33	32	63	508	247	13	345	20

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	1031	1261	355	1140	1148	632	364	0	0	755	0	0
Stage 1	380	380	-	758	758	-	-	-	-	-	-	-
Stage 2	651	882	-	382	390	-	-	-	-	-	-	-
Critical Hdwy	7.15	6.5	6.2	7.14	6.5	6.27	4.12	-	-	4.1	-	-
Critical Hdwy Stg 1	6.15	5.5	-	6.14	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.15	5.5	-	6.14	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.545	4	3.3	3.536	4	3.363	2.218	-	-	2.2	-	-
Pot Cap-1 Maneuver	209	172	694	~ 177	201	472	1194	-	-	864	-	-
Stage 1	636	617	-	396	418	-	-	-	-	-	-	-
Stage 2	452	367	-	637	611	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	151	160	694	~ 139	187	472	1194	-	-	864	-	-
Mov Cap-2 Maneuver	151	160	-	~ 139	187	-	-	-	-	-	-	-
Stage 1	627	608	-	375	396	-	-	-	-	-	-	-
Stage 2	366	348	-	589	602	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v32.53		291.66	0.63	0.31
HCM LOS	D	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1194	-	-	195 144 472	864	-	-
HCM Lane V/C Ratio	0.053	-	-	0.336 1.544 0.068	0.015	-	-
HCM Control Delay (s/veh)	8.2	-	-	32.5\$ 331.8 13.2	9.2	-	-
HCM Lane LOS	A	-	-	D F B	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	1.4 15.3 0.2	0	-	-

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

Background Conditions

Cranberry Commons
1: S Cranberry Blvd & US 41

2026 Background AM

Timing Plan: AM Peak Hour

											
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	SWL	SWT	SWR
Lane Configurations											
Traffic Volume (vph)	168	970	106	108	1170	79	115	47	132	106	394
Future Volume (vph)	168	970	106	108	1170	79	115	47	132	106	394
Lane Group Flow (vph)	173	1000	109	124	1206	81	119	153	136	109	406
Turn Type	Prot	NA	Perm	Prot	NA	Perm	pm+pt	NA	pm+pt	NA	pt+ov
Protected Phases	5	2		1	6		3	8	7	4	4 5
Permitted Phases			2			6	8		4		
Detector Phase	5	2	2	1	6	6	3	8	7	4	4 5
Switch Phase											
Minimum Initial (s)	5.0	20.0	20.0	5.0	20.0	20.0	5.0	7.0	5.0	7.0	
Minimum Split (s)	13.6	27.6	27.6	13.0	27.6	27.6	12.5	14.5	12.5	25.5	
Total Split (s)	33.0	73.0	73.0	29.0	69.0	69.0	17.0	26.0	22.0	31.0	
Total Split (%)	22.0%	48.7%	48.7%	19.3%	46.0%	46.0%	11.3%	17.3%	14.7%	20.7%	
Yellow Time (s)	5.6	5.6	5.6	5.6	5.6	5.6	4.5	4.5	4.5	4.5	
All-Red Time (s)	3.0	2.0	2.0	2.4	2.0	2.0	3.0	3.0	3.0	3.0	
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)	8.6	7.6	7.6	8.0	7.6	7.6	7.5	7.5	7.5	7.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	C-Min	C-Min	None	C-Min	C-Min	None	None	None	None	
v/c Ratio	0.77	0.40	0.14	0.69	0.52	0.10	0.44	0.67	0.54	0.49	0.43
Control Delay (s/veh)	84.9	25.8	1.7	83.4	30.7	0.2	51.5	52.8	53.3	68.6	28.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	84.9	25.8	1.7	83.4	30.7	0.2	51.5	52.8	53.3	68.6	28.3
Queue Length 50th (ft)	165	228	0	119	311	0	93	88	107	102	123
Queue Length 95th (ft)	245	291	16	186	383	0	150	167	168	161	160
Internal Link Dist (ft)		813			1018			411		404	
Turn Bay Length (ft)	700		365	365		410	120				
Base Capacity (vph)	277	2483	797	237	2314	812	270	258	270	289	1006
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.62	0.40	0.14	0.52	0.52	0.10	0.44	0.59	0.50	0.38	0.40

Intersection Summary

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 0 (0%), Referenced to phase 2:SET and 6:NWT, Start of Yellow

Natural Cycle: 90

Control Type: Actuated-Coordinated

Splits and Phases: 1: S Cranberry Blvd & US 41

 Ø1	 Ø2 (R)	 Ø3	 Ø4
29 s	73 s	17 s	31 s
 Ø5	 Ø6 (R)	 Ø7	 Ø8
33 s	69 s	22 s	26 s

Cranberry Commons
1: S Cranberry Blvd & US 41

2026 Background AM
Timing Plan: AM Peak Hour

												
Movement	SEL	SET	SER	NWU	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT
Lane Configurations												
Traffic Volume (veh/h)	168	970	106	13	108	1170	79	115	47	102	132	106
Future Volume (veh/h)	168	970	106	13	108	1170	79	115	47	102	132	106
Initial Q (Qb), veh	0	0	0		0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	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
Work Zone On Approach		No			No			No				No
Adj Sat Flow, veh/h/ln	1811	1856	1752		1796	1841	1870	1856	1870	1870	1900	1856
Adj Flow Rate, veh/h	173	1000	85		111	1206	51	119	48	60	136	109
Peak Hour Factor	0.97	0.97	0.97		0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	6	3	10		7	4	2	3	2	2	0	3
Cap, veh/h	196	2590	759		133	2368	747	239	98	122	281	267
Arrive On Green	0.11	0.51	0.51		0.08	0.47	0.47	0.06	0.13	0.13	0.08	0.14
Sat Flow, veh/h	1725	5066	1485		1711	5025	1585	1767	756	945	1810	1856
Grp Volume(v), veh/h	173	1000	85		111	1206	51	119	0	108	136	109
Grp Sat Flow(s),veh/h/ln	1725	1689	1485		1711	1675	1585	1767	0	1700	1810	1856
Q Serve(g_s), s	14.8	18.0	4.5		9.6	25.1	2.6	8.7	0.0	8.9	9.7	8.0
Cycle Q Clear(g_c), s	14.8	18.0	4.5		9.6	25.1	2.6	8.7	0.0	8.9	9.7	8.0
Prop In Lane	1.00		1.00		1.00		1.00	1.00		0.56	1.00	
Lane Grp Cap(c), veh/h	196	2590	759		133	2368	747	239	0	220	281	267
V/C Ratio(X)	0.88	0.39	0.11		0.84	0.51	0.07	0.50	0.00	0.49	0.48	0.41
Avail Cap(c_a), veh/h	281	2590	759		240	2368	747	239	0	220	314	291
HCM Platoon Ratio	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00		1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	65.5	22.3	19.0		68.2	27.6	21.7	52.6	0.0	60.7	51.3	58.4
Incr Delay (d2), s/veh	19.9	0.4	0.3		12.8	0.8	0.2	1.6	0.0	1.7	1.3	1.0
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
%ile BackOfQ(95%),veh/ln	12.0	11.5	2.9		8.1	15.1	1.8	7.1	0.0	7.0	7.9	6.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	85.4	22.8	19.3		81.0	28.4	21.9	54.2	0.0	62.4	52.6	59.4
LnGrp LOS	F	C	B		F	C	C	D		E	D	E
Approach Vol, veh/h		1258				1368			227			651
Approach Delay, s/veh		31.1				32.4			58.1			51.7
Approach LOS		C				C			E			D
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	19.6	84.3	17.0	29.1	25.7	78.3	19.2	26.9				
Change Period (Y+Rc), s	8.0	7.6	7.5	7.5	8.6	7.6	7.5	7.5				
Max Green Setting (Gmax), s	21.0	65.4	9.5	23.5	24.4	61.4	14.5	18.5				
Max Q Clear Time (g_c+I1), s	11.6	20.0	10.7	21.0	16.8	27.1	11.7	10.9				
Green Ext Time (p_c), s	0.2	17.2	0.0	0.6	0.2	18.5	0.1	0.2				
Intersection Summary												
HCM 7th Control Delay, s/veh			37.2									
HCM 7th LOS			D									
Notes												
User approved ignoring U-Turning movement.												

Cranberry Commons
1: S Cranberry Blvd & US 41

2026 Background AM
Timing Plan: AM Peak Hour



Movement	SWR
Lane Configurations	??
Traffic Volume (veh/h)	394
Future Volume (veh/h)	394
Initial Q (Qb), veh	0
Lane Width Adj.	1.00
Ped-Bike Adj(A_pbT)	1.00
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1870
Adj Flow Rate, veh/h	406
Peak Hour Factor	0.97
Percent Heavy Veh, %	2
Cap, veh/h	718
Arrive On Green	0.14
Sat Flow, veh/h	2790
Grp Volume(v), veh/h	406
Grp Sat Flow(s),veh/h/ln	1395
Q Serve(g_s), s	19.0
Cycle Q Clear(g_c), s	19.0
Prop In Lane	1.00
Lane Grp Cap(c), veh/h	718
V/C Ratio(X)	0.57
Avail Cap(c_a), veh/h	754
HCM Platoon Ratio	1.00
Upstream Filter(l)	1.00
Uniform Delay (d), s/veh	48.4
Incr Delay (d2), s/veh	0.9
Initial Q Delay(d3), s/veh	0.0
%ile BackOfQ(95%),veh/ln	10.9
Unsig. Movement Delay, s/veh	
LnGrp Delay(d), s/veh	49.3
LnGrp LOS	D
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	

Cranberry Commons
2: Huge Blvd & US 41

2026 Background AM
Timing Plan: AM Peak Hour

Intersection														
Int Delay, s/veh	1													
Movement	SEU	SEL	SET	SER	NWU	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		3	↑↑↑			3	↑↑↑				↑			↑
Traffic Vol, veh/h	6	32	1163	9	5	26	1292	17	0	0	29	0	0	57
Future Vol, veh/h	6	32	1163	9	5	26	1292	17	0	0	29	0	0	57
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	-	400	-	-	-	400	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	-	0	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-	0	-	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	99	99	99	99	99	99	99	99	99	99	99	99	99	99
Heavy Vehicles, %	0	0	3	0	0	12	4	18	0	0	0	0	0	0
Mvmt Flow	6	32	1175	9	5	26	1305	17	0	0	29	0	0	58
Major/Minor	Major1			Major2				Minor1			Minor2			
Conflicting Flow All	965	1322	0	0	864	1184	0	0	-	-	592	-	-	661
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	5.6	5.3	-	-	5.6	5.54	-	-	-	-	7.1	-	-	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.3	3.1	-	-	2.3	3.22	-	-	-	-	3.9	-	-	3.9
Pot Cap-1 Maneuver	467	278	-	-	531	293	-	-	0	0	389	0	0	351
Stage 1	-	-	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %			-	-			-	-						
Mov Cap-1 Maneuver	291	291	-	-	314	314	-	-	-	-	389	-	-	351
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Approach	SE				NW				NE			SW		
HCM Control Delay, s/v	0.6				0.41				15			17.26		
HCM LOS									C			C		
Minor Lane/Major Mvmt	NELn1	NWL	NWT	NWR	SEL	SET	SERSWLn1							
Capacity (veh/h)	389	314	-	-	291	-	-	351						
HCM Lane V/C Ratio	0.075	0.1	-	-	0.132	-	-	0.164						
HCM Control Delay (s/veh)	15	17.8	-	-	19.2	-	-	17.3						
HCM Lane LOS	C	C	-	-	C	-	-	C						
HCM 95th %tile Q(veh)	0.2	0.3	-	-	0.4	-	-	0.6						

LANE LEVEL OF SERVICE

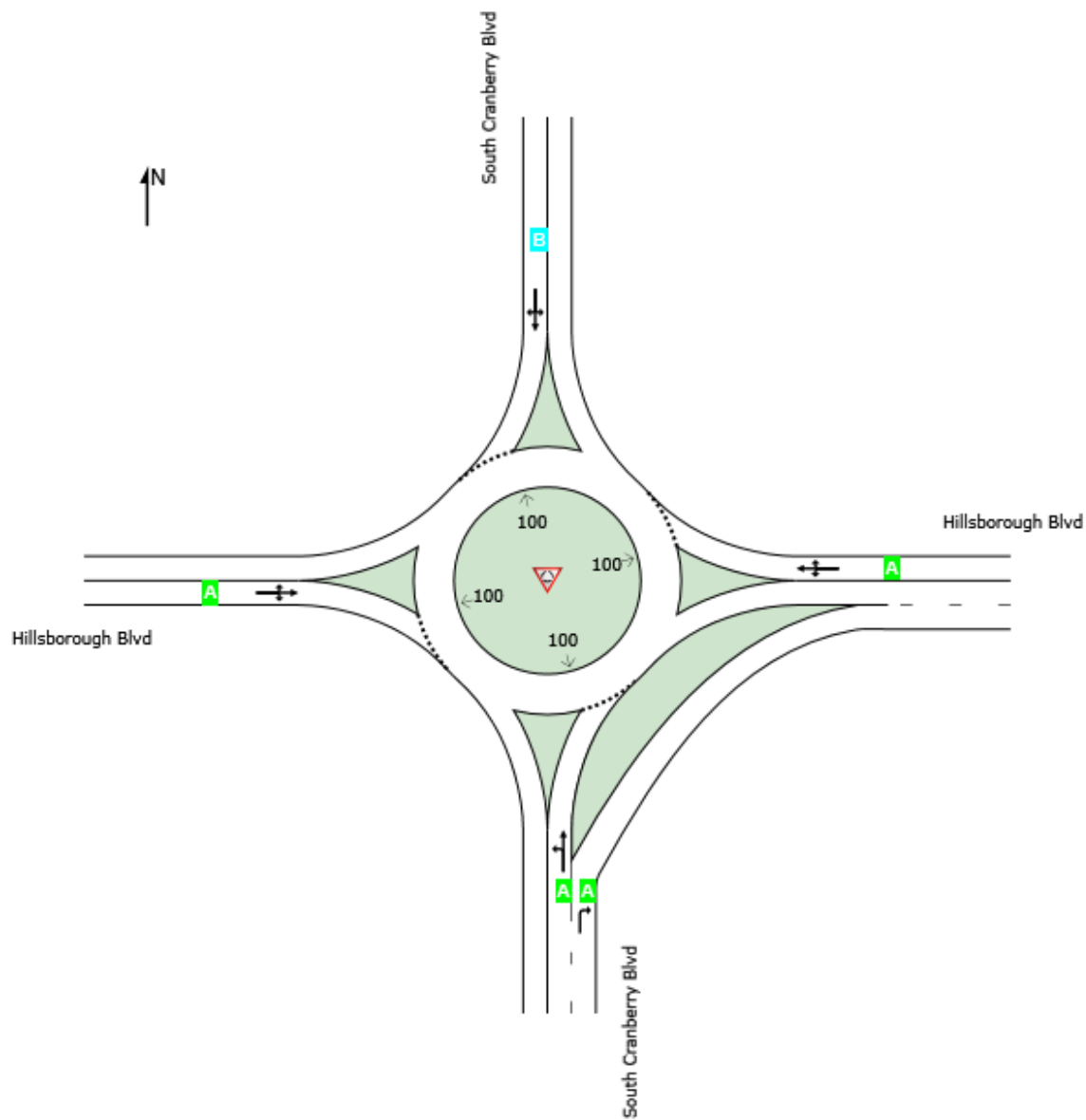
Lane Level of Service

 Site: 1 [2026 Background AM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

Huge Blvd Mixed Use
Site Category: (None)
Roundabout

	Approaches				Intersection
	South	East	North	West	
LOS	A	A	B	A	A



Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

Roundabout LOS Method: Same as Sign Control.

Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.

LOS F will result if $v/c > 1$ irrespective of lane delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

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\Project2.sip9

MOVEMENT SUMMARY

 **Site: 1 [2026 Background AM (Site Folder: General)]**

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

Huge Blvd Mixed Use
Site Category: (None)
Roundabout

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]		[Total HV]					[Veh.]	Dist]				
			veh/h	%	veh/h	%	v/c	sec		veh	ft				mph
South: South Cranberry Blvd															
3	L2	All MCs	51	13.0	51	13.0	0.213	5.2	LOS A	1.0	25.2	0.20	0.08	0.20	32.8
8	T1	All MCs	221	2.0	221	2.0	0.213	4.4	LOS A	1.0	25.2	0.20	0.08	0.20	33.8
18	R2	All MCs	86	0.0	86	0.0	0.051	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	36.7
Approach			358	3.1	358	3.1	0.213	3.5	LOS A	1.0	25.2	0.15	0.06	0.15	34.3
East: Hillsborough Blvd															
1	L2	All MCs	149	7.0	149	7.0	0.207	5.9	LOS A	0.9	23.7	0.47	0.32	0.47	32.3
6	T1	All MCs	21	0.0	21	0.0	0.207	5.2	LOS A	0.9	23.7	0.47	0.32	0.47	33.9
16	R2	All MCs	23	10.0	23	10.0	0.207	6.2	LOS A	0.9	23.7	0.47	0.32	0.47	32.4
Approach			192	6.6	192	6.6	0.207	5.9	LOS A	0.9	23.7	0.47	0.32	0.47	32.5
North: South Cranberry Blvd															
7	L2	All MCs	26	4.0	26	4.0	0.553	10.3	LOS B	4.2	105.0	0.62	0.39	0.65	30.9
4	T1	All MCs	518	1.0	518	1.0	0.553	10.0	LOS B	4.2	105.0	0.62	0.39	0.65	31.6
14	R2	All MCs	46	2.0	46	2.0	0.553	10.1	LOS B	4.2	105.0	0.62	0.39	0.65	31.3
Approach			590	1.2	590	1.2	0.553	10.0	LOS B	4.2	105.0	0.62	0.39	0.65	31.5
West: Hillsborough Blvd															
5	L2	All MCs	24	9.0	24	9.0	0.117	7.9	LOS A	0.4	11.0	0.61	0.55	0.61	22.5
2	T1	All MCs	15	7.0	15	7.0	0.117	7.5	LOS A	0.4	11.0	0.61	0.55	0.61	22.6
12	R2	All MCs	32	4.0	32	4.0	0.117	6.9	LOS A	0.4	11.0	0.61	0.55	0.61	22.6
Approach			71	6.3	71	6.3	0.117	7.3	LOS A	0.4	11.0	0.61	0.55	0.61	22.5
All Vehicles			1211	2.9	1211	2.9	0.553	7.3	LOS A	4.2	105.0	0.46	0.29	0.47	31.7

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stoeline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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\Project2.sip9

Cranberry Commons
1: S Cranberry Blvd & US 41

2026 Background PM

Timing Plan: PM Peak Hour

											
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	SWL	SWT	SWR
Lane Configurations											
Traffic Volume (vph)	465	1663	121	155	1268	145	125	116	97	86	307
Future Volume (vph)	465	1663	121	155	1268	145	125	116	97	86	307
Lane Group Flow (vph)	489	1751	127	187	1335	153	132	195	102	91	323
Turn Type	Prot	NA	Perm	Prot	NA	Perm	pm+pt	NA	pm+pt	NA	pt+ov
Protected Phases	5	2		1	6		3	8	7	4	4 5
Permitted Phases			2			6	8		4		
Detector Phase	5	2	2	1	6	6	3	8	7	4	4 5
Switch Phase											
Minimum Initial (s)	5.0	20.0	20.0	5.0	20.0	20.0	5.0	7.0	5.0	7.0	
Minimum Split (s)	13.6	27.6	27.6	13.0	27.6	27.6	12.5	25.5	12.5	25.5	
Total Split (s)	66.0	92.0	92.0	35.0	61.0	61.0	19.0	34.0	19.0	34.0	
Total Split (%)	36.7%	51.1%	51.1%	19.4%	33.9%	33.9%	10.6%	18.9%	10.6%	18.9%	
Yellow Time (s)	5.6	5.6	5.6	5.6	5.6	5.6	4.5	4.5	4.5	4.5	
All-Red Time (s)	3.0	2.0	2.0	2.4	2.0	2.0	3.0	3.0	3.0	3.0	
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)	8.6	7.6	7.6	8.0	7.6	7.6	7.5	7.5	7.5	7.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	C-Min	C-Min	None	C-Min	C-Min	None	None	None	None	
v/c Ratio	0.93	0.61	0.14	0.82	0.75	0.23	0.49	0.84	0.56	0.39	0.24
Control Delay (s/veh)	86.4	33.2	4.1	103.4	57.0	4.4	64.3	99.4	68.5	76.3	16.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	86.4	33.2	4.1	103.4	57.0	4.4	64.3	99.4	68.5	76.3	16.4
Queue Length 50th (ft)	552	498	0	218	535	0	130	212	98	100	72
Queue Length 95th (ft)	#739	575	40	310	616	41	195	307	155	161	103
Internal Link Dist (ft)		813			1018			411		404	
Turn Bay Length (ft)	700		365	365		410	120				
Base Capacity (vph)	569	2871	883	266	1769	664	271	269	186	276	1412
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.86	0.61	0.14	0.70	0.75	0.23	0.49	0.72	0.55	0.33	0.23

Intersection Summary

Cycle Length: 180

Actuated Cycle Length: 180

Offset: 157 (87%), Referenced to phase 2:SET and 6:NWT, Start of Yellow

Natural Cycle: 120

Control Type: Actuated-Coordinated

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

Queue shown is maximum after two cycles.

Splits and Phases: 1: S Cranberry Blvd & US 41

 Ø1	 Ø2 (R)	 Ø3	 Ø4
35 s	92 s	19 s	34 s
 Ø5	 Ø6 (R)	 Ø7	 Ø8
66 s	61 s	19 s	34 s

Cranberry Commons
1: S Cranberry Blvd & US 41

2026 Background PM
Timing Plan: PM Peak Hour

												
Movement	SEL	SET	SER	NWU	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT
Lane Configurations												
Traffic Volume (veh/h)	465	1663	121	23	155	1268	145	125	116	69	97	86
Future Volume (veh/h)	465	1663	121	23	155	1268	145	125	116	69	97	86
Initial Q (Qb), veh	0	0	0		0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	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
Work Zone On Approach		No				No			No			No
Adj Sat Flow, veh/h/ln	1885	1870	1885		1900	1885	1885	1885	1841	1900	1870	1885
Adj Flow Rate, veh/h	489	1751	100		163	1335	79	132	122	66	102	91
Peak Hour Factor	0.95	0.95	0.95		0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	1	2	1		0	1	1	1	4	0	2	1
Cap, veh/h	511	3072	875		184	1859	577	243	135	73	164	221
Arrive On Green	0.28	0.55	0.55		0.10	0.36	0.36	0.06	0.12	0.12	0.06	0.12
Sat Flow, veh/h	1795	5611	1598		1810	5147	1598	1795	1124	608	1781	1885
Grp Volume(v), veh/h	489	1751	100		163	1335	79	132	0	188	102	91
Grp Sat Flow(s),veh/h/ln	1795	1870	1598		1810	1716	1598	1795	0	1731	1781	1885
Q Serve(g_s), s	48.2	37.0	5.4		16.0	40.3	6.0	11.5	0.0	19.3	9.0	8.1
Cycle Q Clear(g_c), s	48.2	37.0	5.4		16.0	40.3	6.0	11.5	0.0	19.3	9.0	8.1
Prop In Lane	1.00		1.00		1.00		1.00	1.00		0.35	1.00	
Lane Grp Cap(c), veh/h	511	3072	875		184	1859	577	243	0	208	164	221
V/C Ratio(X)	0.96	0.57	0.11		0.89	0.72	0.14	0.54	0.00	0.90	0.62	0.41
Avail Cap(c_a), veh/h	573	3072	875		271	1859	577	243	0	255	170	278
HCM Platoon Ratio	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00		1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	63.3	26.8	19.7		79.9	49.6	38.6	65.5	0.0	78.1	65.6	73.7
Incr Delay (d2), s/veh	26.0	0.8	0.3		20.6	2.4	0.5	2.5	0.0	28.4	6.5	1.2
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
%ile BackOfQ(95%),veh/ln	33.6	23.0	3.8		13.2	24.3	4.4	9.4	0.0	15.5	7.8	7.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	89.4	27.6	19.9		100.5	52.0	39.1	67.9	0.0	106.5	72.1	74.9
LnGrp LOS	F	C	B		F	D	D	E		F	E	E
Approach Vol, veh/h		2340				1577			320			274
Approach Delay, s/veh		40.2				56.4			90.6			61.5
Approach LOS		D				E			F			E
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	26.3	106.1	19.0	28.6	59.8	72.6	18.4	29.2				
Change Period (Y+Rc), s	8.0	7.6	7.5	7.5	8.6	7.6	7.5	7.5				
Max Green Setting (Gmax), s	27.0	84.4	11.5	26.5	57.4	53.4	11.5	26.5				
Max Q Clear Time (g_c+I1), s	18.0	39.0	13.5	10.1	50.2	42.3	11.0	21.3				
Green Ext Time (p_c), s	0.3	33.5	0.0	0.6	1.0	8.8	0.0	0.4				
Intersection Summary												
HCM 7th Control Delay, s/veh			50.7									
HCM 7th LOS			D									
Notes												
User approved ignoring U-Turning movement.												

Cranberry Commons
1: S Cranberry Blvd & US 41

2026 Background PM
Timing Plan: PM Peak Hour



Movement	SWR
Lane Configurations	??
Traffic Volume (veh/h)	307
Future Volume (veh/h)	307
Initial Q (Qb), veh	0
Lane Width Adj.	1.00
Ped-Bike Adj(A_pbT)	1.00
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1870
Adj Flow Rate, veh/h	81
Peak Hour Factor	0.95
Percent Heavy Veh, %	2
Cap, veh/h	1120
Arrive On Green	0.12
Sat Flow, veh/h	2790
Grp Volume(v), veh/h	81
Grp Sat Flow(s),veh/h/ln	1395
Q Serve(g_s), s	3.2
Cycle Q Clear(g_c), s	3.2
Prop In Lane	1.00
Lane Grp Cap(c), veh/h	1120
V/C Ratio(X)	0.07
Avail Cap(c_a), veh/h	1204
HCM Platoon Ratio	1.00
Upstream Filter(l)	1.00
Uniform Delay (d), s/veh	33.2
Incr Delay (d2), s/veh	0.0
Initial Q Delay(d3), s/veh	0.0
%ile BackOfQ(95%),veh/ln	2.0
Unsig. Movement Delay, s/veh	
LnGrp Delay(d), s/veh	33.2
LnGrp LOS	C
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	

Cranberry Commons
2: Huge Blvd & US 41

2026 Background PM
Timing Plan: PM Peak Hour

Intersection														
Int Delay, s/veh	2.3													
Movement	SEU	SEL	SET	SER	NWU	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		2	↑↑↑			2	↑↑↑				↑			↑
Traffic Vol, veh/h	14	84	1743	10	4	45	1552	10	0	0	43	0	0	54
Future Vol, veh/h	14	84	1743	10	4	45	1552	10	0	0	43	0	0	54
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	-	400	-	-	-	400	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	-	0	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-	0	-	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	2	2	0	0	0	1	10	0	0	0	0	0	6
Mvmt Flow	15	88	1835	11	4	47	1634	11	0	0	45	0	0	57
Major/Minor	Major1			Major2			Minor1			Minor2				
Conflicting Flow All	1200	1644	0	0	1347	1845	0	0	-	-	923	-	-	822
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	5.6	5.34	-	-	5.6	5.3	-	-	-	-	7.1	-	-	7.22
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.3	3.12	-	-	2.3	3.1	-	-	-	-	3.9	-	-	3.96
Pot Cap-1 Maneuver	346	189	-	-	287	153	-	-	0	0	237	0	0	266
Stage 1	-	-	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %			-	-			-	-						
Mov Cap-1 Maneuver	198	198	-	-	158	158	-	-	-	-	237	-	-	266
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Approach	SE			NW			NE			SW				
HCM Control Delay, s/v	2.2			1.17			23.78			22.21				
HCM LOS							C			C				
Minor Lane/Major Mvmt	NELn1	NWL	NWT	NWR	SEL	SET	SERSWLn1							
Capacity (veh/h)	237	158	-	-	198	-	-	266						
HCM Lane V/C Ratio	0.191	0.327	-	-	0.522	-	-	0.214						
HCM Control Delay (s/veh)	23.8	38.6	-	-	41.6	-	-	22.2						
HCM Lane LOS	C	E	-	-	E	-	-	C						
HCM 95th %tile Q(veh)	0.7	1.3	-	-	2.7	-	-	0.8						

LANE LEVEL OF SERVICE

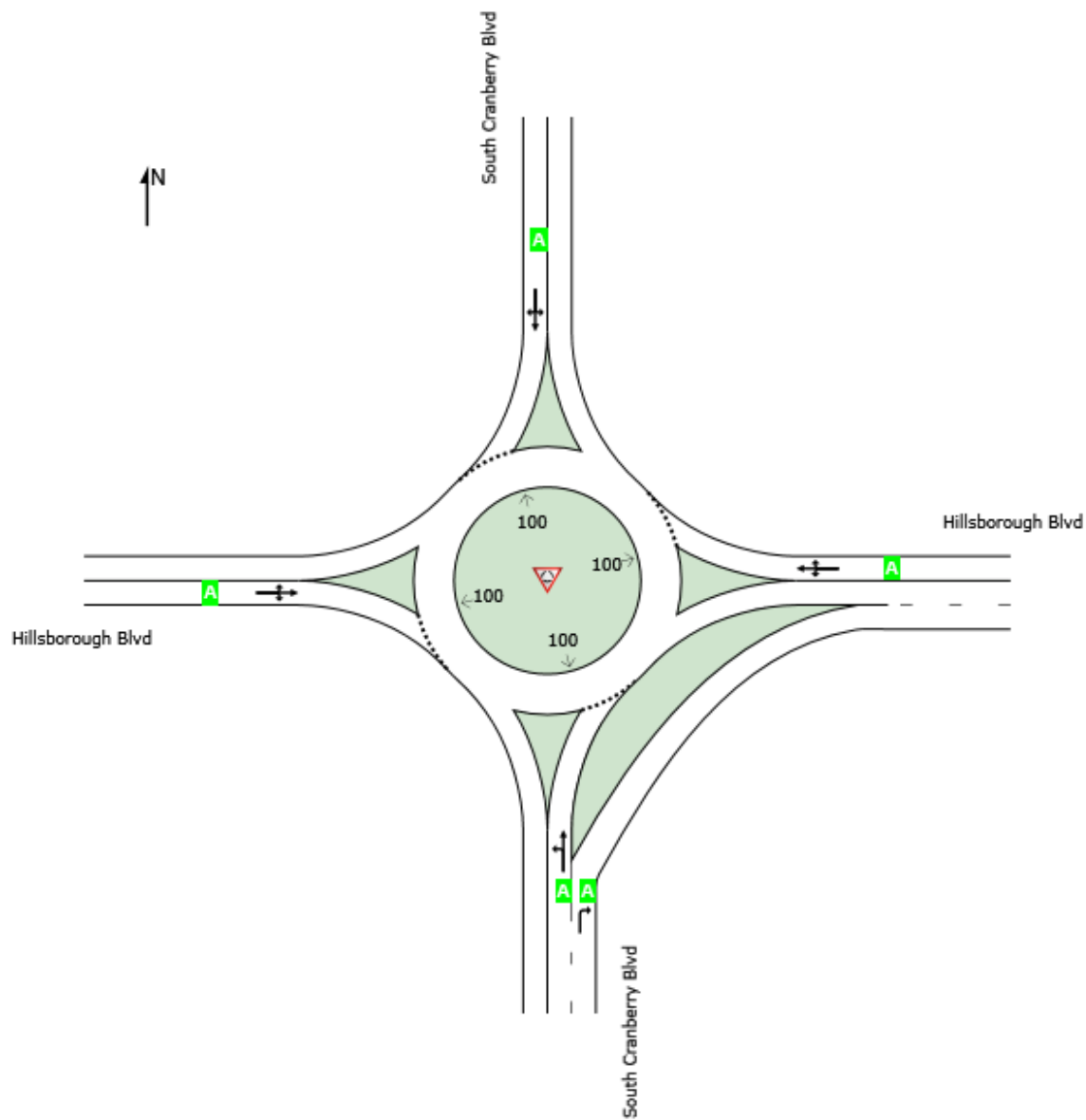
Lane Level of Service

 **Site: 1 [2026 Background PM (Site Folder: General)]**

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

Huge Blvd Mixed Use
Site Category: (None)
Roundabout

	Approaches				Intersection
	South	East	North	West	
LOS	A	A	A	A	A



Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

Roundabout LOS Method: Same as Sign Control.

Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.

LOS F will result if $v/c > 1$ irrespective of lane delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

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\Project2.sip9

MOVEMENT SUMMARY

 Site: 1 [2026 Background PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

Huge Blvd Mixed Use
Site Category: (None)
Roundabout

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	%	[Total HV]	%				[Veh. veh	Dist] ft				
			veh/h		veh/h		v/c	sec							mph
South: South Cranberry Blvd															
3	L2	All MCs	61	2.0	61	2.0	0.414	6.4	LOS A	2.6	65.1	0.24	0.09	0.24	32.4
8	T1	All MCs	490	1.0	490	1.0	0.414	6.4	LOS A	2.6	65.1	0.24	0.09	0.24	33.1
18	R2	All MCs	238	0.0	238	0.0	0.142	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	36.7
Approach			789	0.8	789	0.8	0.414	4.5	LOS A	2.6	65.1	0.17	0.06	0.17	34.0
East: Hillsborough Blvd															
1	L2	All MCs	183	4.0	183	4.0	0.344	9.3	LOS A	1.6	40.7	0.66	0.56	0.69	31.3
6	T1	All MCs	33	0.0	33	0.0	0.344	8.6	LOS A	1.6	40.7	0.66	0.56	0.69	32.4
16	R2	All MCs	32	7.0	32	7.0	0.344	9.8	LOS A	1.6	40.7	0.66	0.56	0.69	31.3
Approach			247	3.9	247	3.9	0.344	9.3	LOS A	1.6	40.7	0.66	0.56	0.69	31.4
North: South Cranberry Blvd															
7	L2	All MCs	12	0.0	12	0.0	0.356	7.1	LOS A	1.9	48.5	0.52	0.34	0.52	32.3
4	T1	All MCs	333	1.0	333	1.0	0.356	7.2	LOS A	1.9	48.5	0.52	0.34	0.52	32.9
14	R2	All MCs	18	0.0	18	0.0	0.356	7.1	LOS A	1.9	48.5	0.52	0.34	0.52	32.7
Approach			363	0.9	363	0.9	0.356	7.2	LOS A	1.9	48.5	0.52	0.34	0.52	32.9
West: Hillsborough Blvd															
5	L2	All MCs	24	5.0	24	5.0	0.080	5.9	LOS A	0.3	8.0	0.54	0.44	0.54	22.9
2	T1	All MCs	22	0.0	22	0.0	0.080	5.2	LOS A	0.3	8.0	0.54	0.44	0.54	23.0
12	R2	All MCs	16	0.0	16	0.0	0.080	5.2	LOS A	0.3	8.0	0.54	0.44	0.54	23.0
Approach			62	1.9	62	1.9	0.080	5.4	LOS A	0.3	8.0	0.54	0.44	0.54	23.0
All Vehicles			1461	1.4	1461	1.4	0.414	6.0	LOS A	2.6	65.1	0.36	0.23	0.36	32.6

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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\Project2.sip9

Total (with Project Traffic) Conditions

Cranberry Commons
1: S Cranberry Blvd & US 41

2026 Buildout AM
Timing Plan: AM Peak Hour

											
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	SWL	SWT	SWR
Lane Configurations											
Traffic Volume (vph)	234	975	106	108	1246	79	115	69	195	142	414
Future Volume (vph)	234	975	106	108	1246	79	115	69	195	142	414
Lane Group Flow (vph)	241	1005	109	124	1285	81	119	181	201	146	427
Turn Type	Prot	NA	Perm	Prot	NA	Perm	pm+pt	NA	pm+pt	NA	pt+ov
Protected Phases	5	2		1	6		3	8	7	4	4 5
Permitted Phases			2			6	8		4		
Detector Phase	5	2	2	1	6	6	3	8	7	4	4 5
Switch Phase											
Minimum Initial (s)	5.0	20.0	20.0	5.0	20.0	20.0	5.0	7.0	5.0	7.0	
Minimum Split (s)	13.6	27.6	27.6	13.0	27.6	27.6	12.5	14.5	12.5	25.5	
Total Split (s)	33.0	73.0	73.0	29.0	69.0	69.0	17.0	26.0	22.0	31.0	
Total Split (%)	22.0%	48.7%	48.7%	19.3%	46.0%	46.0%	11.3%	17.3%	14.7%	20.7%	
Yellow Time (s)	5.6	5.6	5.6	5.6	5.6	5.6	4.5	4.5	4.5	4.5	
All-Red Time (s)	3.0	2.0	2.0	2.4	2.0	2.0	3.0	3.0	3.0	3.0	
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)	8.6	7.6	7.6	8.0	7.6	7.6	7.5	7.5	7.5	7.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	C-Min	C-Min	None	C-Min	C-Min	None	None	None	None	
v/c Ratio	0.66	0.42	0.14	0.69	0.55	0.10	0.47	0.82	0.76	0.54	0.45
Control Delay (s/veh)	72.7	27.5	1.7	83.4	30.8	0.2	50.7	77.5	64.3	67.0	30.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	72.7	27.5	1.7	83.4	30.8	0.2	50.7	77.5	64.3	67.0	30.2
Queue Length 50th (ft)	119	252	0	119	349	0	87	134	155	131	133
Queue Length 95th (ft)	160	292	16	186	400	0	150	#240	#241	208	182
Internal Link Dist (ft)		813			1018			411		404	
Turn Bay Length (ft)	700		365	365		410	120				
Base Capacity (vph)	537	2387	772	237	2323	814	257	245	267	293	1073
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.45	0.42	0.14	0.52	0.55	0.10	0.46	0.74	0.75	0.50	0.40

Intersection Summary

Cycle Length: 150
 Actuated Cycle Length: 150
 Offset: 0 (0%), Referenced to phase 2:SET and 6:NWT, Start of Yellow
 Natural Cycle: 80
 Control Type: Actuated-Coordinated
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 1: S Cranberry Blvd & US 41

 Ø1	 Ø2 (R)	 Ø3	 Ø4
29 s	73 s	17 s	31 s
 Ø5	 Ø6 (R)	 Ø7	 Ø8
33 s	69 s	22 s	26 s

Cranberry Commons
1: S Cranberry Blvd & US 41

2026 Buildout AM
Timing Plan: AM Peak Hour

												
Movement	SEL	SET	SER	NWU	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT
Lane Configurations												
Traffic Volume (veh/h)	234	975	106	13	108	1246	79	115	69	107	195	142
Future Volume (veh/h)	234	975	106	13	108	1246	79	115	69	107	195	142
Initial Q (Qb), veh	0	0	0		0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1811	1856	1752		1796	1841	1870	1856	1870	1870	1900	1856
Adj Flow Rate, veh/h	241	1005	85		111	1285	51	119	71	65	201	146
Peak Hour Factor	0.97	0.97	0.97		0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	6	3	10		7	4	2	3	2	2	0	3
Cap, veh/h	295	2546	746		133	2453	774	227	107	98	278	283
Arrive On Green	0.09	0.50	0.50		0.08	0.49	0.49	0.06	0.12	0.12	0.10	0.15
Sat Flow, veh/h	3346	5066	1485		1711	5025	1585	1767	899	823	1810	1856
Grp Volume(v), veh/h	241	1005	85		111	1285	51	119	0	136	201	146
Grp Sat Flow(s),veh/h/ln	1673	1689	1485		1711	1675	1585	1767	0	1722	1810	1856
Q Serve(g_s), s	10.6	18.5	4.5		9.6	26.4	2.6	8.9	0.0	11.3	14.5	10.9
Cycle Q Clear(g_c), s	10.6	18.5	4.5		9.6	26.4	2.6	8.9	0.0	11.3	14.5	10.9
Prop In Lane	1.00		1.00		1.00		1.00	1.00		0.48	1.00	
Lane Grp Cap(c), veh/h	295	2546	746		133	2453	774	227	0	205	278	283
V/C Ratio(X)	0.82	0.39	0.11		0.84	0.52	0.07	0.53	0.00	0.66	0.72	0.52
Avail Cap(c_a), veh/h	544	2546	746		240	2453	774	227	0	212	278	291
HCM Platoon Ratio	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00		1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	67.2	23.1	19.7		68.2	26.4	20.3	53.9	0.0	63.2	52.5	58.5
Incr Delay (d2), s/veh	5.6	0.5	0.3		12.8	0.8	0.2	2.2	0.0	7.2	8.9	1.5
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
%ile BackOfQ(95%),veh/ln	8.3	11.7	2.9		8.1	15.7	1.8	7.3	0.0	9.1	11.7	8.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	72.8	23.6	20.0		81.0	27.2	20.5	56.1	0.0	70.4	61.4	60.0
LnGrp LOS	E	C	B		F	C	C	E		E	E	E
Approach Vol, veh/h		1331				1447			255			774
Approach Delay, s/veh		32.3				31.1			63.7			56.5
Approach LOS		C				C			E			E
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	19.6	83.0	17.0	30.4	21.8	80.8	22.0	25.4				
Change Period (Y+Rc), s	8.0	7.6	7.5	7.5	8.6	7.6	7.5	7.5				
Max Green Setting (Gmax), s	21.0	65.4	9.5	23.5	24.4	61.4	14.5	18.5				
Max Q Clear Time (g_c+I1), s	11.6	20.5	10.9	22.6	12.6	28.4	16.5	13.3				
Green Ext Time (p_c), s	0.2	17.2	0.0	0.3	0.6	19.4	0.0	0.2				
Intersection Summary												
HCM 7th Control Delay, s/veh			38.9									
HCM 7th LOS			D									
Notes												
User approved ignoring U-Turning movement.												

HCM 7th Signalized Intersection Summary
03/14/2025

Cranberry Commons
1: S Cranberry Blvd & US 41

2026 Buildout AM
Timing Plan: AM Peak Hour



Movement	SWR
Lane Configurations	??
Traffic Volume (veh/h)	414
Future Volume (veh/h)	414
Initial Q (Qb), veh	0
Lane Width Adj.	1.00
Ped-Bike Adj(A_pbT)	1.00
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1870
Adj Flow Rate, veh/h	427
Peak Hour Factor	0.97
Percent Heavy Veh, %	2
Cap, veh/h	671
Arrive On Green	0.15
Sat Flow, veh/h	2790
Grp Volume(v), veh/h	427
Grp Sat Flow(s),veh/h/ln	1395
Q Serve(g_s), s	20.6
Cycle Q Clear(g_c), s	20.6
Prop In Lane	1.00
Lane Grp Cap(c), veh/h	671
V/C Ratio(X)	0.64
Avail Cap(c_a), veh/h	683
HCM Platoon Ratio	1.00
Upstream Filter(l)	1.00
Uniform Delay (d), s/veh	51.1
Incr Delay (d2), s/veh	1.9
Initial Q Delay(d3), s/veh	0.0
%ile BackOfQ(95%),veh/ln	11.8
Unsig. Movement Delay, s/veh	
LnGrp Delay(d), s/veh	53.0
LnGrp LOS	D
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	

Cranberry Commons
2: Huge Blvd & US 41

2026 Buildout AM
Timing Plan: AM Peak Hour

Intersection															
Int Delay, s/veh	1.9														
Movement	SEU	SEL	SET	SER	NWU	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR	
Lane Configurations		S ↑↑↑				S ↑↑↑					↑			↑	
Traffic Vol, veh/h	6	42	1226	9	5	26	1277	78	0	0	29	0	0	140	
Future Vol, veh/h	6	42	1226	9	5	26	1277	78	0	0	29	0	0	140	
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Sign Control	Free	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop	
RT Channelized	-	-	-	None	-	-	-	None	-	-	None	-	-	None	
Storage Length	-	400	-	-	-	400	-	-	-	-	0	-	-	0	
Veh in Median Storage, #	-	-	0	-	-	-	0	-	-	0	-	-	0	-	
Grade, %	-	-	0	-	-	-	0	-	-	0	-	-	0	-	
Peak Hour Factor	99	99	99	99	99	99	99	99	99	99	99	99	99	99	
Heavy Vehicles, %	0	0	3	0	0	12	4	18	0	0	0	0	0	0	
Mvmt Flow	6	42	1238	9	5	26	1290	79	0	0	29	0	0	141	
Major/Minor	Major1				Major2				Minor1			Minor2			
Conflicting Flow All	999	1369	0	0	911	1247	0	0	-	-	624	-	-	684	
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Critical Hdwy	5.6	5.3	-	-	5.6	5.54	-	-	-	-	7.1	-	-	7.1	
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Follow-up Hdwy	2.3	3.1	-	-	2.3	3.22	-	-	-	-	3.9	-	-	3.9	
Pot Cap-1 Maneuver	448	264	-	-	501	272	-	-	0	0	371	0	0	339	
Stage 1	-	-	-	-	-	-	-	-	0	0	-	0	0	-	
Stage 2	-	-	-	-	-	-	-	-	0	0	-	0	0	-	
Platoon blocked, %			-	-			-	-							
Mov Cap-1 Maneuver	263	263	-	-	291	291	-	-	-	-	371	-	-	339	
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Approach	SE				NW				NE			SW			
HCM Control Delay, s/v	0.81				0.42				15.53			23.01			
HCM LOS									C			C			
Minor Lane/Major Mvmt	NELn1	NWL	NWT	NWR	SEL	SET	SERSWLn1								
Capacity (veh/h)	371	291	-	-	263	-	-	339							
HCM Lane V/C Ratio	0.079	0.107	-	-	0.184	-	-	0.417							
HCM Control Delay (s/veh)	15.5	18.8	-	-	21.7	-	-	23							
HCM Lane LOS	C	C	-	-	C	-	-	C							
HCM 95th %tile Q(veh)	0.3	0.4	-	-	0.7	-	-	2							

Cranberry Commons
3: US 41 & Project Driveway 1

2026 Buildout AM
Timing Plan: AM Peak Hour

Intersection						
Int Delay, s/veh	0.3					
Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations		↑↑↑↑	↑↑↑↓			↗
Traffic Vol, veh/h	0	1283	1383	41	0	49
Future Vol, veh/h	0	1283	1383	41	0	49
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	0	3	4	2	0	2
Mvmt Flow	0	1336	1441	43	0	51
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	-	0	-	0	-	742
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	0	-	-	-	0	307
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	307
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	SE	NW		SW		
HCM Control Delay, s/v	0	0		19.02		
HCM LOS	C					
Minor Lane/Major Mvmt	NWT	NWR	SETSWLn1			
Capacity (veh/h)	-	-	-	307		
HCM Lane V/C Ratio	-	-	-	0.166		
HCM Control Delay (s/veh)	-	-	-	19		
HCM Lane LOS	-	-	-	C		
HCM 95th %tile Q(veh)	-	-	-	0.6		

LANE LEVEL OF SERVICE

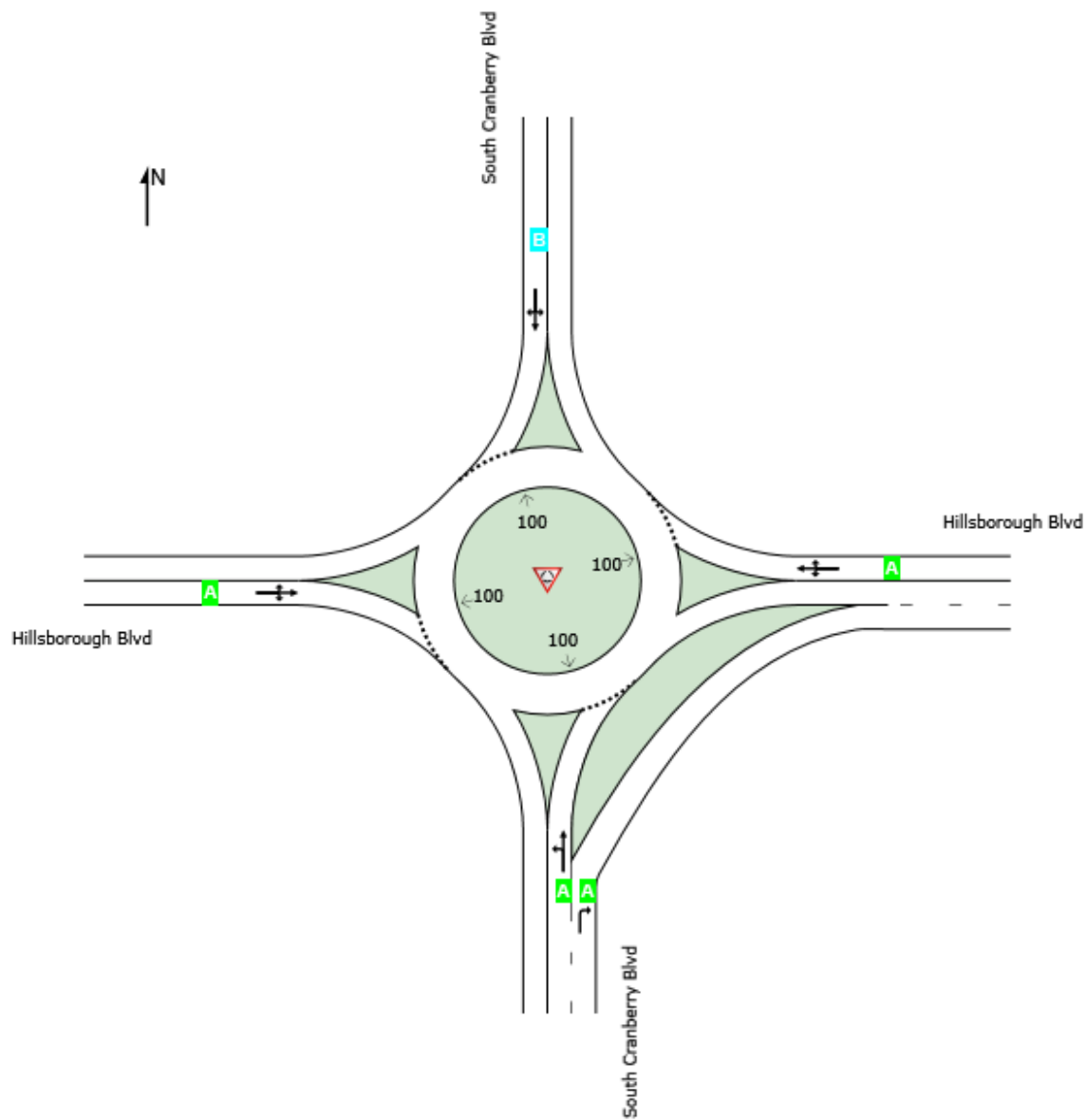
Lane Level of Service

 **Site: 1 [2026 Buildout AM (Site Folder: General)]**

Output produced by **SIDRA INTERSECTION Version: 9.1.1.200**

Huge Blvd Mixed Use
Site Category: (None)
Roundabout

	Approaches				Intersection
	South	East	North	West	
LOS	A	A	B	A	A



Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

Roundabout LOS Method: Same as Sign Control.

Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.

LOS F will result if $v/c > 1$ irrespective of lane delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

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\SIDRA\Project2.sip9

MOVEMENT SUMMARY

 Site: 1 [2026 Buildout AM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

Huge Blvd Mixed Use
Site Category: (None)
Roundabout

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	%	[Total HV]	%				[Veh. veh	Dist] ft				
			veh/h		veh/h		v/c	sec							mph
South: South Cranberry Blvd															
3	L2	All MCs	51	13.0	51	13.0	0.215	5.3	LOS A	1.0	25.4	0.22	0.09	0.22	32.7
8	T1	All MCs	221	2.0	221	2.0	0.215	4.5	LOS A	1.0	25.4	0.22	0.09	0.22	33.8
18	R2	All MCs	182	0.0	182	0.0	0.108	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	36.7
Approach			453	2.4	453	2.4	0.215	2.8	LOS A	1.0	25.4	0.13	0.05	0.13	34.7
East: Hillsborough Blvd															
1	L2	All MCs	278	7.0	278	7.0	0.366	7.9	LOS A	1.8	48.5	0.55	0.37	0.55	31.3
6	T1	All MCs	21	0.0	21	0.0	0.366	7.1	LOS A	1.8	48.5	0.55	0.37	0.55	32.8
16	R2	All MCs	40	10.0	40	10.0	0.366	8.2	LOS A	1.8	48.5	0.55	0.37	0.55	31.4
Approach			339	6.9	339	6.9	0.366	7.9	LOS A	1.8	48.5	0.55	0.37	0.55	31.4
North: South Cranberry Blvd															
7	L2	All MCs	39	4.0	39	4.0	0.652	14.3	LOS B	7.6	193.0	0.79	0.76	1.24	29.3
4	T1	All MCs	518	1.0	518	1.0	0.652	13.9	LOS B	7.6	193.0	0.79	0.76	1.24	29.9
14	R2	All MCs	46	2.0	46	2.0	0.652	14.0	LOS B	7.6	193.0	0.79	0.76	1.24	29.7
Approach			603	1.3	603	1.3	0.652	13.9	LOS B	7.6	193.0	0.79	0.76	1.24	29.9
West: Hillsborough Blvd															
5	L2	All MCs	24	9.0	24	9.0	0.139	9.6	LOS A	0.5	12.6	0.65	0.62	0.65	22.1
2	T1	All MCs	15	7.0	15	7.0	0.139	9.0	LOS A	0.5	12.6	0.65	0.62	0.65	22.3
12	R2	All MCs	32	4.0	32	4.0	0.139	8.3	LOS A	0.5	12.6	0.65	0.62	0.65	22.2
Approach			71	6.3	71	6.3	0.139	8.9	LOS A	0.5	12.6	0.65	0.62	0.65	22.2
All Vehicles			1466	3.2	1466	3.2	0.652	8.8	LOS A	7.6	193.0	0.52	0.44	0.71	31.0

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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Cranberry Commons
1: S Cranberry Blvd & US 41

2026 Buildout PM
Timing Plan: PM Peak Hour

											
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	SWL	SWT	SWR
Lane Configurations											
Traffic Volume (vph)	533	1668	121	155	1308	145	125	138	130	105	318
Future Volume (vph)	533	1668	121	155	1308	145	125	138	130	105	318
Lane Group Flow (vph)	561	1756	127	187	1377	153	132	223	137	111	335
Turn Type	Prot	NA	Perm	Prot	NA	Perm	pm+pt	NA	pm+pt	NA	pt+ov
Protected Phases	5	2		1	6		3	8	7	4	4 5
Permitted Phases			2			6	8		4		
Detector Phase	5	2	2	1	6	6	3	8	7	4	4 5
Switch Phase											
Minimum Initial (s)	5.0	20.0	20.0	5.0	20.0	20.0	5.0	7.0	5.0	7.0	
Minimum Split (s)	13.6	27.6	27.6	13.0	27.6	27.6	12.5	25.5	12.5	25.5	
Total Split (s)	66.0	92.0	92.0	35.0	61.0	61.0	19.0	34.0	19.0	34.0	
Total Split (%)	36.7%	51.1%	51.1%	19.4%	33.9%	33.9%	10.6%	18.9%	10.6%	18.9%	
Yellow Time (s)	5.6	5.6	5.6	5.6	5.6	5.6	4.5	4.5	4.5	4.5	
All-Red Time (s)	3.0	2.0	2.0	2.4	2.0	2.0	3.0	3.0	3.0	3.0	
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)	8.6	7.6	7.6	8.0	7.6	7.6	7.5	7.5	7.5	7.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	C-Min	C-Min	None	C-Min	C-Min	None	None	None	None	
v/c Ratio	0.82	0.63	0.15	0.82	0.63	0.20	0.49	0.89	0.77	0.43	0.29
Control Delay (s/veh)	78.8	34.7	4.1	103.4	43.0	3.4	62.9	105.3	84.0	76.1	23.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	78.8	34.7	4.1	103.4	43.0	3.4	62.9	105.3	84.0	76.1	23.8
Queue Length 50th (ft)	330	514	0	218	473	0	127	246	132	121	96
Queue Length 95th (ft)	381	577	40	310	567	36	195	#391	#228	191	131
Internal Link Dist (ft)		813			1018			411		404	
Turn Bay Length (ft)	700		365	365		410	120				
Base Capacity (vph)	1105	2797	864	266	2194	782	273	269	179	276	1445
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.51	0.63	0.15	0.70	0.63	0.20	0.48	0.83	0.77	0.40	0.23

Intersection Summary

Cycle Length: 180
 Actuated Cycle Length: 180
 Offset: 157 (87%), Referenced to phase 2:SET and 6:NWT, Start of Yellow
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 1: S Cranberry Blvd & US 41

 Ø1 35 s	 Ø2 (R) 92 s	 Ø3 19 s	 Ø4 34 s
 Ø5 66 s	 Ø6 (R) 61 s	 Ø7 19 s	 Ø8 34 s

Cranberry Commons
1: S Cranberry Blvd & US 41

2026 Buildout PM
Timing Plan: PM Peak Hour

												
Movement	SEL	SET	SER	NWU	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT
Lane Configurations												
Traffic Volume (veh/h)	533	1668	121	23	155	1308	145	125	138	74	130	105
Future Volume (veh/h)	533	1668	121	23	155	1308	145	125	138	74	130	105
Initial Q (Qb), veh	0	0	0		0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	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
Work Zone On Approach		No				No			No			No
Adj Sat Flow, veh/h/ln	1885	1870	1885		1900	1885	1885	1885	1841	1900	1870	1885
Adj Flow Rate, veh/h	561	1756	100		163	1377	79	132	145	71	137	111
Peak Hour Factor	0.95	0.95	0.95		0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	1	2	1		0	1	1	1	4	0	2	1
Cap, veh/h	626	2971	846		184	2305	716	251	158	77	168	255
Arrive On Green	0.18	0.53	0.53		0.10	0.45	0.45	0.06	0.14	0.14	0.06	0.14
Sat Flow, veh/h	3483	5611	1598		1810	5147	1598	1795	1167	571	1781	1885
Grp Volume(v), veh/h	561	1756	100		163	1377	79	132	0	216	137	111
Grp Sat Flow(s),veh/h/ln	1742	1870	1598		1810	1716	1598	1795	0	1738	1781	1885
Q Serve(g_s), s	28.3	38.6	5.7		16.0	36.3	5.2	11.4	0.0	22.1	11.5	9.7
Cycle Q Clear(g_c), s	28.3	38.6	5.7		16.0	36.3	5.2	11.4	0.0	22.1	11.5	9.7
Prop In Lane	1.00		1.00		1.00		1.00	1.00		0.33	1.00	
Lane Grp Cap(c), veh/h	626	2971	846		184	2305	716	251	0	235	168	255
V/C Ratio(X)	0.90	0.59	0.12		0.89	0.60	0.11	0.53	0.00	0.92	0.81	0.44
Avail Cap(c_a), veh/h	1111	2971	846		271	2305	716	251	0	256	168	278
HCM Platoon Ratio	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00		1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	72.2	29.0	21.3		79.9	37.5	28.9	62.6	0.0	76.9	64.9	71.5
Incr Delay (d2), s/veh	5.0	0.9	0.3		20.6	1.2	0.3	2.0	0.0	34.0	25.4	1.2
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
%ile BackOfQ(95%),veh/ln	18.9	24.1	4.0		13.2	21.7	3.7	9.2	0.0	17.8	10.8	8.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	77.2	29.9	21.5		100.5	38.6	29.2	64.6	0.0	110.9	90.3	72.7
LnGrp LOS	E	C	C		F	D	C	E		F	F	E
Approach Vol, veh/h		2417				1619			348			341
Approach Delay, s/veh		40.5				44.4			93.4			71.9
Approach LOS		D				D			F			E
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	26.3	102.9	19.0	31.8	40.9	88.2	19.0	31.8				
Change Period (Y+Rc), s	8.0	7.6	7.5	7.5	8.6	7.6	7.5	7.5				
Max Green Setting (Gmax), s	27.0	84.4	11.5	26.5	57.4	53.4	11.5	26.5				
Max Q Clear Time (g_c+I1), s	18.0	40.6	13.4	11.7	30.3	38.3	13.5	24.1				
Green Ext Time (p_c), s	0.3	32.6	0.0	0.7	2.0	11.6	0.0	0.2				
Intersection Summary												
HCM 7th Control Delay, s/veh			48.0									
HCM 7th LOS			D									
Notes												
User approved ignoring U-Turning movement.												

Cranberry Commons
1: S Cranberry Blvd & US 41

2026 Buildout PM
Timing Plan: PM Peak Hour



Movement	SWR
Lane Configurations	??
Traffic Volume (veh/h)	318
Future Volume (veh/h)	318
Initial Q (Qb), veh	0
Lane Width Adj.	1.00
Ped-Bike Adj(A_pbT)	1.00
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1870
Adj Flow Rate, veh/h	93
Peak Hour Factor	0.95
Percent Heavy Veh, %	2
Cap, veh/h	878
Arrive On Green	0.14
Sat Flow, veh/h	2790
Grp Volume(v), veh/h	93
Grp Sat Flow(s),veh/h/ln	1395
Q Serve(g_s), s	4.3
Cycle Q Clear(g_c), s	4.3
Prop In Lane	1.00
Lane Grp Cap(c), veh/h	878
V/C Ratio(X)	0.11
Avail Cap(c_a), veh/h	912
HCM Platoon Ratio	1.00
Upstream Filter(l)	1.00
Uniform Delay (d), s/veh	43.7
Incr Delay (d2), s/veh	0.1
Initial Q Delay(d3), s/veh	0.0
%ile BackOfQ(95%),veh/ln	2.7
Unsig. Movement Delay, s/veh	
LnGrp Delay(d), s/veh	43.8
LnGrp LOS	D
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	

Cranberry Commons
2: Huge Blvd & US 41

2026 Buildout PM
Timing Plan: PM Peak Hour

Intersection														
Int Delay, s/veh	3.4													
Movement	SEU	SEL	SET	SER	NWU	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		2	↑↑↑			2	↑↑↑				↑			↑
Traffic Vol, veh/h	14	94	1776	10	4	45	1538	72	0	0	43	0	0	116
Future Vol, veh/h	14	94	1776	10	4	45	1538	72	0	0	43	0	0	116
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	-	400	-	-	-	400	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	-	0	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-	0	-	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	2	2	0	0	0	1	10	0	0	0	0	0	6
Mvmt Flow	15	99	1869	11	4	47	1619	76	0	0	45	0	0	122
Major/Minor	Major1			Major2			Minor1			Minor2				
Conflicting Flow All	1237	1695	0	0	1372	1880	0	0	-	-	940	-	-	847
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	5.6	5.34	-	-	5.6	5.3	-	-	-	-	7.1	-	-	7.22
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.3	3.12	-	-	2.3	3.1	-	-	-	-	3.9	-	-	3.96
Pot Cap-1 Maneuver	331	178	-	-	278	147	-	-	0	0	230	0	0	255
Stage 1	-	-	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %			-	-			-	-						
Mov Cap-1 Maneuver	177	177	-	-	151	151	-	-	-	-	230	-	-	255
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Approach	SE				NW				NE				SW	
HCM Control Delay, s/v	3.18				1.2				24.4				31.35	
HCM LOS									C				D	
Minor Lane/Major Mvmt	NELn1	NWL	NWT	NWR	SEL	SET	SERSWLn1							
Capacity (veh/h)	230	151	-	-	177	-	-	255						
HCM Lane V/C Ratio	0.196	0.341	-	-	0.641	-	-	0.478						
HCM Control Delay (s/veh)	24.4	40.6	-	-	55.7	-	-	31.4						
HCM Lane LOS	C	E	-	-	F	-	-	D						
HCM 95th %tile Q(veh)	0.7	1.4	-	-	3.7	-	-	2.4						

Cranberry Commons
3: US 41 & Project Driveway 1

2026 Buildout PM
Timing Plan: PM Peak Hour

Intersection						
Int Delay, s/veh	0.2					
Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations		↑↑↑↑	↑↑↑↓			↗
Traffic Vol, veh/h	0	1894	1627	42	0	35
Future Vol, veh/h	0	1894	1627	42	0	35
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	0	2	1	2	0	2
Mvmt Flow	0	1973	1695	44	0	36
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	-	0	-	0	-	869
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	0	-	-	-	0	253
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	253
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	SE	NW		SW		
HCM Control Delay, s/v	0	0		21.58		
HCM LOS	C					
Minor Lane/Major Mvmt		NWT	NWR	SETSWLn1		
Capacity (veh/h)		-	-	-	253	
HCM Lane V/C Ratio		-	-	-	0.144	
HCM Control Delay (s/veh)		-	-	-	21.6	
HCM Lane LOS		-	-	-	C	
HCM 95th %tile Q(veh)		-	-	-	0.5	

LANE LEVEL OF SERVICE

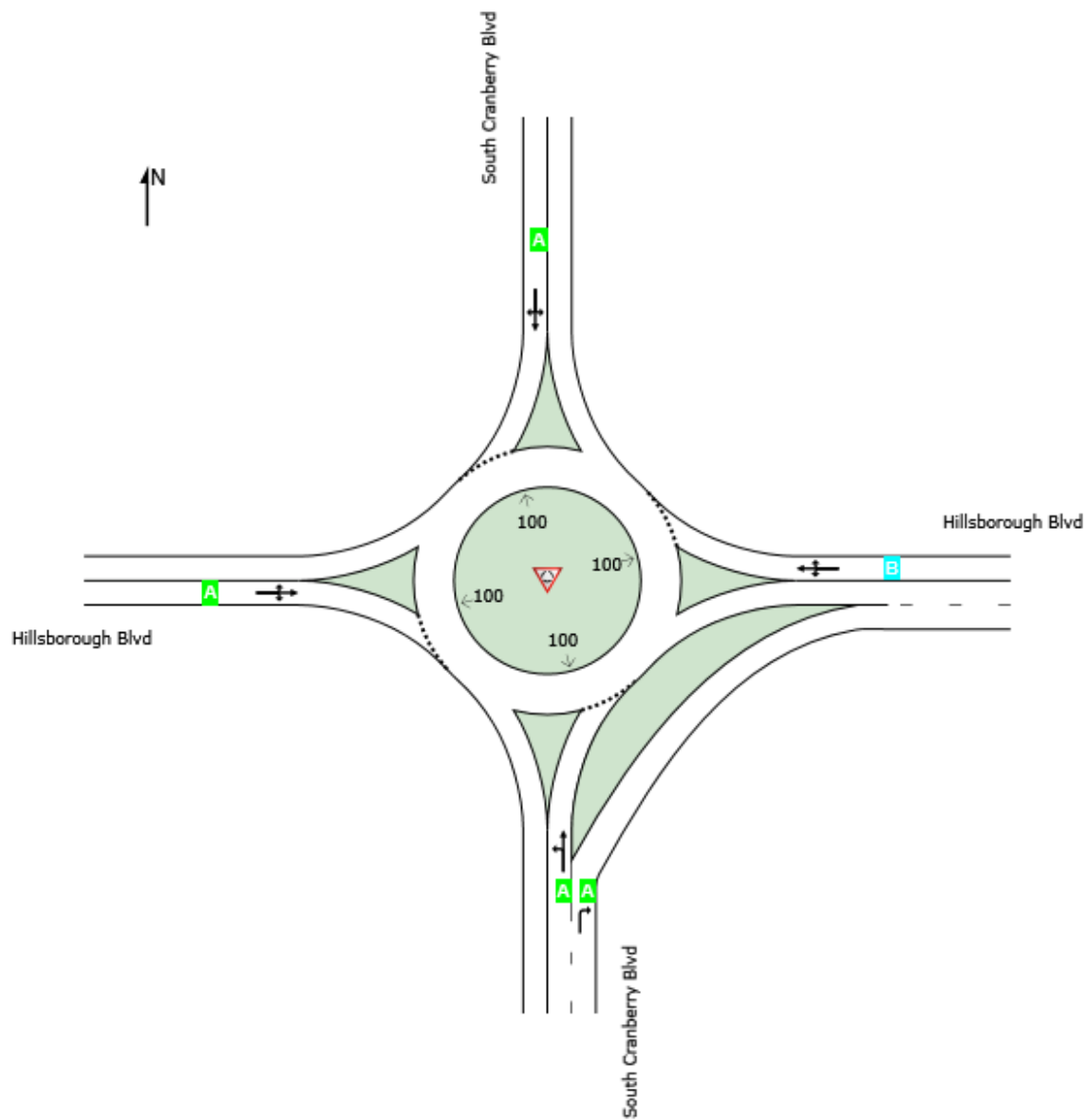
Lane Level of Service

 **Site: 1 [2026 Buildout PM (Site Folder: General)]**

Output produced by **SIDRA INTERSECTION Version: 9.1.1.200**

Huge Blvd Mixed Use
Site Category: (None)
Roundabout

	Approaches				Intersection
	South	East	North	West	
LOS	A	B	A	A	A



Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

Roundabout LOS Method: Same as Sign Control.

Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.

LOS F will result if $v/c > 1$ irrespective of lane delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

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Project: K:\TAM_TPTO\147000004 - Fuccillo Mixed Use - Charlotte County\2022 - Fuccillo Port Charlotte - Clint Conway\Analysis\Synchro
\SIDRA\Project2.sip9

MOVEMENT SUMMARY

 Site: 1 [2026 Buildout PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

Huge Blvd Mixed Use
Site Category: (None)
Roundabout

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Queue	Back Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]		[Total HV]					[Veh. veh	[Dist]				
			veh/h	%	veh/h	%	v/c	sec			ft				mph
South: South Cranberry Blvd															
3	L2	All MCs	61	2.0	61	2.0	0.419	6.6	LOS A	2.6	65.8	0.27	0.10	0.27	32.3
8	T1	All MCs	490	1.0	490	1.0	0.419	6.5	LOS A	2.6	65.8	0.27	0.10	0.27	33.0
18	R2	All MCs	336	0.0	336	0.0	0.201	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	36.7
Approach			887	0.7	887	0.7	0.419	4.1	LOS A	2.6	65.8	0.17	0.06	0.17	34.2
East: Hillsborough Blvd															
1	L2	All MCs	251	4.0	251	4.0	0.452	11.3	LOS B	2.7	68.6	0.71	0.67	0.93	30.4
6	T1	All MCs	33	0.0	33	0.0	0.452	10.5	LOS B	2.7	68.6	0.71	0.67	0.93	31.4
16	R2	All MCs	40	7.0	40	7.0	0.452	11.8	LOS B	2.7	68.6	0.71	0.67	0.93	30.4
Approach			324	4.0	324	4.0	0.452	11.3	LOS B	2.7	68.6	0.71	0.67	0.93	30.5
North: South Cranberry Blvd															
7	L2	All MCs	25	0.0	25	0.0	0.396	8.1	LOS A	2.1	54.1	0.59	0.42	0.59	31.7
4	T1	All MCs	333	1.0	333	1.0	0.396	8.2	LOS A	2.1	54.1	0.59	0.42	0.59	32.4
14	R2	All MCs	18	0.0	18	0.0	0.396	8.1	LOS A	2.1	54.1	0.59	0.42	0.59	32.1
Approach			376	0.9	376	0.9	0.396	8.2	LOS A	2.1	54.1	0.59	0.42	0.59	32.3
West: Hillsborough Blvd															
5	L2	All MCs	24	5.0	24	5.0	0.087	6.5	LOS A	0.3	8.6	0.57	0.49	0.57	22.8
2	T1	All MCs	22	0.0	22	0.0	0.087	5.7	LOS A	0.3	8.6	0.57	0.49	0.57	22.9
12	R2	All MCs	16	0.0	16	0.0	0.087	5.7	LOS A	0.3	8.6	0.57	0.49	0.57	22.9
Approach			62	1.9	62	1.9	0.087	6.0	LOS A	0.3	8.6	0.57	0.49	0.57	22.9
All Vehicles			1649	1.4	1649	1.4	0.452	6.5	LOS A	2.7	68.6	0.39	0.28	0.43	32.4

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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Project: K:\TAM_TPTO\147000004 - Fuccillo Mixed Use - Charlotte County\2022 - Fuccillo Port Charlotte - Clint Conway\Analysis\Synchro\SIDRA\Project2.sip9

APPENDIX E:

Growth Rate Calculations

Project: Fuccillo Mixed Use
 Location: S Cranberry Boulevard & Tamiami Trail
 Notes: FDOT Historical AADT

Volume Source #1: 4124 - CHANCELLOR BLVD, EAST OF FOUNTAIN ST
 Volume Source #2: 0048 - SR 45/US 41, 600' W OF N TOLEDO BLADE/CR39
 Volume Source #3:
 Volume Source #4:
 Volume Source #5:

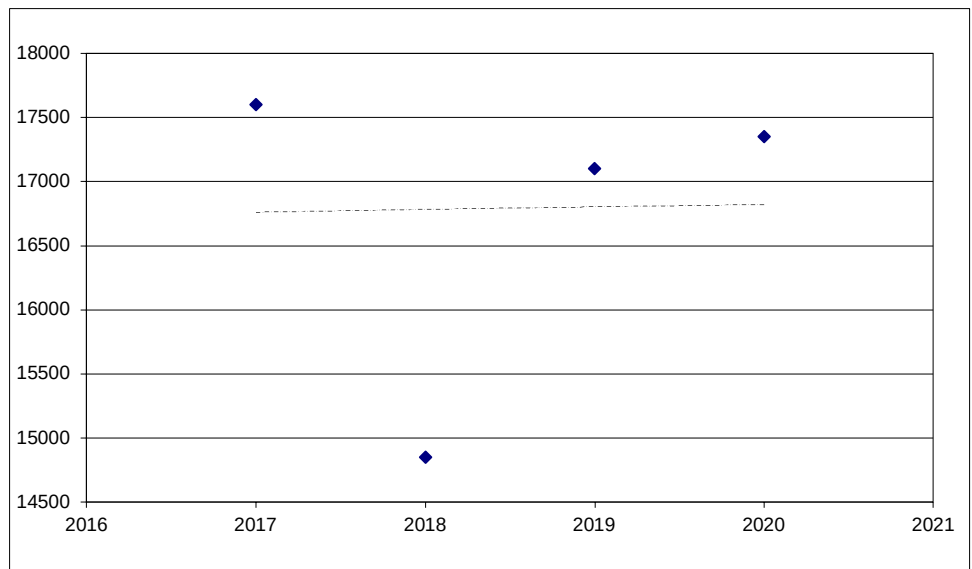
Line	Month	Year	Volume Source #1	Volume Source #2	Volume Source #3	Volume Source #4	Volume Source #5	Average Volume
1		2020	5700	29000				17350
2		2019	5700	28500				17100
3		2018	5200	24500				14850
4		2017	3700	31500				17600
5		2016	3500	30500				17000
6								
7								
8								
9								
10								

INPUT DATA				OUTPUT DATA			
Line	Month	Year	Aggregate Traffic Volume	Line	Month	Year	Best Fit Volume Trend
1		2020	17350	1		2020	16820
2		2019	17100	2		2019	16800
3		2018	14850	3		2018	16780
4		2017	17600	4		2017	16760
5		2016	17000	5		2016	16740
6				6			
7				7			
8				8			
9				9			
10				10			

Slope: 20
 Intercept: -23580
 R^2 : 0.00082085
 Standard Error: 1273.970172

Exponential
 Growth Rate:
 Future = Existing (1+Growth)^N

Linear
 Growth Rate:
 Future = Existing (1+Growth*N)



FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2020 HISTORICAL AADT REPORT

COUNTY: 01 - CHARLOTTE

SITE: 0048 - SR 45/US 41, 600' W OF N TOLEDO BLADE/CR39 CH22

YEAR	AADT		DIRECTION 1		DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
----	-----		-----		-----	-----	-----	-----
2020	29000	C	W 14500		E 14500	9.00	52.00	4.40
2019	28500	C	W 14000		E 14500	9.00	52.00	4.40
2018	24500	C	W 12000		E 12500	9.00	52.50	4.10
2017	31500	S	W 15500		E 16000	9.00	52.20	3.90
2016	30500	F	W 15000		E 15500	9.00	56.90	3.90
2015	29500	C	W 14500		E 15000	9.00	53.60	3.90
2014	27500	C	W 13500		E 14000	9.00	52.60	4.00
2013	28500	C	W 14000		E 14500	9.00	52.60	3.90
2012	29000	C	W 14500		E 14500	9.00	53.30	4.40
2011	31500	C	W 15500		E 16000	9.00	53.50	3.40
2010	31000	C	W 15000		E 16000	10.32	53.30	3.40
2009	31500	C	W 15500		E 16000	10.43	54.01	3.40
2008	28500	C	W 14000		E 14500	10.61	53.94	3.80
2007	31000	C	W 15500		E 15500	10.17	54.96	2.80
2006	34500	C	W 17000		E 17500	9.78	53.48	5.50
2005	34000	C	W 17000		E 17000	9.90	55.00	4.10

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

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2020 HISTORICAL AADT REPORT

COUNTY: 01 - CHARLOTTE

SITE: 4124 - CHANCELLOR BLVD, EAST OF FOUNTAIN ST CC 124

YEAR	AADT		DIRECTION 1		DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
----	-----		-----		-----	-----	-----	-----
2020	5700 F	E	2900	W	2800	9.00	52.50	10.30
2019	5700 C	E	2900	W	2800	9.00	52.50	4.90
2018	5200 C	E	2600	W	2600	9.00	53.50	5.00
2017	3700 T					9.00	52.50	4.10
2016	3500 S	E	1800	W	1700	9.00	52.80	3.80
2015	3300 F	E	1700	W	1600	9.00	53.70	3.80
2014	3100 C	E	1600	W	1500	9.00	53.10	3.80
2013	2300 S	E	1200	W	1100	9.00	53.10	3.10
2012	2300 F	E	1200	W	1100	9.00	53.30	3.10
2011	2300 C	E	1200	W	1100	9.00	53.40	3.10
2010	2300 S	E	1200	W	1100	10.33	53.58	3.90
2009	2300 F	E	1200	W	1100	10.66	52.85	3.90
2008	2500 C	E	1300	W	1200	10.83	53.49	3.90

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

APPENDIX F:
Volume Development Intersection Sheets

TRAFFIC VOLUMES AT STUDY INTERSECTIONS

INTERSECTION: S Cranberry Blvd & US 41
COUNT DATE: February 19, 2025
AM PEAK HOUR FACTOR: 0.97
PM PEAK HOUR FACTOR: 0.95

"AM EXISTING TRAFFIC"		EBU	EBL	EBT ⁽¹⁾	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR		
AM Raw Turning Movements		3	162	951	104	13	106	1,147	77	0	113	46	100	0	129	104	386		
Peak Season Correction Factor		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		
AM EXISTING CONDITIONS		3	162	951	104	13	106	1,147	77	0	113	46	100	0	129	104	386		
"PM EXISTING TRAFFIC"		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR		
PM Raw Turning Movements		6	450	1,630	119	23	152	1,243	142	0	123	114	68	0	95	84	301		
Peak Season Correction Factor		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		
PM EXISTING CONDITIONS		6	450	1,630	119	23	152	1,243	142	0	123	114	68	0	95	84	301		
"AM BACKGROUND TRAFFIC"		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR		
Years To Buildout		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
Yearly Growth Rate		2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%		
AM BACKGROUND TRAFFIC GROWTH		0	3	19	2	0	2	23	2	0	2	1	2	0	3	2	8		
AM NON-PROJECT TRAFFIC		3	165	970	106	13	108	1,170	79	0	115	47	102	0	132	106	394		
"PM BACKGROUND TRAFFIC"		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR		
Years To Buildout		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
Yearly Growth Rate		2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%		
PM BACKGROUND TRAFFIC GROWTH		0	9	33	2	0	3	25	3	0	2	2	1	0	2	2	6		
PM NON-PROJECT TRAFFIC		6	459	1,663	121	23	155	1,268	145	0	125	116	69	0	97	86	307		
"PROJECT DISTRIBUTION"		LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Pass-By Distribution	Entering																		
	Exiting																		
Net New Distribution	Entering		40.0%	3.0%									13.0%	3.0%					
	Exiting							34.0%								28.0%	16.0%	9.0%	
"AM PROJECT TRAFFIC"		LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Project Trips	Pass - By																		
	Net New		66	5					76					22	5		63	36	20
AM TOTAL PROJECT TRAFFIC		0	66	5	0	0	0	76	0	0	0	22	5	0	63	36	20		
AM TOTAL TRAFFIC		3	231	975	106	13	108	1,246	79	0	115	69	107	0	195	142	414		
"PM PROJECT TRAFFIC"		LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Trips	Net New		68	5					40					22	5		33	19	11
PM TOTAL PROJECT TRAFFIC			68	5					40					22	5		33	19	11
PM TOTAL TRAFFIC		6	527	1,668	121	23	155	1,308	145	0	125	138	74	0	130	105	318		

TRAFFIC VOLUMES AT STUDY INTERSECTIONS

INTERSECTION: Huge Blvd & US 41
COUNT DATE: February 19, 2025
AM PEAK HOUR FACTOR: 0.99
PM PEAK HOUR FACTOR: 0.95

"AM EXISTING TRAFFIC"		EBU	EBL	EBT ⁽¹⁾	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR		
AM Raw Turning Movements		6	31	1,140	9	5	25	1,267	17				28				56		
Peak Season Correction Factor		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		
AM EXISTING CONDITIONS		6	31	1,140	9	5	25	1,267	17				28				56		
"PM EXISTING TRAFFIC"		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR		
PM Raw Turning Movements		14	82	1,709	10	4	44	1,522	10				42				53		
Peak Season Correction Factor		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		
PM EXISTING CONDITIONS		14	82	1,709	10	4	44	1,522	10				42				53		
"AM BACKGROUND TRAFFIC"		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR		
Years To Buildout		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
Yearly Growth Rate		2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%		
AM BACKGROUND TRAFFIC GROWTH		0	1	23	0	0	1	25	0				1				1		
AM NON-PROJECT TRAFFIC		6	32	1,163	9	5	26	1,292	17				29				57		
"PM BACKGROUND TRAFFIC"		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR		
Years To Buildout		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
Yearly Growth Rate		2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%		
PM BACKGROUND TRAFFIC GROWTH		0	2	34	0	0	1	30	0				1				1		
PM NON-PROJECT TRAFFIC		14	84	1,743	10	4	45	1,552	10				43				54		
"PROJECT DISTRUBUTION"		LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Pass-By Distribution	Entering									-67%	67%								
	Exiting																		67%
	Net New			6%						14%	14%								
Distribution	Entering																		
	Exiting			28%															20%
"AM PROJECT TRAFFIC"		LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Project Trips	Pass - By									-38	38								38
	Net New		10	63						23	23								45
AM TOTAL PROJECT TRAFFIC		0	10	63	0	0	0	-15	61					0					83
AM TOTAL TRAFFIC		6	42	1,226	9	5	26	1,277	78					29					140
"PM PROJECT TRAFFIC"		LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Trips	Net New		10	33						24	24								24
	PM TOTAL PROJECT TRAFFIC		10	33						-14	62								62
PM TOTAL TRAFFIC		14	94	1,776	10	4	45	1,538	72					43					116

TRAFFIC VOLUMES AT STUDY INTERSECTIONS

INTERSECTION: S Cranberry Blvd & Hillsborough Blvd
COUNT DATE: February 19, 2025
AM PEAK HOUR FACTOR: 0.98
PM PEAK HOUR FACTOR: 0.87

"AM EXISTING TRAFFIC"		EBU	EBL	EBT ⁽¹⁾	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR		
AM Raw Turning Movements			22	14	28		134	19	21		46	199	77		24	468	41		
Peak Season Correction Factor		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		
AM EXISTING CONDITIONS			22	14	28		134	19	21		46	199	77		24	468	41		
"PM EXISTING TRAFFIC"		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR		
PM Raw Turning Movements			22	20	15		165	29	28		55	442	215		11	300	17		
Peak Season Correction Factor		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		
PM EXISTING CONDITIONS			22	20	15		165	29	28		55	442	215		11	300	17		
"AM BACKGROUND TRAFFIC"		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR		
Years To Buildout		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
Yearly Growth Rate		2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%		
AM BACKGROUND TRAFFIC GROWTH			0	0	1		3	0	0		1	4	2		0	9	1		
AM NON-PROJECT TRAFFIC			22	14	29		137	19	21		47	203	79		24	477	42		
"PM BACKGROUND TRAFFIC"		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR		
Years To Buildout		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
Yearly Growth Rate		2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%		
PM BACKGROUND TRAFFIC GROWTH			0	0	0		3	1	1		1	9	4		0	6	0		
PM NON-PROJECT TRAFFIC			22	20	15		168	30	29		56	451	219		11	306	17		
"PROJECT DISTRUBUTION"		LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Pass-By Distribution	Entering																		
	Exiting																		
Net New Distribution	Entering													53%		7%			
	Exiting							53%		7%									
"AM PROJECT TRAFFIC"		LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Project Trips	Pass - By																		
	Net New							119			16				88		12		
AM TOTAL PROJECT TRAFFIC				0	0	0		119	0	16		0	0	88		12	0	0	
AM TOTAL TRAFFIC				22	14	29		256	19	37		47	203	167		36	477	42	
"PM PROJECT TRAFFIC"		LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Trips	Net New							63			8				90		12		
								63			8				90		12		
PM TOTAL PROJECT TRAFFIC								63			8				90		12		
PM TOTAL TRAFFIC				22	20	15		231	30	37		56	451	309		23	306	17	

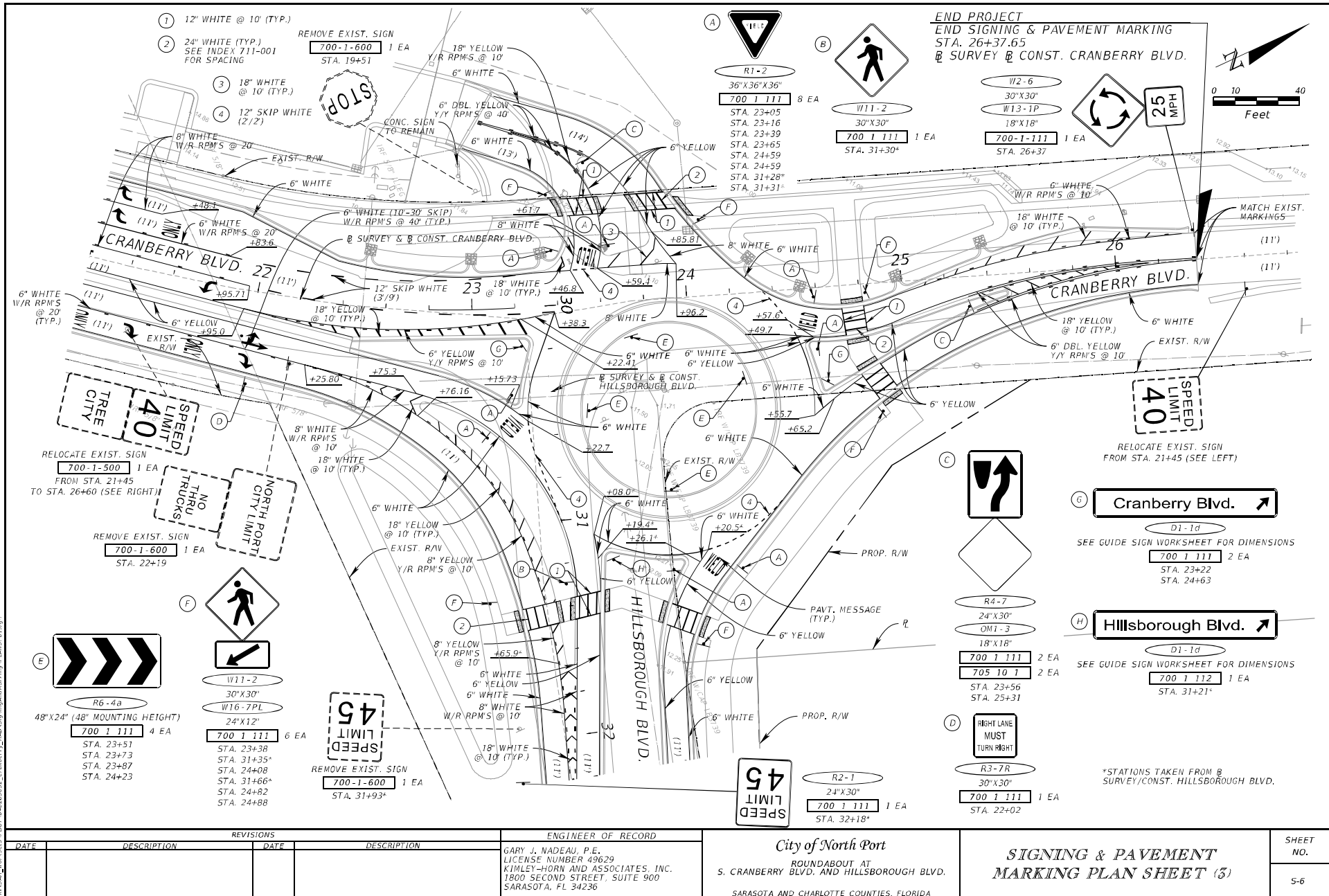
TRAFFIC VOLUMES AT STUDY INTERSECTIONS

INTERSECTION: Driveway 1 & US 41
COUNT DATE: February 19, 2025
AM PEAK HOUR FACTOR: 0.99
PM PEAK HOUR FACTOR: 0.99

"AM EXISTING TRAFFIC"		EBU	EBL	EBT ⁽¹⁾	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR		
AM Raw Turning Movements				1,186				1,329											
Peak Season Correction Factor		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		
AM EXISTING CONDITIONS				1,186				1,329											
"PM EXISTING TRAFFIC"		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR		
PM Raw Turning Movements				1,815				1,589											
Peak Season Correction Factor		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		
PM EXISTING CONDITIONS				1,815				1,589											
"AM BACKGROUND TRAFFIC"		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR		
Years To Buildout		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
Yearly Growth Rate		2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%		
AM BACKGROUND TRAFFIC GROWTH				24				27											
AM NON-PROJECT TRAFFIC				1,210				1,356											
"PM BACKGROUND TRAFFIC"		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR		
Years To Buildout		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
Yearly Growth Rate		2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%		
PM BACKGROUND TRAFFIC GROWTH				36				32											
PM NON-PROJECT TRAFFIC				1,851				1,621											
"PROJECT DISTRUBUTION"		LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Pass-By Distribution Net New Distribution	Entering									-33.0%	33.0%								
	Exiting																		33.0%
	Entering			6.0%							14.0%								
	Exiting			28.0%						20.0%									14.0%
"AM PROJECT TRAFFIC"		LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Project Trips	Pass - By									-18	18								18
	Net New			73						45	23								31
AM TOTAL PROJECT TRAFFIC				73						27	41								49
AM TOTAL TRAFFIC				1,283						1,383	41								49
"PM PROJECT TRAFFIC"		LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Trips	Net New			43						24	24								17
	PM TOTAL PROJECT TRAFFIC			43						6	42								35
PM TOTAL TRAFFIC				1,894						1,627	42								35

APPENDIX G

Roundabout Plans



APPENDIX H

Turn Lane Documentation

Northbound Right-Turn Lane at US 41 and Driveway 1

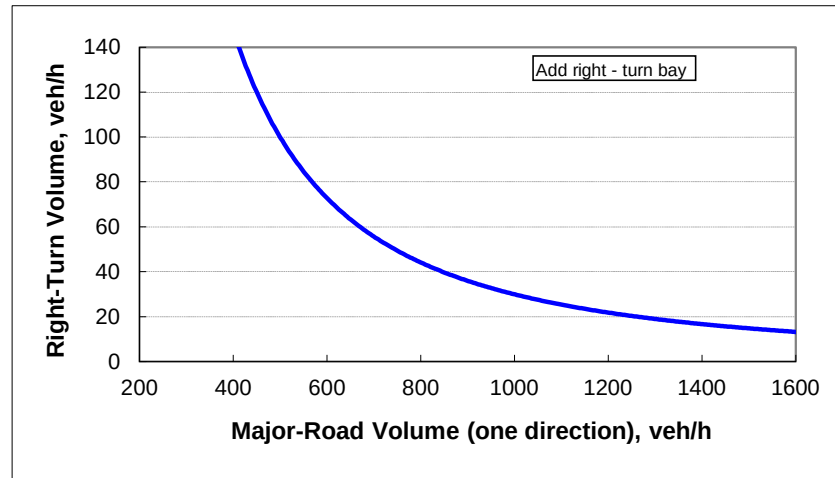
Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

INPUT

Roadway geometry:	4-lane roadway ▾
Variable	Value
Major-road speed, mph:	45
Major-road volume (one direction), veh/h:	1641
Right-turn volume, veh/h:	42

OUTPUT

Variable	Value
Limiting right-turn volume, veh/h:	13
Guidance for determining the need for a major-road right-turn bay for a 4-lane roadway:	
Add right-turn bay.	



NARRATIVE FOR MAJOR MODIFICATION TO PLANNED DEVELOPMENT (PD) REZONING
FOR JBCC DEVELOPMENT, LLC

This is a request for a major modification to the approved Planned Development (PD) at the intersection of US 41/Cranberry/Hillsborough in northern Charlotte County. The property currently has a Future Land Use Map designation of US 41 Mixed Use.

The project will be a mix of residential and commercial uses. Approval has been granted for the residential portion of the PD, for 333 multifamily dwelling units (DRC-23-00163), which is currently under construction. The approved construction covers the entire PD site based on the overall stormwater system for the property. This major modification is to revise the current PD concept plan. A Chick-fil-A restaurant and Tommy's Car Wash are seeking Detail PD concept approval, and the balance of the Commercial will seek PD concept plan approval, and come back to the BCC for final Detail approval.

This request meets the zoning standards of approval as follows:

1. The proposed change is consistent with the comprehensive plan. The PD as proposed in the concept plan is consistent with the US 41 Mixed Use Future Land Use category. There are no comprehensive plan policies that would prohibit the PD to allow the proposed uses on this site.
2. The proposed Concept plan is consistent with the existing land use pattern in adjacent areas. Proposed buffering will ensure compatibility with surrounding uses.
3. There is sufficient capacity in all of the public infrastructure facilities and services to serve the project.
4. The proposed change will not adversely affect living conditions or property values in the adjacent areas. There are no existing residential uses abutting the property.
5. The proposed Concept Plan under the PD zoning will have no negative effect on public safety. There are adequate public facilities to serve the development.

Based on the foregoing, it is respectfully requested the small-scale plan amendment, PD rezoning and concept plan be approved as presented.

Dated: June 10, 2024

/s/ Robert H. Berntsson

Robert H. Berntsson

PROTECTED SPECIES ASSESSMENT

**Cranberry Parcel
Charlotte County, Florida**

March 2022

Prepared by:



4050 Rock Creek Drive □ Port Charlotte, FL 33948
(941) 457-6272
www.IVAenvironmental.com

INTRODUCTION

The following assessment has been prepared to identify on-site vegetative communities and address wildlife species listed by the Florida Fish and Wildlife Conservation Commission (FWC) and U.S. Fish and Wildlife Service (FWS) as endangered, threatened, or species of special concern which may be utilizing the subject property.

The subject property is located in Section 03, Township 40S, Range 21E in Port Charlotte, Florida. Please refer to the attached Location Map.

SITE CONDITIONS

A site inspection was conducted by a qualified staff ecologist in March 2022. During the inspection, temperatures ranged from 75° - 80° F, winds were 5-20 mph, and skies were cloudy to partly cloudy.

VEGETATIVE COMMUNITIES

Field observations, in conjunction with the Charlotte County Soil Survey and aerial photographs, were used to develop a map of the vegetative communities onsite. The following table displays the vegetative associations found on the subject property. The vegetative communities were identified and classified utilizing the Florida Land Use Cover and Forms Classification System (FLUCCS). A description of the communities is also included. Please refer to the attached Protected Species Assessment Map.

FLUCCS ID	FLUCCS DESCRIPTION	ACREAGE
425	Temperate Hardwoods	1.98
740	Disturbed Land	8.44
TOTAL		10.42

FLUCCS 425 – Temperate Hardwoods

This upland habitat contains a canopy of live oak (*Quercus virginiana*), cabbage palm (*Sabal palmetto*), and laurel oak (*Quercus laurifolia*). Midstory and groundcover species present include: grapevine (*Vitis sp.*), greenbrier (*Smilax sp.*), Brazilian pepper (*Schinus terebinthifolius*), St. Augustine grass (*Stenotaphrum secundatum*), poison ivy (*Toxicodendron radicans*), beautyberry (*Callicarpa americana*), bluestems (*Schizachyrium* and *Andropogon spp.*), cogon grass (*Imperata cylindrica*), and goldenrods (*Euthamia* and *Solidago spp.*).

FLUCCS 740 – Disturbed Land

This upland habitat had all native vegetation completely removed in 2016, and lacks a canopy. Midstory and groundcover species present include: bluestems, smutgrass (*Sporobolus indicus*), Mexican clover (*Richardia brasiliensis*), false buttonweed (*Spermacoce sp.*), Bahia grass (*Paspalum notatum*), finger grass (*Digitaria sp.*), goldenrods, lovegrass (*Eragrostis sp.*), carpetgrass (*Axonopus furcatus*), blackberry (*Rubus sp.*), beggar's tick (*Bidens alba*), dog fennel (*Eupatorium capillifolium*), cogongrass (*Imperata cylindrica*), blackroot (*Pterocaulon pycnostachyum*), and thistle (*Cirsium sp.*).

LISTED SPECIES SURVEY METHODOLOGY

To provide approximately 80% coverage of the site, both linear and nonlinear overlapping transects were completed across the parcel per FWC guidelines. Transects were spaced approximately 20 feet apart depending on the visibility within the vegetative association being surveyed. Evidence of protected species was gathered through both direct observation and through observation of signs such as tracks, nests, burrows, and fecal material. If evidence of utilization by a protected species which may require permitting prior to development of the subject property was observed, an aerial photograph was marked depicting the approximate location. In addition, a search of available online resources was conducted to reveal the previously documented presence of listed species which may be utilizing the subject property. These resources included, but were not limited to, the following: FWS Wood Stork Colony Map(s); Charlotte County Natural Resources Department Scrub Jay Territory Search Database; Audubon Eagle Nest Locator Database; FWS Florida Bonneted Bat Consultation Area Map(s); FWS Crested Caracara Consultation Area Map(s); FWS Red-cockaded Woodpecker Consultation Area Map(s); and FWS Panther Consultation Area Map(s). In the event that the site contained suitable habitat for a protected species, or if the site is within close proximity to a verified sighting or consultation area for a protected species, additional scrutiny was given during the inspection relative to that specific species.

LISTED SPECIES ASSESSMENT RESULTS

Search of available online resources revealed that the subject property is located within an 18.6-mile radius designated as Core Foraging Area of several wood stork (*Mycteria americana*) nesting colonies. Each of the documented colonies appears to be greater than 3 miles from the subject property. Under current regulations, the proximity of the off-site nesting colonies is not likely to affect the future development of the subject property.

Search of available online resources revealed that the subject property is located within the Consultation Area of the Florida scrub jay (*Aphelocoma coerulescens*). However, review of the Charlotte County Natural Resources Department Florida Scrub Jay Territory Search Database revealed that the subject property is not a scrub jay review area parcel. No evidence of utilization by the species was observed on the subject property. Therefore, the Florida scrub jay is not likely to affect the future development of the property.

Search of the Audubon Society Bald Eagle Nest Locator website revealed no nests within a one-mile radius of the subject property. No eagles or nests were observed on or around the subject property. Bald eagle should therefore not likely affect the future development of the subject property.

The subject parcel is located within the FWS Consultation Area of the Florida bonneted bat (*Eumops floridanus*). No evidence of utilization by the Florida bonneted bat was observed onsite during the site inspection. The Florida bonneted bat is therefore not likely to affect the future development of the subject property.

Search of available online resources did not reveal documentation of any other listed wildlife species currently utilizing the subject property.

The subject site contains upland habitats which are being utilized by the gopher tortoise (*Gopherus polyphemus*). One (1) potentially occupied gopher tortoise burrow was observed on the parcel. A 100% gopher tortoise survey and relocation permit from the Florida Fish and Wildlife Conservation Commission will be required prior to development of the site if gopher tortoise burrows cannot be avoided during construction.

No other protected species or evidence of protected species utilization which would require permits from the FWC or FWS were observed onsite during the site inspection.



SECTIONS 03; TOWNSHIP 40S; RANGE 21E

NOT TO SCALE

SITE



CHARLOTTE COUNTY, FLORIDA



LOCATION MAP

22-103 / MARCH 10, 2022

CRANBERRY PARCEL

LOCATION MAP

SECTION 03; TOWNSHIP 40S; RANGE 21E



LEGEND

FLUCCS	DESCRIPTIONS	ACREAGE
425	TEMPERATE HARDWOODS	1.98±
740	DISTURBED LAND	8.44±
TOTAL		10.42±

 POTENTIALLY OCCUPIED
GOPHER TORTOISE BURROW (1)

- NOTES:
- 1. FOR PERMIT USE ONLY, NOT FOR CONSTRUCTION.
 - 2. PROJECT BOUNDARY IS APPROXIMATE AND WAS OBTAINED FROM CHARLOTTE COUNTY GIS.
 - 3. MAPPING APPROXIMATE AND BASED ON INTERPRETATION OF 2017 AERIAL PHOTOGRAPHY AT 1"=250' SCALE.
 - 4. THE DELINEATION OF ANY ON-SITE WETLANDS, SURFACE WATERS, AND/OR OTHER SURFACE WATERS IS PRELIMINARY AND SUBJECT TO REVIEW/APPROVAL BY APPLICABLE REGULATORY AGENCIES.

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CRANBERRY PARCEL
PROTECTED SPECIES ASSESSMENT MAP