Agenda Report

2725 Judge Fran Jamieson Way
Viera, FL 32940

Public Hearing

H.8.

2/2/2023

Subject:

NDA Merritt Project Zenith, LLC; and SES Merritt Project Zenith, LLC (Ross Abramson / Kim Rezanka) request a change of zoning classification from BU-1 and BU-2 with two existing BDP's, to PUD and removal of two existing BDP's. (22Z00062) (Tax Accounts 2428002, 2428157, 2428161, & 2428163) (District 2)

Fiscal Impact:

None

Dept/Office:

Planning & Development

Requested Action:

It is requested that the Board of County Commissioners conduct a public hearing to consider a change of zoning classification from BU-1 (General Retail Commercial) and BU-2 (Retail, Warehousing, and Wholesale Commercial) with two existing BDP's (Binding Development Plan), to PUD (Planned Unit Development) and removal of two existing BDP's.

Summary Explanation and Background:

The applicant is requesting a change of zoning classification from BU-1 and BU-2 to PUD on 15.11 acres to build a luxury rental apartment community consisting of 370 multi-family units (25 units per acre) with associated club house, amenities, and parking. In addition, the applicant has included several waivers in their application. The PUD zoning classification is to encourage the development of planned residential neighborhoods and communities that provide a full range of residential types, as well as industrial, commercial and institutional land uses. The PUD contains a Preliminary Development Plan (PDP) as part of the application, which depicts the use and intensity of the project. It is not intended to be specific with details of an engineered site plan. Design elements shown as on the Preliminary Development Plan are required to meet code, unless a waiver has been granted by the Board. Any substantial changes to the PDP during the site planning and permitting phase of development would require Board approval.

In this case, the applicant has requested the following waivers. These waivers will be included in the PUD approval unless declined by the Board:

1) Sec. 62-2101.5 (a) (2); Additional Building Height Setback: A waiver for a 25 ft. reduction in the 2:1 setback requirement to RU-2-30 residential zoning boundary along the south interior property line: Required: 57 ft. / Proposed: 95 ft.

2) Sec. 62-2101.5 (a) (2); Additional Building Height Setback for Building #4: A waiver reduction in the 2:1 setback requirement to RU-2-30 residential zoning boundary along the south interior property line:

Required: 57 ft. / Proposed: ≥ 217 ft.

In addition, the applicant has requested the following waivers to Chapter 62, Article VI (Zoning Regulations), regarding open space/recreation for the PUD, but it should be included in the request as follows:

3) Sec. 62-1446(c); Stipulates that in multi-family developments a minimum of 25% of a portion of the gross site acreage shall be delineated as tracts for common recreation and open space. Regardless of the above, common recreation open space shall be provided at a minimum rate of 1.5 acres per 100 residential units. Required open space may be satisfied by either active recreation or passive recreation open space, as defined in Sec. 62-1102.

4) Sec. 62-2957c(1); Access Management: Code requires 350 dwelling units or more requires three access points. The applicant is requesting to reduce the number of access points from three to two.

The developed character of the surrounding area is commercial, multi-family residential and single-family residential. The closest multi-family residential development is a condominium complex located immediately south of the subject property which retains RU-2-30 (20) zoning that limits density to 20 units per acre. Except for the GU-zoned lot to the south, the multi-family use proposed in the PUD appears to buffer the adjacent commercial from the multi-family use to the south.

The Board may wish to consider if the request is consistent and compatible with the surrounding area and whether the waiver requests are appropriate.

The Board may wish to consider the following conditions to mitigate potential impacts of the development:

1. Prior to site plan approval, the applicant shall demonstrate the site has the ability to use the alum pond/regional stormwater system. Should the site not be able to use said pond, site shall be redesigned to accommodate on-site retention, as required by Code of Ordinances of Brevard County, Section 62-3751, Exhibit A - Stormwater Management Criteria as well as the St. Johns River Water Management District;
2. Prior to site plan approval, the applicant shall depict three entrances connected to the county roadway system on the PDP, as required per Sec. 62-2957(c)(1), if the waiver is not granted;
3. If the waiver is not approved, the applicant shall depict a minimum of 5.55 acres of Common Recreation Open Space on the approved site plan, as required per Sec. 62-1446(c) and meeting the definitions in Sec. 62-1102.
4. Prior to site plan approval, applicant to provide a traffic study demonstrating any necessary roadway improvements based on anticipated traffic volumes;
5. All design elements shown on the PDP require conformance with Brevard County code and requires permits;
6. Provide an updated PDP depicting the correct waivers granted; and
7. Should any of the aforementioned redesign be deemed a substantial change by the zoning official, a PDP Amendment would require Board Approval.

On January 9, 2023, the Planning & Zoning Board heard the request and recommended approval of the zoning change to PUD, removing the two existing BDP's, and with the proposed 7 conditions, and an added 8th condition of one access to be provided on Harbor Woods Drive and one access to be provided on Fortenberry Road.

Clerk to the Board Instructions:

Upon receipt of resolution, please execute and return a copy to Planning & Development.

Resolution 22Z00062

On motion by Commissioner Goodson, seconded by Commissioner Zonka, the following resolution was adopted by a unanimous vote:

WHEREAS, NDA Merritt Project Zenith, LLC; and SES Merritt Project Zenith, LLC, have requested a change of zoning classification from BU-1 (General Retail Commercial) and BU-2 (Retail, Warehousing, and Wholesale Commercial), with two existing BDP's (Binding Development Plan), to PUD (Planned Unit Development), with waivers, and removal of two existing BDP's, on property described as: See attached; and

WHEREAS, a public hearing of the Brevard County Planning and Zoning Board was advertised and held, as required by law, and after hearing all interested parties and considering the adjacent areas, the Brevard County Planning and Zoning Board recommended that the application be approved with an added 8th condition of one access on Fortenberry Road and one access on Harbor Woods Boulevard; and

WHEREAS, the Board, after considering said application and the Planning and Zoning Board's recommendation, and hearing all interested parties, and after due and proper consideration having been given to the matter, find that the application should be approved as recommended with the following two waivers and eight conditions: 1.) A waiver from Section 62-1446(c), to allow a 1.1-acre reduction to open space. Required open space may be satisfied by either active recreation or passive recreation open space, as defined in Section 62-1102; 2.) A waiver from Section 62-2957(c)(1), to allow a reduction of the number of access points from three to two. Conditions: 1.) Prior to site plan approval, the applicant shall demonstrate the site has the ability to use the alum pond/regional stormwater system. Should the site not be able to use said pond, site shall be redesigned to accommodate on-site retention, as required by the Code of Ordinances of Brevard County, Section 62-3751, Exhibit A - Stormwater Management Criteria as well as the St. Johns River Water Management District; 2.) Prior to site plan approval, the applicant shall depict three entrances connected to the county roadway system on the PDP, as required per Sec. 62-2957(c)(1), if the waiver is not granted; 3.) If the waiver is not approved, the applicant shall depict a minimum of 5.55 acres of Common Recreation Open Space on the approved site plan, as required per Sec. 62-1446(c) and meeting the definitions in Sec. 62-1102; 4.) Prior to site plan approval, applicant to provide a traffic study demonstrating any necessary roadway improvements based on anticipated traffic volumes; 5.) All design elements shown on the PDP require conformance with Brevard County code and requires permits; 6.) Provide an updated PDP depicting the correct waivers granted; 7.) Should any of the aforementioned redesign be deemed a substantial change by the zoning official, a PDP Amendment would require Board Approval; and 8.) To allow one main access point from Harbor Woods Blvd., and one secondary access point from Fortenberry Rd.; now therefore,

BE IT RESOLVED by the Board of County Commissioners of Brevard County, Florida, that the requested change of zoning classification from BU-1 and BU-2, with two existing BDP's, to PUD, with waivers, and removal of two existing BDP's, be approved as recommended, with the following two waivers and eight conditions: 1.) A waiver from Section 62-1446(c), to allow a 1.1-acre reduction to open space. Required open space may be satisfied by either active recreation or passive recreation open space, as defined in Section 62-1102; 2.) A waiver from Section 62-2957(c)(1), to allow a reduction of the number of access points from three to two. Conditions: 1.) Prior to site plan approval, the applicant shall demonstrate the site has the ability to use the alum pond/regional stormwater system. Should the site not be able to use said pond, site shall be redesigned to accommodate on-site retention, as required by the Code of Ordinances of Brevard County, Section 62-3751, Exhibit A - Stormwater Management Criteria as well as the St. Johns River Water Management District; 2.) Prior to site plan approval, the applicant shall depict three entrances connected to the county roadway system on the PDP, as required per Sec. 62-2957(c)(1), if the waiver is not granted; 3.) If the waiver is not approved, the applicant shall depict a minimum of 5.55 acres of Common Recreation Open

Space on the approved site plan, as required per Sec. 62-1446(c) and meeting the definitions in Sec. 62-1102; 4.) Prior to site plan approval, applicant to provide a traffic study demonstrating any necessary roadway improvements based on anticipated traffic volumes; 5.) All design elements shown on the PDP require conformance with Brevard County code and requires permits; 6.) Provide an updated PDP depicting the correct waivers granted; 7.) Should any of the aforementioned redesign be deemed a substantial change by the zoning official, a PDP Amendment would require Board Approval; and 8.) To allow one main access point from Harbor Woods Blvd., and one secondary access point from Fortenberry Rd. The Planning and Development Director, or designee, is hereby directed to make this change on the official zoning maps of Brevard County, Florida.

BE IT FURTHER RESOLVED that this resolution shall become effective as of February 2, 2023.

BOARD OF COUNTY COMMISSIONERS
Brevard County, Florida

Rita Pritchett, Chair
Brevard County Commission
As approved by the Board on February 2, 2023.

ATTEST:

RACHEL SADOFF, CLERK

(SEAL)

P&Z Board Hearing – January 9, 2023

Please note: A CUP (Conditional Use Permit) will generally expire on the three-year anniversary of its approval if the use is not established prior to that date. CUPs for Towers and Antennas shall expire if a site plan for the tower is not submitted within one year of approval or if construction does not commence within two years of approval. A Planned Unit Development Preliminary Development Plan expires if a final development plan is not filed within three years. **The granting of this zoning does not guarantee physical development of the property. At the time of development, said development must be in accordance with the criteria of the Brevard County Comprehensive Plan and other applicable laws and ordinances.**

22Z00062 (cont.)
Legal Description:

Parcel 1: A portion of Section 06, Township 24S, Range 36E, Brevard County, Florida, being a portion of the lands described in ORB 1450, Page 218, ORB 2304, Page 896, ORB 1187, Page 832, and ORB 2302, Pages 908 & 914, all of the Public Records of Brevard County, Florida, as follows: Commence at the SW corner of said Section 36, Township 24S. Range 36E; thence run N00deg33'33"W, along the west line of said Section 36 for a distance of 1,312.75 ft. to a point on the south line of the north 14 ft. of the SW ¼ of the SW ¼ of said Section 36 and the SW corner of said ORB 1450, Page 218; thence run N09deg09'48"E, along said south line for a distance of 25 ft. to the point of beginning; thence run N00deg33'33"W, a distance of 25 ft. from and parallel to the west line of said Section 36 for distance of 314 ft. to the north line of said ORB 150, Page 218, and the north line of the south 300 ft. of the NW ¼ of the SW ¼ of said Section 36; thence run N09deg09'48"E, along said north line for a distance of 885.48 ft.; thence run N27deg58'04"E, along the northwesterly line of said ORB 1450, Page 218, for a distance of 254.11 ft. to a point on the southerly right-of-way of Fortenberry Ave., a 60-ft. right-of-way, and the northerly line of said ORB 1450, Page 218, said point also being on a curve to the left having a radius of 602.96 ft. and a radial bearing of N27deg56'04"E; thence run southeasterly along said right-of-way and arc of curve for a distance of 173.05 ft. through a central angle of 16deg26'37"; thence run S12deg46'26"W, for a distance of 65 ft.; thence run S00deg34'07"E, 15 ft. from and parallel to the west line of the east 126 ft. of the SW ¼ of said Section 36, for a distance of 399.55 ft.; thence run S37deg12'06W, for a distance of 35.61 ft. to a point on the south line of said ORB 2304, Page 896 and the south line of said north 14 ft. to the SW ¼ of the SW ¼ of Section 36; thence run S89deg09'48"W, along said south line 14 ft. from and parallel to the north line of the SW ¼ of the SW ¼ of said Section 36 for a distance of 695 ft. to the south line of said ORB 1450, Page 28; thence continue S89deg09'48"W, along the south line of ORB 1450, Page 218 and the south line of said north 14 ft. of the SW ¼ of the SW ¼ of Section 36, for a distance of 425 ft. to the point of beginning. Parcel 2: A parcel of land lying in Section 36, Township 24S, Range 36E, Tallahassee Base Meridian, Brevard County, Florida, more fully described as follows: Commence at the intersection of the south right-of-way of Fortenberry Rd. and the east right-of-way line of Plumosa Ave.; thence run S00deg34'14"E, along said east right-of-way line, a distance of 917.98 ft.; thence run N89deg09'02"E, a distance of 650.87 ft.; thence run N15deg54'22"E, a distance of 267.97 ft. to the point on the aforementioned south right-of-way line of Fortenberry Rd.; thence run S45deg32'32"E, along said south right-of-way line, a distance of 25.05 ft.; thence run S15deg54'22"W, a distance of 250 ft. to the point of beginning of this description containing 0.13 acres, more or less; and being subject to any easements and/or right-of-way of record. Parcel 3: A parcel of land lying in Section 36, Township 24S, Range 36E, Brevard County, Florida, being more particularly described as follows: Commence at the intersection of the southerly right-of-way line of Fortenberry Rd. and the easterly right-of-way line of Plumosa Ave.; thence run S00deg34'14"E, along said easterly right-of-way line, a distance of 917.98 ft.; thence run N89deg09'02"E, a distance of 336.14 ft. to the point of beginning of the lands hereon described; thence run N15deg54'22"E, a distance of 692.39 ft. to a point on said southerly right-of-way line of Fortenberry Rd.; thence run S45deg32'32"E, along said southerly right-of-way line, a distance of 315.35 ft.; thence run S15deg54'22"W, a distance of 267.97 ft.; thence run S74deg05'38"E, a distance of 22 ft.; thence run S15deg54'22"W, a distance of 189.68 ft.; thence run S89deg09'02"W, a distance of 312.26 ft. to the point of beginning. Parcel 4: A parcel of land lying in Section 36, Township 24S, Range 36E, Tallahassee Base Meridian, Brevard County, Florida, more fully described as follows: Commence at the intersection of the south right-of-way line of Fortenberry Rd. and the east right-of-way line of Plumosa Ave.; thence run S00deg34'14", along said east right-of-way line, a distance of 917.98 ft.; thence run N89deg09'02"E, a distance of 650.67 ft. to the point of beginning; thence run N15deg54'22"E, a distance of 439.68 ft. to a point on the aforementioned south right-of-way line of Fortenberry Rd.; thence run S45deg32'32"E, along said south right-of-way line, a distance of 129.86 ft.; thence run S14deg09'12", a distance of 340.28 ft.; thence run S89deg09'02"W, a distance of 130

22Z00062
Legal Description (cont.):

ft. to the point of beginning; and a parcel of land lying in Section 36, Township 24S, Range 36 E, Tallahassee Base Meridian, Brevard County, Florida, more fully described as follows: Commence at the intersection of the south right-of-way line of Fortenberry Rd. and the east right-of-way line of Plumosa Ave.; thence run S00deg34'14", a distance of 917.98 ft.; thence run N89deg09'02"E, a distance of 780.67 ft. to the point of beginning; thence run N14deg09'12"E, a distance of 340.28 ft. to a point on the aforementioned south right-of-way line of Fortenberry Rd.; thence run S45deg32'32"E, along said south right-of-way line, a distance of 202 ft. to the point of curvature of a 602.96-ft. radius circular curve concave to the northeast; thence along an arc of said curve and said south right-of-way line, through a central angle of 16deg29'34", an arc distance of 173.56 ft.; thence run S27deg56'19"W, a distance of 254.45 ft.; thence run S89deg09'02"W, a distance of 105 ft. to the point of beginning. 15.11 +/- acres, located on the southwest corner of Fortenberry Rd. and Harbour Woods Blvd. (No assigned address. In the Merritt Island area.)

ADMINISTRATIVE POLICIES OF THE FUTURE LAND USE ELEMENT

Administrative Policies in the Future Land Use Element establish the expertise of staff with regard to zoning land use issues and set forth criteria when considering a rezoning action or request for Conditional Use Permit, as follows:

Administrative Policy 1

The Brevard County zoning official, planners and the Director of the Planning and Development, however designated, are recognized as expert witnesses for the purposes of Comprehensive Plan amendments as well as zoning, conditional use, special exception, and variance applications.

Administrative Policy 2

Upon Board request, members of the Brevard County planning and zoning staff shall be required to present written analysis and a recommendation, which shall constitute an expert opinion, on all applications for zoning, conditional uses, comprehensive plan amendments, vested rights, or other applications for development approval that come before the Board of County Commissioners for quasi-judicial review and action. The Board may table an item if additional time is required to obtain the analysis requested or to hire an expert witness if the Board deems such action appropriate. Staff input may include the following:

Criteria:

A. Staff shall analyze an application for consistency or compliance with comprehensive plan policies, zoning approval criteria and other applicable written standards.

B. Staff shall conduct site visits of property which are the subject of analysis and recommendation. As part of the site visit, the staff shall take a videotape or photographs where helpful to the analysis and conduct an inventory of surrounding existing uses. Aerial photographs shall also be used where they would aid in an understanding of the issues of the case.

C. In cases where staff analysis is required, both the applicant and the staff shall present proposed findings of fact for consideration by the Board.

D. For development applications where a specific use has not been proposed, the worst case adverse impacts of potential uses available under the applicable land use classification shall be evaluated by the staff.

Administrative Policy 3

Compatibility with existing or proposed land uses shall be a factor in determining where a rezoning or any application involving a specific proposed use is being considered. Compatibility shall be evaluated by considering the following factors, at a minimum:

Criteria:

A. Whether the proposed use(s) would have hours of operation, lighting, odor, noise levels, traffic, or site activity that would significantly diminish the enjoyment of, safety or quality of life in existing neighborhoods within the area which could foreseeably be affected by the proposed use.

B. Whether the proposed use(s) would cause a material reduction (five percent or more) in the value of existing abutting lands or approved development.

C. Whether the proposed use(s) is/are consistent with an emerging or existing pattern of surrounding development as determined through analysis of:

1. historical land use patterns;

2. actual development over the immediately preceding three years; and

3. development approved within the past three years but not yet constructed.

D. Whether the proposed use(s) would result in a material violation of relevant policies in any elements of the Comprehensive Plan.

Administrative Policy 4

Character of a neighborhood or area shall be a factor for consideration whenever a rezoning or any application involving a specific proposed use is reviewed. The character of the area must not be materially or adversely affected by the proposed rezoning or land use application. In evaluating the character of an area, the following factors shall be considered:

Criteria:

A. The proposed use must not materially and adversely impact an established residential neighborhood by introducing types of intensity of traffic (including but not limited to volume, time of day of traffic activity, type of vehicles, et cetera), parking, trip generation, commercial activity or industrial activity that is not already present within the identified boundaries of the neighborhood.

B. In determining whether an established residential neighborhood exists, the following factors must be present:

1. The area must have clearly established boundaries, such as roads, open spaces, rivers, lakes, lagoons, or similar features.

2. Sporadic or occasional neighborhood commercial uses shall not preclude the existence of an existing residential neighborhood, particularly if the commercial use is non-conforming or pre-dates the surrounding residential use.

3. An area shall be presumed not to be primarily residential but shall be deemed transitional where multiple commercial, industrial or other non-residential uses have been applied for and approved during the previous five (5) years.

Administrative Policy 5

In addition to the factors specified in Administrative Policies 2, 3, and 4, in reviewing a rezoning, conditional use permit or other application for development approval, the impact of the proposed use or uses on transportation facilities either serving the site or impacted by the

use(s) shall be considered. In evaluating whether substantial and adverse transportation impacts are likely to result if an application is approved, the staff shall consider the following:

Criteria:

A. Whether adopted levels of services will be compromised;

B. Whether the physical quality of the existing road system that will serve the proposed use(s) is sufficient to support the use(s) without significant deterioration;

C. Whether the surrounding existing road system is of sufficient width and construction quality to serve the proposed use(s) without the need for substantial public improvements;

D. Whether the surrounding existing road system is of such width and construction quality that the proposed use(s) would realistically pose a potential for material danger to public safety in the surrounding area;

E. Whether the proposed use(s) would be likely to result in such a material and adverse change in traffic capacity of a road or roads in the surrounding area such that either design capacities would be significantly exceeded or a de facto change in functional classification would result;

F. Whether the proposed use(s) would cause such material and adverse changes in the types of traffic that would be generated on the surrounding road system, that physical deterioration of the surrounding road system would be likely;

G. Whether projected traffic impacts of the proposed use(s) would materially and adversely impact the safety or welfare of residents in existing residential neighborhoods.

Administrative Policy 6

The use(s) proposed under the rezoning, conditional use or other application for development approval must be consistent with, (a), all written land development policies set forth in these administrative policies; and (b), the future land use element, coastal management element, conservation element, potable water element, sanitary sewer element, solid waste management element, capital improvements element, recreation and open space element, surface water element, and transportation elements of the comprehensive plan.

Administrative Policy 7

Proposed use(s) shall not cause or substantially aggravate any, (a), substantial drainage problem on surrounding properties; or (b), significant, adverse and unmitigatable impact on significant natural wetlands, water bodies or habitat for listed species.

Administrative Policy 8

These policies, the staff analysis based upon these policies, and the applicant's written analysis, if any, shall be incorporated into the record of every quasi-judicial review application for development approval presented to the Board including rezoning, conditional use permits, and vested rights determinations.

Section 62-1151(c) of the Code of Ordinances of Brevard County directs, "The planning and zoning board shall recommend to the board of county commissioners the denial or approval of each application for amendment to the official zoning maps based upon a consideration of the following factors:

(1) The character of the land use of the property surrounding the property being considered.

(2) The change in conditions of the land use of the property being considered and the surrounding property since the establishment of the current applicable zoning classification, special use or conditional use.

(3) The impact of the proposed zoning classification or conditional use on available and projected traffic patterns, water and sewer systems, other public facilities and utilities and the established character of the surrounding property.

(4) The compatibility of the proposed zoning classification or conditional use with existing land use plans for the affected area.

(5) The appropriateness of the proposed zoning classification or conditional use based upon a consideration of the applicable provisions and conditions contained in this article and other applicable laws, ordinances and regulations relating to zoning and land use regulations and based upon a consideration of the public health, safety and welfare.

The minutes of the planning and zoning board shall specify the reasons for the recommendation of approval or denial of each application."

CONDITIONAL USE PERMITS (CUPs)
In addition to the specific requirements for each Conditional Use Permit (CUP), Section 62-1901 provides that the following approval procedure and general standards of review are to be applied to all CUP requests, as applicable.

(b) Approval procedure. An application for a specific conditional use within the applicable zoning classification shall be submitted and considered in the same manner and according to the same procedure as an amendment to the official zoning map as specified in Section 62-1151. The approval of a conditional use shall authorize an additional use for the affected parcel of real property in addition to those permitted in the applicable zoning classification. The initial burden is on the applicant to demonstrate that all applicable standards and criteria are met. Applications which do not satisfy this burden cannot be approved. If the applicant meets its initial burden, then the Board has the burden to show, by substantial and competent evidence, that the applicant has failed to meet such standards and the request is adverse to the public interest. As part of the approval of the conditional use permit, the Board may prescribe appropriate and reasonable conditions and safeguards to reduce the impact of the proposed use on adjacent and nearby properties or the neighborhood. A nearby property, for the purpose of this section, is defined as any property which, because of the character of the proposed use, lies within the area which may be substantially and adversely impacted by such use. In stating grounds in

support of an application for a conditional use permit, it is necessary to show how the request fulfills both the general and specific standards for review. The applicant must show the effect the granting of the conditional use permit will have on adjacent and nearby properties, including, but not limited to traffic and pedestrian flow and safety, curb-cuts, off-street loading and parking, off-street pickup of passengers, odors, glare and noise, particulates, smoke, fumes, and other emissions, refuse and service areas, drainage, screening and buffering for protection of adjacent and nearby properties, and open space and economic impact on nearby properties. The applicant, at his discretion, may choose to present expert testimony where necessary to show the effect of granting the conditional use permit.

(c) General Standards of Review.

(1) The planning and zoning board and the board of county commissioners shall base the denial or approval of each application for a conditional use based upon a consideration of the factors specified in Section 62-1151(c) plus a determination whether an application meets the intent of this section.

a. The proposed conditional use will not result in a substantial and adverse impact on adjacent and nearby properties due to: (1), the number of persons anticipated to be using, residing or working under the conditional use; (2), noise, odor, particulates, smoke, fumes and other emissions, or other nuisance activities generated by the conditional use; or (3), the increase of traffic within the vicinity caused by the proposed conditional use.

b. The proposed use will be compatible with the character of adjacent and nearby properties with regard to use, function, operation, hours of operation, type and amount of traffic generated, building size and setback, and parking availability.

c. The proposed use will not cause a substantial diminution in value of abutting residential property. A substantial diminution shall be irrebuttably presumed to have occurred if abutting property suffers a 15% reduction in value as a result of the proposed conditional use. A reduction of 10% of the value of abutting property shall create a rebuttable presumption that a substantial diminution has occurred. The Board of County Commissioners carries the burden to show, as evidenced by either testimony from or an appraisal conducted by an M A I certified appraiser, that a substantial diminution in value would occur. The applicant may rebut the findings with his own expert witnesses.

(2) The following specific standards shall be considered, when applicable, in making a determination that the general standards specified in subsection (1) of this section are satisfied:

a. Ingress and egress to the property and proposed structures thereon, with particular reference to automotive and pedestrian safety and convenience, traffic flow and control, and access in case of fire and catastrophe, shall be: (1), adequate to serve the proposed use without burdening adjacent and nearby uses, and (2), built to applicable county standards, if any. Burdening adjacent and nearby uses means increasing existing traffic on the closest collector or arterial road by more than 20%, or 10% if the new traffic is primarily comprised of heavy vehicles, except where the affected road is at Level of Service A or B. New traffic generated by the proposed use shall not cause the adopted level of service for transportation on applicable roadways, as determined by applicable Brevard County standards, to be exceeded. Where the design of a public road to be used by the proposed use is physically inadequate to handle the numbers, types or weights of vehicles expected to be generated by the proposed use without damage to the road, the conditional use permit cannot be approved without a commitment to improve the road to a standard adequate to handle the proposed traffic, or to maintain the road through a maintenance bond or other means as required by the Board of County Commissioners.

b. The noise, glare, odor, particulates, smoke, fumes or other emissions from the conditional use shall not substantially interfere with the use or enjoyment of the adjacent and nearby property.

c. Noise levels for a conditional use are governed by Section 62-2271.

d. The proposed conditional use shall not cause the adopted level of service for solid waste disposal applicable to the property or area covered by such level of service, to be exceeded.

e. The proposed conditional use shall not cause the adopted level of service for potable water or wastewater applicable to the property or the area covered by such level of service, to be exceeded by the proposed use.

f. The proposed conditional use must have existing or proposed screening or buffering, with reference to type, dimensions and character to eliminate or reduce substantial, adverse nuisance, sight, or noise impacts on adjacent and nearby properties containing less intensive uses.

g. Proposed signs and exterior lighting shall not cause unreasonable glare or hazard to traffic safety, or interference with the use or enjoyment of adjacent and nearby properties.

h. Hours of operation of the proposed use shall be consistent with the use and enjoyment of the properties in the surrounding residential community, if any. For commercial and industrial uses adjacent to or near residential uses, the hours of operation shall not adversely affect the use and enjoyment of the residential character of the area.

i. The height of the proposed use shall be compatible with the character of the area, and the maximum height of any habitable structure shall be not more than 35 feet higher than the highest residence within 1,000 feet of the property line.

j. Off-street parking and loading areas, where required, shall not be created or maintained in a manner which adversely impacts or impairs the use and enjoyment of adjacent and nearby properties. For existing structures, the applicant shall provide competent, substantial evidence to demonstrate that actual or anticipated parking shall not be greater than that which is approved as part of the site pan under applicable county standards.

FACTORS TO CONSIDER FOR A REZONING REQUEST
Section 62-1151(c) sets forth factors to consider in connection with a rezoning request, as follows:

"The planning and zoning board shall recommend to the board of county commissioners the denial or approval of each application for amendment to the official zoning maps based upon a consideration of the following factors:

(1) The character of the land use of the property surrounding the property being considered.

(2) The change in conditions of the land use of the property being considered and the surrounding property since the establishment of the current applicable zoning classification, special use or conditional use.

(3) The impact of the proposed zoning classification or conditional use on available and projected traffic patterns, water and sewer systems, other public facilities and utilities and the established character of the surrounding property.

(4) The compatibility of the proposed zoning classification or conditional use with existing land use plans for the affected area.

(5) The appropriateness of the proposed zoning classification or conditional use based upon a consideration of the applicable provisions and conditions contained in this article and other applicable laws, ordinances and regulations relating to zoning and land use regulations and based upon a consideration of the public health, safety and welfare."

These staff comments contain references to zoning classifications found in the Brevard County Zoning Regulations, Chapter 62, Article VI, Code of Ordinances of Brevard County. These references include brief summaries of some of the characteristics of that zoning classification. Reference to each zoning classification shall be deemed to incorporate the full text of the section or sections defining and regulating that classification into the Zoning file and Public Record for that item.

These staff comments contain references to sections of the Code of Ordinances of Brevard County. Reference to each code section shall be deemed to incorporate this section into the Zoning file and Public Record for that item.

These staff comments contain references to Policies of the Brevard County Comprehensive Plan. Reference to each Policy shall be deemed to incorporate the entire Policy into the Zoning file and Public Record for that item.

These staff comments refer to previous zoning actions which are part of the Public Records of Brevard County, Florida. These records will be referred to by reference to the file number. Reference to zoning files are intended to make the entire contents of the cited file a part of the Zoning file and Public Record for that item.

DEFINITIONS OF CONCURRENCY TERMS

Maximum Acceptable Volume (MAV): Maximum acceptable daily volume that a roadway can carry at the adopted Level of Service (LOS).

Current Volume: Building permit related trips added to the latest TPO (Transportation Planning Organization) traffic counts.

Volume with Development (VOL W/DEV): Equals Current Volume plus trip generation projected for the proposed development.

Volume/Maximum Acceptable Volume (VOL/MAV): Equals the ratio of current traffic volume to the maximum acceptable roadway volume.

Volume/Maximum Acceptable Volume with Development (VOL/MAV W/DEV): Ratio of volume with development to the Maximum Acceptable Volume.

Acceptable Level of Service (CURRENT LOS): The Level of Service at which a roadway is currently operating.

Level of Service with Development (LOS W/DEV): The Level of Service that a proposed development may generate on a roadway.

BOARD OF COUNTY COMMISSIONERS

Planning and Development Department
2725 Judge Fran Jamieson Way
Building A, Room 114
Viera, Florida 32940
(321)633-2070 Phone / (321)633-2074 Fax
https://www.brevardfl.gov/PlanningDev

STAFF COMMENTS
22Z00062

NDA Merritt Project Zenith, LLC and SES Merritt Project Zenith, LLC

BU-1 (General Retail Commercial) and BU-2 (Retail, Warehousing and Wholesale Commercial) with BDPs to PUD (Planned Unit Development) with removal of BDPs and a CUP for Commercial Entertainment and Amusement Enterprises

Tax Account Number(s): 2428002, 2428163, 2428157, 2428161

Parcel I.D.: 24-36-36-00-518, 24-36-36-00-549, 24-36-36-00-543, 24-36-36-00-547

Location: South side of Fortenberry Road approximately 640 feet east of S. Plumosa Street (District 2)

Acreage: 15.11 acres

Planning & Zoning Board: 1/09/2023
Board of County Commissioners: 2/02/2023

Consistency with Land Use Regulations

- Current zoning can be considered under the Future Land Use Designation, Section 62-1255.
- The proposal can be considered under the Future Land Use Designation, Section 62-1255.
- The proposal would maintain acceptable Levels of Service (LOS) (XIII 1.6.C)

	CURRENT	PROPOSED
Zoning	BU-1, BU-2	PUD
Potential*	4 SF units	370 MF units
Can be Considered under the Future Land Use Map	YES CC	YES CC

* Zoning potential for concurrency analysis purposes only, subject to applicable land development regulations.

Background and Purpose of Request

The applicant is requesting a change of zoning classification from BU-1 (General Retail Commercial) and BU-2 (Retail, Warehousing and Wholesale Commercial) to PUD (Planned Unit Development) on 15.11 acres to build a luxury rental apartment community consisting of 370 multifamily units with associated club house, amenities, and parking.

The 15.11-acre subject property consists of four (4) contiguous parcels located within the Merritt Island Redevelopment Agency (MIRA). The site is currently developed with one commercial building and a warehouse. The site has frontage along two Brevard County maintained road right-of-ways: Fortenberry Road (to the north) and S. Plumosa Street (to the west). The proposed PDP does not

show a connection to S. Plumosa Street at this time. The PDP also shows a connection to Harbor Woods Boulevard, which **is not** a County maintained roadway.

The Planned Unit Development (PUD), as provided in sec. 62-1442, *is a concept which encourages and permits variation in development by allowing deviation in development standards such as, but not limited to, lot size, bulk or type of dwellings, density, lot coverage and open space from that required in any one residential zoning classification under this article. The purpose of a planned unit development is to encourage the development of planned residential neighborhoods and communities that provide a full range of residence types, as well as industrial, commercial and institutional land uses. It is recognized that only through ingenuity, imagination and flexibility can residential developments be produced which are in keeping with the intent of this subdivision while departing from the strict application of conventional use and dimension requirements of other zoning districts or other land development regulations in articles II, VI, VII, VIII, IX, or XIII of chapter 62 of the Brevard County Code.*

In order to accomplish the objectives of this section, the applicant of a PUD may propose, and the county may consider, alternative development standards to any land development regulation in articles VI or VII of chapter 62 of the Brevard County Code.

The applicant shall justify the proposed alternative development standard(s) by describing how it promotes a development form facilitating the goals and objectives of article VI of this chapter and does not violate the purpose of this chapter for the protection of the public health, safety and welfare in the subdivision of land.

Applicant's response:

The redevelopment concept meets the future vision of developing high-quality multifamily residential that could serve as a catalyst to the Merritt Island Town Center area. The PUD encourages the development of a planned "Luxury Apartment Community" that will serve the local community by providing a full range of rental apartments. The increased flexibility, as shown in the PDP, will allow for the best resident experience and exceptional design of the proposed Apartment Community elements while remaining consistent with the future land use map of the Brevard County Comprehensive Plan. The setback waiver for building number five is necessary to accommodate the residential building design within the limited available space.

The PDP is a mechanism to request such waivers. *The applicant shall specifically include the alternative development standard(s) in the preliminary development plan, and shall present its justification to the planning and zoning board and board of county commissioners in public hearing.*

Substantial (major) changes to the PDP require Board approval. As provided in sec. 62-1448(c): *If, after the initial approval of the PUD preliminary development plan, should the owner or applicant or his successors desire to make any changes to the preliminary development plan, such changes shall first be submitted to the county. If the zoning official deems there is a substantial change or deviation from that which is shown on the preliminary development plan, the owner or applicant shall be requested to return to the board of county commissioners where it is determined that the public interest warrants such procedure. For purposes of this subsection, a substantial change shall be defined as any change which increases the density or intensity of the project or decreases the amount of buffer areas from adjacent property or decreases the amount of common open space. The*

zoning official shall have the authority to approve minor changes not determined by the director to be substantial as defined in this subsection.

The Preliminary Development Plan (PDP) is part of the zoning application for a PUD, which depicts the use and intensity of the project. It is not intended to be specific with respect to engineering details that are normally reviewed at the Final Development Plan (site plan) stage of review. Design elements shown as on the Preliminary Development Plan are required to meet code, unless a waiver has been granted by the Board. Substantial changes would require Board approval.

Specific waivers to land development regulations must be stated on the preliminary development plan and must be verbally requested by the applicant at the public hearing. Unless a waiver is specifically requested by the applicant and specifically approved by the Board, it will not be assumed to have been approved.

In this case, the applicant has requested two waivers for additional building setbacks, generally described below, which based upon the **revised PDP are not needed** to facilitate the proposed uses. These waivers will be included in the Board's approval unless declined by the Board.

The applicant has requested the following waivers to Chapter 62, Article VI (Zoning Regulations) for the PUD:

1) Sec. 62-2101.5 (a) (2); Additional Building Height Setback; A waiver for a 25 ft. reduction in the 2:1 setback requirement to RU-2-30 residential zoning boundary along the south interior property line: Required: 57 ft. / Proposed: 95 ft.

   Staff comment: PDP has been revised to meet the setback requirements of 62-2101.5 which shows 95 feet setback for Building #5.

2) Sec. 62-2101.5 (a) (2); Additional Building Height Setback for Building #4 A waiver reduction in the 2:1 setback requirement to RU-2-30 residential zoning boundary along the south interior property line: Required: 57 ft. / Proposed: ≥ 217 ft.

   Staff comment: PDP has been revised to meet the setback requirements of 62-2101.5 which shows ≥ 217 ft.

The applicant has not requested the following waiver to Chapter 62, Article VI (Zoning Regulations), regarding open space/recreation for the PUD, but it should be included in the request as follows:

3) Sec. 62-1446(c); *Minimum common recreation and open space.* A portion of the gross site acreage shall be delineated as tracts for common recreation and open space to be weighted based upon the mixture of residential uses in the PUD according to the following schedule: Multi-family at 25% and Regardless of the above, common recreation open space shall be provided at a minimum rate of 1.5 acres per 100 residential units, regardless of type. Required open space may be satisfied by either active recreation or passive recreation open space, as defined in Sec. 62-1102.

   Staff comment: Based on the above criteria, a minimum of 5.5 acres open space/recreation is required. The PDP states 4.45 acres, which is deficient.

The subject property contains two zoning classifications, BU-1 and BU-2, received under zoning actions: **Z-11144**, **Z-10173**, **Z-10775(16)**, **Z-10546**, **Z-8577** and **Z-7216**.

There are two existing BDPs associated with the subject property. The first BDP, recorded in ORB 4321, Pages 948 - 951 and approved under **Z-10546** on December 7, 2000, retained a Conditional Use Permit (CUP) for commercial entertainment and amusement enterprises – which is no longer allowed (prior use).

The other BDP, recorded in ORB 5607, Pages 5085 - 5089 and approved under **Z-11144** on November 3, 2005, binds the subject property to the following conditions:

- limits the BU-2 zoning to a portion of the property (tax parcel #547);
- limits the uses under the BU-2 zoning to only mini-warehouse (self-storage) use and other BU-1 permitted uses; and
- restricts conducting business from within the storage units.

Additional prior zoning actions include two variances approved under V-2970 and, V-2228 which reduced setbacks for the commercial entertainment and amusement enterprise CUP use.

The applicant has requested removal of the BDPs and the CUP associated with the subject property.

Land Use

The subject property is currently designated as Community Commercial (CC) FLU. The existing BU-1 and BU-2 zoning classifications can be considered consistent with the CC FLU designation.

The proposed PUD zoning classification can be considered consistent with the existing CC FLU.

Applicable Land Use Policies

FLUE Policy 2.7 – Activities Permitted in Community Commercial (CC) Future Land Use Designations

Community Commercial (CC) development activities are intended to serve several neighborhoods, sub-regional and regional areas and provide an array of retail, personal and professional uses. Development activities which may be considered within the Community Commercial (CC) Future Land Use designation, provided that listed criteria are met, include the following:

a) Professional offices (no drive through lanes permitted);
b) Personal Services (no drive through lanes permitted);
c) Convenience stores (no drive through lanes permitted);
d) Residential uses;
e) Institutional uses;
f) Recreational uses;
g) Public facilities; and
h) Transitional uses pursuant to Policy 2.11.

FLUE Policy 2.10 – Residential Development in Neighborhood Commercial and Community Commercial Land Use Designations

Residential development or the integration of residential development with commercial development shall be permitted in the Neighborhood Commercial and Community Commercial land use designations, provided that the scale and intensity of the residential/mixed use development is compatible with abutting residential development and areas designated for residential use on the Future Land Use Map. Residential development is permissible in these commercial land use designations at density of up to one category higher than the closest residentially designated area on the Future Land Use Map (FLUM) which is on the same side of the street. Increases in density beyond this allowance may be considered through a public hearing. In the CHHA, however, residential development is strictly limited to the density of the closest residentially designated area on the FLUM that is on the same side of the street. Such residential development, as described above, shall be allowed to utilize the following characteristics:

Criteria:

A. Residential uses within Neighborhood Commercial and Community Commercial designations shall be encouraged to utilize neo-traditional neighborhood development techniques, such as narrower road rights-of-way, mid-block pedestrian pass-throughs, alleys, smaller lot sizes, on-street parking, reduced lot line setbacks and public transit facilities.

The proposed PDP does not utilize neo-traditional neighborhood development techniques. The closest multi-family residential development is a condominium complex located immediately south of the subject property which retains RES 15 FLU designation and RU-2-30 (20) zoning that limits density to 20 units per acre. This request is for 25 units per acre. The Board shall determine whether the scale and intensity of the residential development is compatible with abutting residential development to the South and the surrounding area.

B. Residential density bonuses as set forth in Policy 11.2 may be considered in addition to the bonus stated in the above policy within Neighborhood Commercial and Community Commercial designations as an incentive for redevelopment and regentrification if the proposed development will address serious incompatibility with existing land uses, is adequately buffered from other uses, is located along major transportation corridors, and meets the concurrency requirements of this Comprehensive Plan.

Applicant is not requesting a density bonus.

The Board should evaluate the compatibility of this application within the context of Administrative Policies 3 – 5 of the Future Land Use Element.

Analysis of Administrative Policy #3 - Compatibility between this site and the existing or proposed land uses in the area.

Compatibility shall be evaluated by considering the following factors, at a minimum:

Criteria:

A. Whether the proposed use(s) would have hours of operation, lighting, odor, noise levels, traffic, or site activity that would significantly diminish the enjoyment of, safety or quality of life in existing neighborhoods within the area which could foreseeably be affected by the proposed use;

The applicant proposes to rezone 15.11 acres to the PUD zoning classification for the purpose of developing an apartment complex with 370 residential units. Development would need to meet performance standards set forth in code sections 62-2251 through 62-2272 and will be reviewed at the site plan review stage. The proposed density of 25 units per acre has the potential to increase the noise levels and traffic to and from the subject property.

B. Whether the proposed use(s) would cause a material reduction (five per cent or more) in the value of existing abutting lands or approved development.

Only a certified MAI appraisal can determine if material reduction has or will occur due to the proposed request.

C. Whether the proposed use(s) is/are consistent with an emerging or existing pattern of surrounding development as determined through an analysis of:

1. historical land use patterns;

The surrounding area is generally commercial with residential to the south. There are five (5) FLU designations within 500 feet of the subject site: NC, CC, RES 6, RES 15, and PUB. The predominant FLU designation along this section of Fortenberry Road, an Urban Major Collector roadway, is CC. RES 15 FLU designation is located immediately south of the subject property. Veterans Memorial Park is to the east.

2. actual development over the immediately preceding three years; and

There has not been any actual development within this area in the preceding three (3) years.

3. development approved within the past three years but not yet constructed.

There has not been any development approved but not yet constructed within this area in the preceding three (3) years.

While there has not been any actual development within this area in the preceding three (3) years, two zoning actions has been approved within one-half mile:

22PUD0001, approved by the Board on July 18, 2022, was a request to rezone to PUD with waivers on 15.05 acres located approximately 1,860 feet north of the subject property on E. Merritt Island Causeway (SR 520) for a hospital and medical village.

21Z00004, approved by the Board on July 7, 2022, was a request to rezone from RU-1-9 (Single-Family Residential) to BU-2 (Retail, Warehousing and Wholesale Commercial) with a Binding Development Plan on 0.53 acres located approximately 1,665 feet southwest of the subject property on Cone Road.

D. Whether the proposed use(s) would result in a material violation of relevant policies in any elements of the Comprehensive Plan.

If the Board approves the waiver request, it would set a precedent for other such requests.

Analysis of Administrative Policy #4 - Character of a neighborhood or area.

The developed character of the surrounding area is commercial, multi-family residential and single-family residential. The closest multi-family residential development is a condominium complex located immediately south of the subject property which retains RU-2-30 (20) zoning that limits density to 20 units per acre. Except for the GU-zoned lot to the south, the multi-family use proposed in the PUD appears to buffer the adjacent commercial from the multi-family use to the south.

Surrounding Area

	Existing Use	Zoning	Future Land Use	Density
North	Retail Commercial	BU-1	CC	N/A
South	Stormwater pond; Multi-Family Residential; Single-Family Residential	GML; RU-2-30 (20); GU	PUB; RES 15; NC	20 units per acre
East	Stormwater pond	BU-1	PUB	N/A
West	Commercial; Single-Family Residential	BU-1-A; RU-1-9	NC; RES 6	6 units per acre

To the north, across Fortenberry Road, is a 55.06-acre parcel developed as a commercial shopping mall with BU-1 zoning.

To the south is an 8.5-acre parcel with GML zoning utilized as a stormwater retention; three parcels (2.8 acres, 2.16 acres, and 1.8 acres) developed as multi-family condominiums with RU-2-30 (20) zoning; and a 0.98-acre parcel developed as a single-family residence with GU zoning.

To the east a 6.85-acre parcel with BU-1 zoning utilized as a stormwater retention.

To the west, abutting a portion of the subject site, are two parcels (1.32 acres and 4.5 acres) developed as a commercial credit union with BU-1 zoning. To the west, across South Plumosa Street, is a 1.21-acre parcel developed as a commercial plaza with BU-1-A zoning; and two parcels (0.24 acres and 0.3 acres) developed as single-family residences with RU-1-9 zoning.

The current The BU-1 classification encompasses land devoted to general retail shopping, offices and personal services to serve the needs of the community and allows for retail commercial land uses on minimum 7,500 square foot lots. The BU-1 classification does not permit warehousing or wholesaling. The BU-1 classification allows for the outdoor storage of retail items that may include but are not limited to motor vehicles, utility sheds, nursery items such as plants and trees, and boats.

The current BU-2 classification permits retail, wholesale and warehousing commercial land uses on minimum 7,500 square foot lots. Possible incompatibilities are due to the intensive nature of commercial activities permitted by the BU-2 classification and possible noise, light, traffic and other nuisance factors potentially associated with BU-2 activities. Resort dwelling use is allowed as a permitted use in the BU-2 classification.

RU-2-30 classification permits high density multi-family residential development of up to 30 unit per acre. Multiple-family residential structures may be constructed on a minimum lot size of 10,000 square feet, with at least 100' of lot width and 100' of lot depth. Single-family residences are also permitted on minimum lot sizes of 7,500 square feet with at least 75' of lot width and 75' of lot depth.

The RU-1-9 classification permits single family residential development on lots of 6,600 square feet (minimum). The minimum house size is 900 square feet.

The GU classification is a holding category, allowing single-family residences on five acre lots with a minimum width and depth of 300 feet. The minimum house size in GU is 750 square feet.

GML government managed lands zoning classification recognizes the presence of lands and facilities which are managed by federal, state and local government, special districts, nongovernmental organizations (NGOs) providing economic, environmental and/or quality of life benefits to the county, electric, natural gas, water and wastewater utilities that are either publicly owned or regulated by the Public Service Commission, and related entities.

Planned Unit Development (PUD) encourages and permits variation in development by allowing deviation in lot size, bulk or type of dwellings, density, lot coverage and open space from that required in any one residential zoning classification. The purpose of a PUD is to encourage the development of planned residential neighborhoods and communities that provide a full range of residence types, as well as industrial, commercial and institutional land uses.

Preliminary Development Plan

In addition of Administrative Policies #3 and #4, the Preliminary Development Plan should be evaluated in the context of **Section 62-1448 (b) (5)** of the Zoning code:

Review criteria. The decision of the planning and zoning board on the preliminary development plan application shall include the findings of fact that serve as a basis for its recommendation. In making its recommendation, the planning and zoning board shall consider the following facts:

a. Degree of departure of the proposed planned unit development from surrounding residential areas in terms of character and density.

Applicant response: The character of the surrounding area is substantially commercial with uses such as, the Merritt Square Mall to the north, Veterans Memorial Park to the East, Harbor Woods Condominiums to the south and a variety of retail uses to the west defining this neighborhood. The luxury apartment community focused character of the proposed PUD will compliment and support the surrounding area.

Staff comment: The developed character of the surrounding area is commercial, multi-family residential and single-family residential. The closest multi-family residential development is a condominium complex located immediately south of the subject property and retains RU-2-30 (20) zoning that limits density to 20 units per acre. This request is 25 units per acre.

b. Compatibility within the planned unit development and relationship with surrounding neighborhoods.

Applicant response: The proposed development is compatible within the PUD and with the surrounding neighborhoods which are substantially commercial in nature.

Staff comment: Except for the GU-zoned lot, the multi-family use proposed in the PUD appears to buffer the commercial from pre-existing multi-family use with comparable density to the south.

c. Prevention of erosion and degrading of surrounding area.

Applicant response: Erosion and degradation of the surrounding area will be prevented by stabilization of unpaved areas by landscaping. The property is part of the Fortenberry Regional Stormwater Management System and is tributary to Alum Pond to the South of the Property. This investment will very likely serve as a catalyst for future investments along this corridor.

Staff comment: If stormwater storage is not allowed to occur offsite, a large portion of the site needs to be altered to provide wet pond storage and treatment, and the PDP will need to be revised.

d. Provision for future public education and recreation facilities, transportation, water supply, sewage disposal, surface drainage, flood control and soil conservation as shown in the preliminary development plan.

Applicant response: No public education facilities (schools) public recreation facilities are proposed with this development. Water supply will be provided with on-site water distribution system connected to the City of Cocoa water mains. Sewage disposal will be provided by on-site gravity sewer mains connected to the Brevard County Utilities sewer mains. The property is part of the Fortenberry Regional Stormwater Management System and is tributary to Alum Pond to the South of the Property. Surface drainage and flood control will be provided by an onsite stormwater management system. Soil conservation of unpaved areas will be provided by landscaping. These provisions are shown on the PDP.

Staff comment: The school concurrency indicates there is enough capacity for the total of projected and potential students from the proposed development. While the maximum development potential of the proposal is not anticipated to create a deficiency in LOS of Fortenberry Road, any addition of access points on other County maintained right-of-ways would require further concurrency evaluation and review. A Traffic Impact Analysis (TIA) has been submitted for review on January 3rd, 2023 to determine if any operational roadway improvements are needed. When staff has completed its review, those comments will be published. The applicant has not provided verification of the ability to connect to existing stormwater system.

e. The nature, intent and compatibility of common open space, including the proposed method for the maintenance and conservation of the common open space.

Applicant response: This information is shown on the PDP. The natural wetland preserves will be maintained and are at the center of the aesthetics of the project. Maintenance shall be retained by Owner. Control and maintenance of common open space and facilities by the Developer.

Staff comment: The minimum common recreation open space required for the proposed project is 5.55 acres per Sec. 62-1446(c). The PDP states 4.45 acres provided.

f. The feasibility and compatibility of the specified stages contained in the preliminary development plan to exist as an independent development.

Applicant response: The property owner intends to construct the project in one stage (phase), with the buildings to be sequenced in construction.

Staff comment: Open space requirements are deficient without a waiver.

g. The availability and adequacy of water and sewer service to support the proposed planned unit development.

Applicant response: There is available water and sewer service existing on-site. This infrastructure has the capacity to support the proposed development, with modifications that may be required to the locations and alignment of water and sewer mains based on the proposed development.

Staff comment: A connection to water and sewer facilities is proposed.

h. The availability and adequacy of primary streets and thoroughfares to support traffic to be generated within the proposed planned unit development.

Applicant response: The proposed PUD is located adjacent to Fortenberry Road. Included in the application is a Traffic Impact Analysis presenting existing traffic counts and existing roadway segment conditions along with a trip generation summary of the proposed land uses, as provided by the ITE Trip Generation Manual. The trip generation summary provides peak hour and daily trip generation estimates. As summarized in section 6.0 of the Traffic Impact Analysis: A roadway segment capacity analysis was performed for the study area roadway segments for existing, background, and buildout conditions. The Daily and PM peak hour two-way analysis identified no roadway segment capacity deficiencies within the study area. An operational analysis for the existing and future conditions was performed at the study area intersections. All study intersections were found to operate at an acceptable LOS and v/c ratio in the AM and PM peak hour with proposed minor signal timing improvements with the exception of some of the minor approaches at the intersections on SR 520, due to the prioritization of green time on SR 520. No new deficiencies were identified as a result of the proposed development. The need for exclusive ingress right-turn lanes and left-turn lanes at the full access project driveways on Fortenberry Road was evaluated on the National Cooperative Highway Research Program (NCHRP) Report 457 thresholds. No ingress turn lanes are warranted at the project driveways on Fortenberry Road.

Staff comment: A Traffic Impact Analysis (TIA) has been submitted for review on January 3rd,

2023 to determine if any operational roadway improvements are needed. When staff has completed its review, those comments will be published. Transportation impacts are typically addressed during the site plan review, unless the Board determines the study is necessary to evaluate the PUD rezoning.

i. The benefits within the proposed development and to the general public to justify the requested departure from the standard land use requirements inherent in a planned unit development classification.

Applicant response: The proposed development will not only provide much needed housing for the community but also provide a significant amount of jobs throughout construction and ongoing property management and contribute significant impact fee revenue and tax revenue to the community.

Staff comment: The applicant is proposing to develop the site at a density of 25 dwelling units per acre (a total of 370 multi-family apartment units). The applicant has not proposed school busing or S.C.A.T. service to alleviate potential traffic burden along Fortenberry Road.

j. The conformity and compatibility of the planned unit development with any adopted development plan of the county.

Applicant response: The PUD is compatible with Brevard County's Comprehensive Plan and the vision set forth for the Merritt Island Redevelopment Agency.

Staff comment: The applicant is seeking waivers for setbacks which are not needed. A waiver request for open space/recreation should be considered as part of this request and has not been requested by the applicant. The Board will need to determine if the request is compatible.

k. The conformity and compatibility of the proposed common open space, primary residential and secondary nonresidential uses with the proposed planned unit development.

Applicant response: This information is shown on the PDP and described in the narrative above. We are requesting a waiver to the common open space requirement. The project site area is restricted in order to maintain and preserve the natural wetlands environmental areas, as well as the location of the project adjacent to the newly renovated Veterans Memorial Park.

Staff comment: The proposed Preliminary Development Plan (PDP) states that the applicant has provided 4.45 acres of common open space of which 1.19 acres is active open space. This does not meet code as 5.5 acres are required.

Preliminary Development Plan Agency Review Comments:

Brevard County Public Works Engineering:

1. This drainage plan is missing an onsite stormwater management system. The drainage plan shows the south basin of the site routing drainage to the "Exist. Outfall to Alum Pond." Per the Stormwater Calculations report for the Fortenberry Regional Stormwater Management System

(Revised January 24, 2011), "the Alum Pond provides minimal treatment prior to discharge to Newfound Harbor which is an "Outstanding Florida Water" or Class II water body." The alum pond cannot be used to meet the stormwater treatment requirements for this site. If the intent is to use the Fortenberry Regional system to meet the onsite stormwater requirements, the stormwater drainage will need to be routed to the pipe conveyance system in Fortenberry Road to the north, and an application to connect to the regional system will need to be completed with Natural Resources. If an onsite stormwater system will be provided, please ensure the onsite system meets the requirements of the Code of Ordinances of Brevard County, Section 62-3751, Exhibit A – Stormwater Management Criteria.

2. a. Harbor Woods Boulevard not a County Maintained right-of-way. Please provide title opinion and documentation with rights to access through this property. If access is not granted through this property, please remove the proposed driveway connection and any notes regarding access through Harbor Woods Boulevard.

2. b. One access point to a County maintained right-of-way – Fortenberry Road - is shown on the plan. The proposed development includes 370 dwelling units which requires three(3) entrances per the Code of Ordinances of Brevard County, Section 62-2957. Please provide two(2) additional entrances connected to the county roadway system. Please address previous comment concerning access through "Harbor Woods Boulevard."

2. c. O.R. Book 3056, Page 2495 notes the drainage and utilities easement is reserved for the grantors and Brevard County. This document will need to be reviewed by the County and may affect the proposed improvements in this area.

Brevard County Natural Resources Management Department comments:

1. Mapped NWI/SJRWMD wetlands and/or hydric soils are present, indicating the potential presence of wetlands. The presence (or not) of wetlands shall be determined by a professional environmental consultant. This information is subject to confirmation by SJRWMD. Once lines are approved by SJRWMD, please have all the wetlands delineated by bearings and distances tied to the boundary lines.

2. Per Section 62-3694(c)(1), residential land uses within wetlands shall be limited to not more than one (1) dwelling unit per five (5) acres unless strict application of this policy renders a legally established parcel as of September 9, 1988, which is less than five (5) acres, as unbuildable. The preceding limitation of one dwelling unit per five (5) acres within wetlands may be applied as a maximum percentage limiting wetland impacts to not more than 1.8% of the total non-commercial and non-industrial acreage on a cumulative basis as set forth in Section 65 3694(c)(6), for subdivisions and multi-family parcels greater than 5 acres in area, New Town Overlays, PUDs and if applicable, mixed-use land development activities as specified in Section 65-3694(c)(5). Any permitted wetland impacts must meet the requirements of Sections 62-3694(e) and 62-3696.

Brevard County Utilities Department comment:

System upgrades may be required to the existing system in order for it to handle the increase in proposed flows. Per Brevard County Utility Services Department (BCUSD) 1.1.14, this would be the responsibility of the developer and would need to be determined during the design process.

Preliminary Concurrency

The closest concurrency management segment to the subject property is Fortenberry Road, from S. Plumosa Street to Sykes Creek Parkway, which has a Maximum Acceptable Volume (MAV) of 15,600 trips per day, a Level of Service (LOS) of E, and currently operates at 25.58% of capacity daily. The maximum development potential from the proposed rezoning increases the percentage of MAV utilization by 22.33%. The corridor is anticipated to operate at 47.91% of capacity daily. The maximum development potential of the proposal is not anticipated to create a deficiency in LOS. Specific concurrency issues will be address at the time of site plan review. This is only a preliminary review and is subject to change.

The preliminary school concurrency review indicates there is enough capacity for the total of projected and potential students from the proposed development. There is sufficient capacity at Tropical Elementary School Jefferson Middle School and Merritt Island Sr High School for the total of projected and potential students from this development.

The parcel has access to Cocoa City Water Distribution per information provided by the City of Cocoa. The closest Brevard County sewer lines are located on Fortenberry Road and on S. Plumosa Street.

Environmental Constraints

- Wetlands
- Floodplain
- Aquifer Recharge
- Indian River Lagoon Nitrogen Reduction Septic Overlay
- Protected and Specimen Trees
- Protected Species

The subject property contains wetlands as depicted on applicant's submittal. The wetland delineation requires state agency verification. Per Section 62-3694(c)(1), residential land uses within wetlands shall be limited to not more than one (1) dwelling unit per five (5) acres unless strict application of this policy renders a legally established parcel as of September 9, 1988, which is less than five (5) acres, as unbuildable. For PUD's, the preceding limitation of one dwelling unit per five (5) acres within wetlands may be applied as a maximum percentage limiting wetland impacts to not more than 1.8% of the total non-commercial and non-industrial acreage on a cumulative basis as set forth in Section 65-3694(c)(6). Any permitted wetland impacts must meet the requirements of Section 62-3694(e) including avoidance of impacts, and will require mitigation in accordance with Section 62-3696. The applicant is encouraged to contact NRM at 321-633-2016 prior to any plan design or permit submittal.

Please refer to all comments provided by the Natural Resource Management Department at the end of this report.

For Board Consideration

The Board may wish to consider if the request is consistent and compatible with the surrounding area and whether the waiver requests are appropriate.

The Board may wish to consider the following conditions to mitigate potential impacts of the development:

1) Prior to site plan approval, the applicant shall demonstrate the site has the ability to use the alum pond/regional stormwater system. Should the site not be able to use said pond, site shall be redesigned to accommodate on-site retention, as required by Code of Ordinances of Brevard County, Section 62-3751, Exhibit A – Stormwater Management Criteria as well as the St. Johns River Water Management District;
2) Prior to site plan approval, the applicant shall depict three entrances connected to the county roadway system on the PDP, as required per Sec. 62-2957(c)(1);
3) If the waiver is not approved, the applicant shall depict a minimum of 5.55 acres of Common Recreation Open Space on the approved site plan, as required per Sec. 62-1446(c) and meeting the definitions in Sec. 62-1102.
4) Prior to site plan approval, applicant to provide a traffic study demonstrating any necessary roadway improvements based on anticipated traffic volumes;
5) All design elements shown on the PDP require conformance with Brevard County code and requires permits;
6) Provide an updated PDP depicting the correct waivers granted; and
7) Should any of the aforementioned redesign be deemed a substantial change by the zoning official, a PDP Amendment would require Board Approval.

NATURAL RESOURCES MANAGEMENT (NRM) DEPARTMENT
Zoning Review & Summary
Item #22Z00062

Applicant: Ross Abramson
Zoning Request: BU-1; BU-2 to PUD
Note: Applicant wants to redevelop with multifamily use and rental apartments
P&Z Hearing Date: 01/09/2023; **BCC Hearing Date**: 02/02/2023
Tax ID No: 2428163, 2428002, 2428157, 2428161

- This is a preliminary review based on best available data maps reviewed by the Natural Resources Management Department (NRM) and does not include a site inspection to verify the accuracy of the mapped information.
- In that the rezoning process is not the appropriate venue for site plan review, specific site designs submitted with the rezoning request will be deemed conceptual. Board comments relative to specific site design do not provide vested rights or waivers from Federal, State or County regulations.
- **This review does not guarantee whether or not the proposed use, specific site design, or development of the property can be permitted under current Federal, State, or County Regulations.**

Summary of Mapped Resources and Noteworthy Land Use Issues:

- Wetlands
- Floodplain
- Aquifer Recharge
- Indian River Lagoon Nitrogen Reduction Septic Overlay
- Protected and Specimen Trees
- Protected Species

The subject property contains wetlands as depicted on applicant's submittal. The wetland delineation requires state agency verification. Per Section 62-3694(c)(1), residential land uses within wetlands shall be limited to not more than one (1) dwelling unit per five (5) acres unless strict application of this policy renders a legally established parcel as of September 9, 1988, which is less than five (5) acres, as unbuildable. For PUD's, the preceding limitation of one dwelling unit per five (5) acres within wetlands may be applied as a maximum percentage limiting wetland impacts to not more than 1.8% of the total non-commercial and non-industrial acreage on a cumulative basis as set forth in Section 65-3694(c)(6). Any permitted wetland impacts must meet the requirements of Section 62-3694(e) including avoidance of impacts, and will require mitigation in accordance with Section 62-3696. The applicant is encouraged to contact NRM at 321-633-2016 prior to any plan design or permit submittal.

A portion of the property is located within an area mapped as FEMA Special Flood Hazard Area (SFHA) AE, as identified by the Federal Emergency Management Agency, and as shown on the FEMA Flood Map.

The entire parcel is mapped within the Indian River Lagoon Nitrogen Reduction Overlay. If adequate sewer for the development is not available, then the use of an alternative septic system, designed to provide at least 65% total nitrogen reduction through multi-stage treatment processes, shall be required.

NRM reserves the right to assess consistency with environmental ordinances at all applicable future stages of development.

Land Use Comments:

Wetlands
The subject parcel contains mapped NWI and SJRWMD wetlands and hydric soils (Canaveral Anclote complex and Anclote sand) as shown on the NWI Wetlands, SJRWMD Florida Land Use & Cover Codes and USDA Soil Conservation Service Soils Survey maps, respectively. The applicant provided a wetlands delineation depicting two Freshwater Forested Wetlands with a total of 3.29 acres of the property. The wetland delineation requires state agency verification.

Per Section 62-3694(c)(1), residential land uses within wetlands shall be limited to not more than one (1) dwelling unit per five (5) acres unless strict application of this policy renders a legally established parcel as of September 9, 1988, which is less than five (5) acres, as unbuildable. The preceding limitation of one dwelling unit per five (5) acres within wetlands may be applied as a maximum percentage limiting wetland impacts to not more than 1.8% of the total non-commercial and non-industrial acreage on a cumulative basis as set forth in Section 65 3694(c)(6), for PUDs and if applicable, mixed-use land development activities as specified in Section 65-3694(c)(5). Any permitted wetland impacts must meet the requirements of Sections 62-3694(e) and 62-3696. The applicant is encouraged to contact NRM at 321-633-2016 prior to any plan or permit submittal.

Floodplain
A large portion of the property is within an area mapped as SFHA AE, as identified by the Federal Emergency Management Agency, and as shown on the FEMA Flood Map. The property is subject to the development criteria in Conservation Element Objective 4, its subsequent policies, and the Floodplain Ordinance. Additional impervious area, often associated with increased density, increases stormwater runoff that can adversely impact nearby properties unless addressed on-site. Chapter 62, Article X, Division 6 states, "No site alteration shall adversely affect the existing surface water flow pattern." Chapter 62, Article X, Division 5, Section 62-3723 (2) states, "Development within floodplain areas shall not have adverse impacts upon adjoining properties."

Aquifer Recharge Soils
The subject parcel contains mapped aquifer recharge soils (Canaveral Anclote complex) as shown on the USDA Soil Conservation Service Soils Survey map. The applicant is hereby notified of the development and impervious restrictions within Conservation Element Policy 10.2 and the Aquifer Protection Ordinance.

Indian River Lagoon Nitrogen Reduction Overlay
The property is mapped within the Indian River Lagoon Nitrogen Reduction Overlay per Chapter 46, Article II, Division IV - Nitrogen Reduction Overlay. Should this area be utilized for septic, and if adequate sewer for the development is not available, then the use of an alternative septic system,

designed to provide at least 65% total nitrogen reduction through multi-stage treatment processes, shall be required. NRM requires a Septic Maintenance Notice be filed with the Brevard Clerk of Courts.

Protected and Specimen Trees
Protected (>= 10 inches in diameter) and Specimen (>= 24 inches in diameter) trees may exist on the parcel. A tree survey will be required at time of a site plan submittal. The applicant is encouraged to perform a tree survey prior to any site plan design in order to incorporate valuable vegetative communities or robust trees into the design. Per Section 62-4341(18), Specimen and Protected Trees shall be preserved or relocated on site to the Greatest Extent Feasible. Greatest Extent Feasible shall include, but not be limited to, relocation of roads, buildings, ponds, increasing building height to reduce building footprint or reducing Vehicular Use Areas. The applicant is advised to refer to Article XIII, Division 2, entitled Land Clearing, Landscaping, and Tree Protection, for specific requirements for preservation and canopy coverage requirements. Applicant should contact NRM at 321-633-2016 prior to performing any land clearing activities.

Protected Species
Information available to NRM indicates that federally and/or state protected species may be present on the property. Prior to any plan, permit submittal, or development activity, including land clearing, the applicant should obtain any necessary permits or clearance letters from the Florida Fish and Wildlife Conservation Commission and/or U.S. Fish and Wildlife Service, as applicable.

Brevard COUNTY

BOARD OF COUNTY COMMISSIONERS

Planning and Development Department
2725 Judge Fran Jamieson Way
Building A
Viera, Florida 32940

Inter-Office Memo

TO: Board of County Commissioners

FROM: Jeffrey Ball, AICP, Planning and Zoning Manager, Planning and Development

THRU: Tad Calkins, Director, Planning and Development

Cc: Frank Abbate, County Manager
John Denninghoff, P.E., Assistant County Manager

DATE: January 19 2023

SUBJECT: Agenda Item: H8, NDA Merritt Project Zenith, LLC and SES Merritt Project Zenith, LLC BU-1 (General Retail Commercial) and BU-2 (Retail, Warehousing and Wholesale Commercial) with BDPs to PUD (Planned Unit Development) with removal of BDPs and a CUP for Commercial Entertainment and Amusement Enterprises Submittal (22Z00062) for the February 2, 2023, Meeting Agenda

---

During the Planning and Zoning meeting on January 9, 2023 the applicant provided staff a revised Preliminary Development Plan (PDP) requesting two additional waivers to include for consideration:

Sec. 62-1446(c); Minimum common recreation and open space. A portion of the gross site acreage shall be delineated as tracts for common recreation and open space to be weighted based upon the mixture of residential uses in the PUD according to the following schedule: Multi-family at 25% and Regardless of the above, common recreation open space shall be provided at a minimum rate of 1.5 acres per 100 residential units, regardless of type. Required open space may be satisfied by either active recreation or passive recreation open space, as defined in Sec. 62-1102. The applicant is requesting to reduce the open space to 4.4 acres from 5.5 acres.

Sec. 62-2957c(1); Access Management; Code requires 350 dwelling units and up requires three access points. The applicant is requesting to reduce the number of access points from three to two. This waiver is only for the number of access points. Specific design elements will be addressed as part of the site plan review process.

Public Works Engineering has reviewed the Transportation Impact Analysis (TIA). Comments were forwarded to the applicant to be addressed at site plan. A copy of the comments are included in the Board packet.

On January 9, 2023, the Planning & Zoning Board heard the request and recommended approval of the zoning change to PUD, removing the two existing BDP's, and with the proposed 7 conditions, and an added 8th condition of one access to be provided on Harbor Woods Drive and one access to be provided on Fortenberry Road.

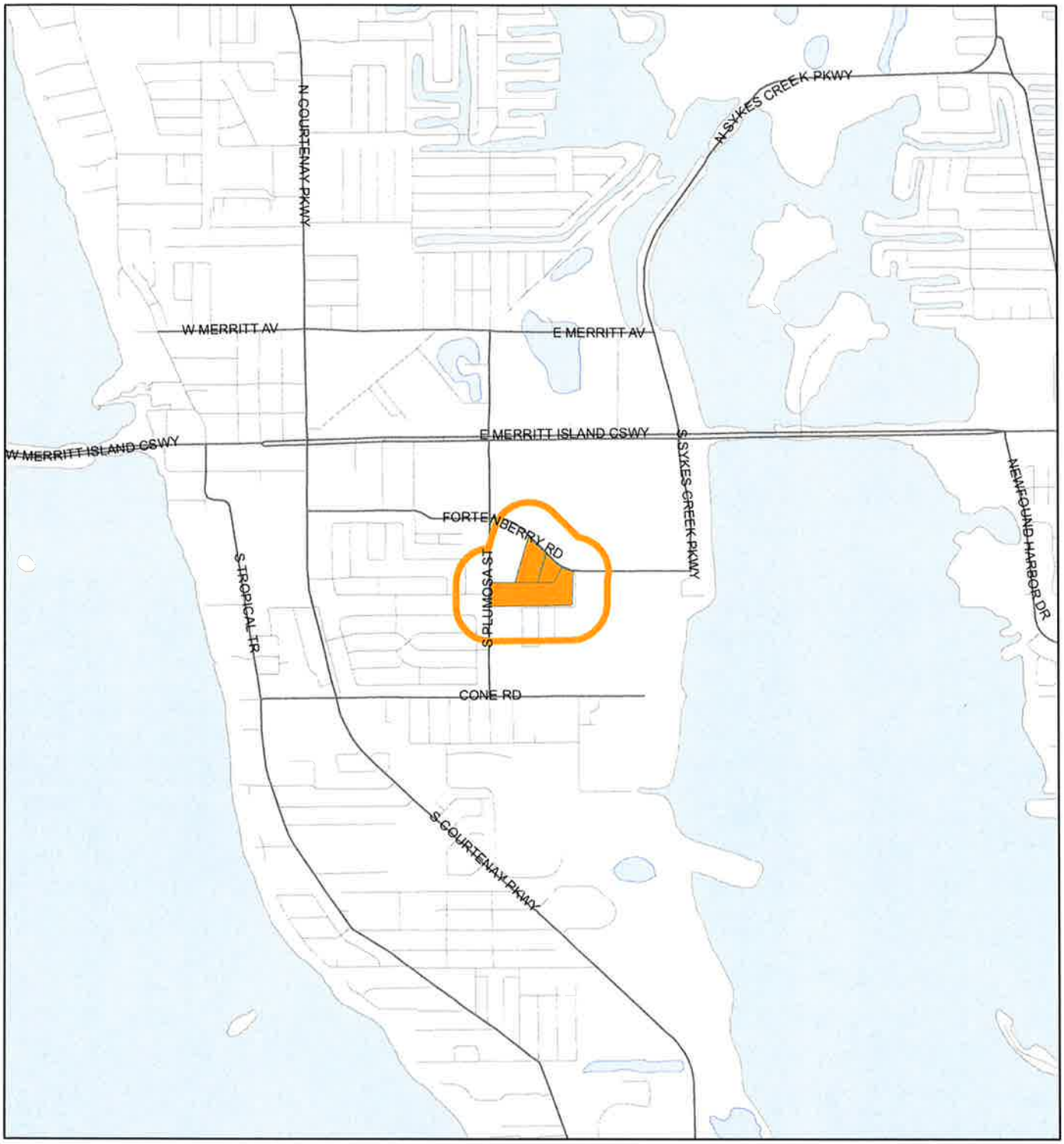
For Board Consideration

The Board may wish to consider these two additional waivers and whether the PUD request is consistent with the Comprehensive Plan and compatible with the surrounding area.

LOCATION MAP

NDA MERRITT PROJECT ZENITH, LLC; SES MERRITT PROJECT ZENITH, LLC

22Z00062



N

W E

S

1:24,000 or 1 inch = 2,000 feet

Buffer Distance: 500 feet

This map was compiled from recorded documents and does not reflect an actual survey. The Brevard County Board of County Commissioners does not assume responsibility for errors or omissions hereon.

Produced by BoCC - GIS Date: 12/13/2022

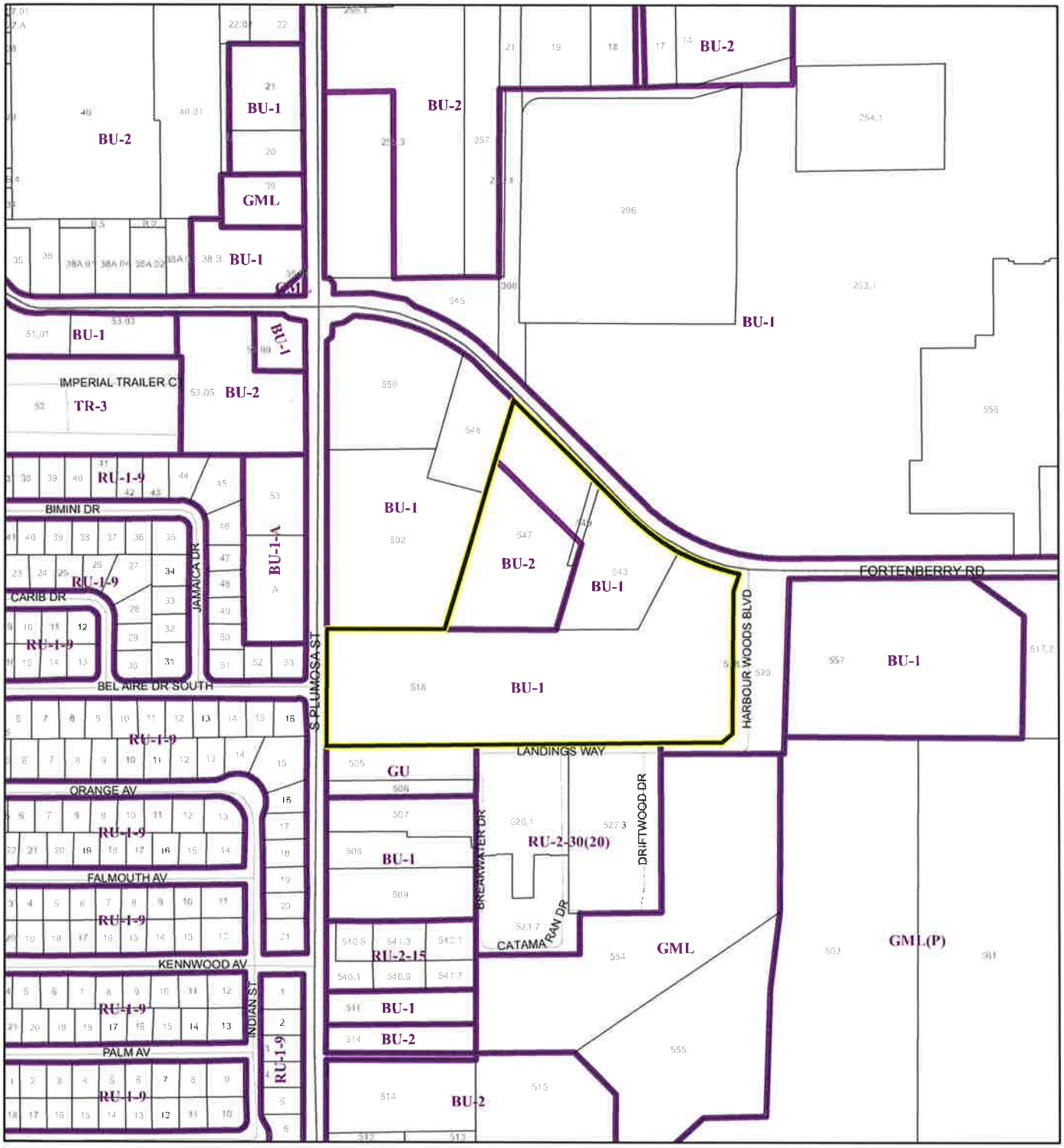
Buffer

Subject Property

ZONING MAP

NDA MERRITT PROJECT ZENITH, LLC; SES MERRITT PROJECT ZENITH, LLC

22Z00062



N

W E

S

1:4,800 or 1 inch = 400 feet

Subject Property

Parcels

Zoning

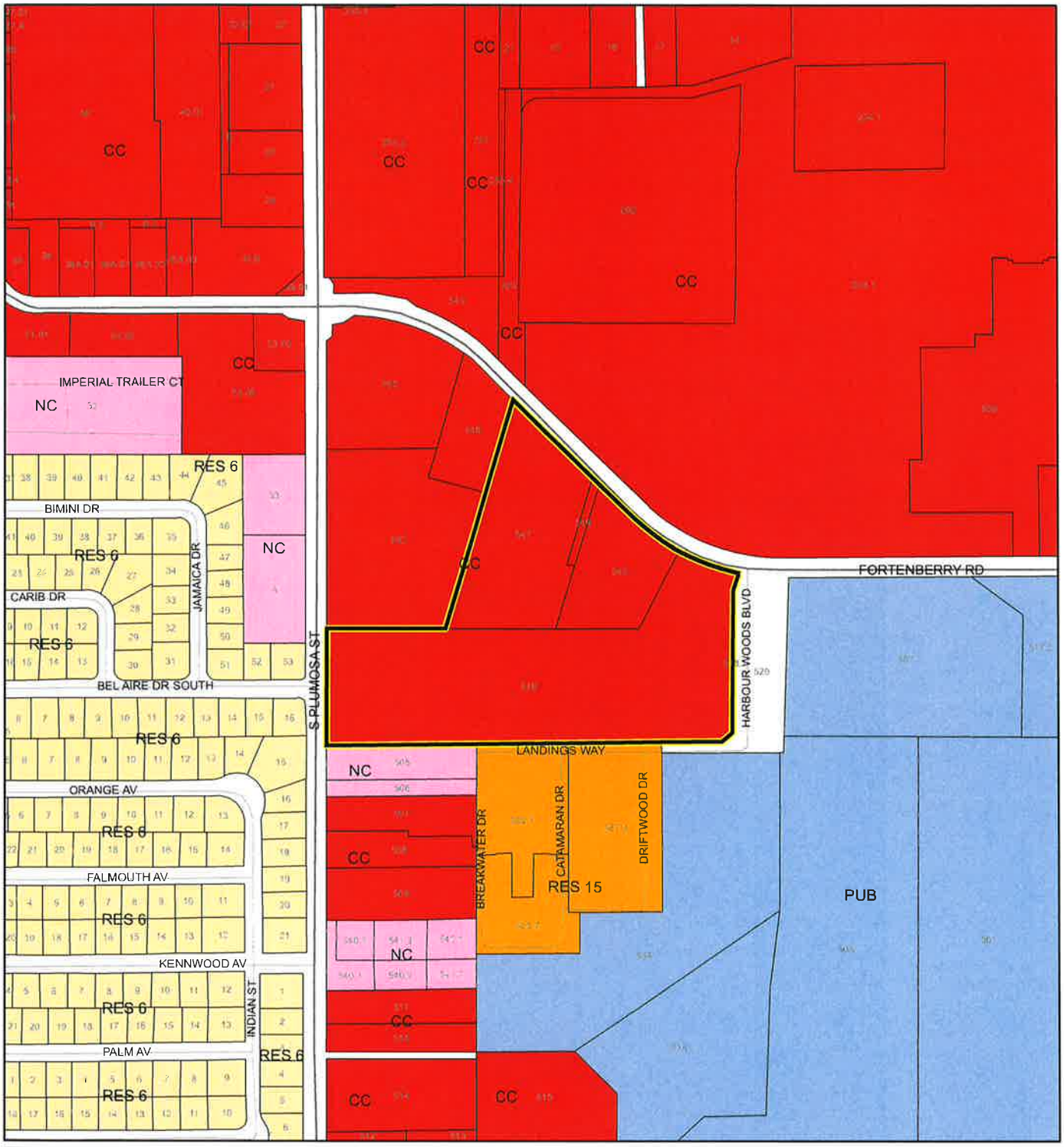
This map was compiled from recorded documents and does not reflect an actual survey. The Brevard County Board of County Commissioners does not assume responsibility for errors or omissions hereon.

Produced by BoCC - GIS Date: 12/13/2022

FUTURE LAND USE MAP

NDA MERRITT PROJECT ZENITH, LLC; SES MERRITT PROJECT ZENITH, LLC

22Z00062



N

W E

S

1:4,800 or 1 inch = 400 feet

Subject Property

Parcels

This map was compiled from recorded documents and does not reflect an actual survey. The Brevard County Board of County Commissioners does not assume responsibility for errors or omissions hereon.

Produced by BoCC - GIS Date: 12/13/2022

AERIAL MAP

NDA MERRITT PROJECT ZENITH, LLC; SES MERRITT PROJECT ZENITH, LLC

22Z00062



N

W E

S

1:4,800 or 1 inch = 400 feet

PHOTO YEAR: 2022

This map was compiled from recorded documents and does not reflect an actual survey. The Brevard County Board of County Commissioners does not assume responsibility for errors or omissions hereon.

Produced by BoCC - GIS Date: 12/13/2022

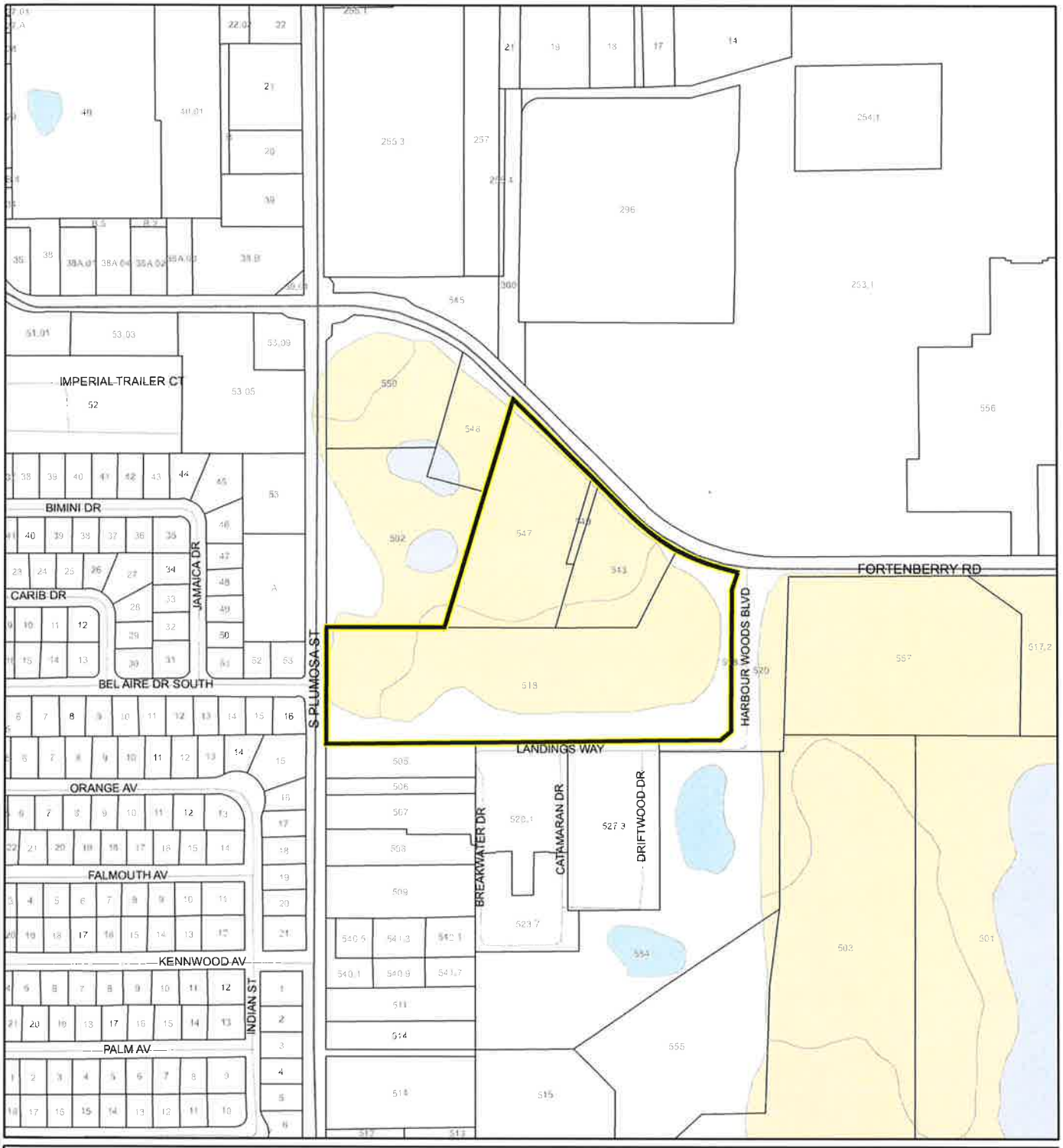
Subject Property

Parcels

NWI WETLANDS MAP

NDA MERRITT PROJECT ZENITH, LLC; SES MERRITT PROJECT ZENITH, LLC

22Z00062



N

W E

S

1:4,800 or 1 inch = 400 feet

This map was compiled from recorded documents and does not reflect an actual survey. The Brevard County Board of County Commissioners does not assume responsibility for errors or omissions hereon.

Produced by BoCC - GIS Date: 12/13/2022

National Wetlands Inventory (NWI)

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine
- Subject Property
- Parcels

SJRWMD FLUCCS WETLANDS - 6000 Series MAP

NDA MERRITT PROJECT ZENITH, LLC; SES MERRITT PROJECT ZENITH, LLC

22Z00062



N

W E

S

1:4,800 or 1 inch = 400 feet

This map was compiled from recorded documents and does not reflect an actual survey. The Brevard County Board of County Commissioners does not assume responsibility for errors or omissions hereon.

Produced by BoCC - GIS Date: 12/13/2022

SJRWMD FLUCCS WETLANDS

- Wetland Hardwood Forests - Series 6100
- Wetland Coniferous Forest - Series 6200
- Wetland Forested Mixed - Series 6300
- Vegetated Non-Forested Wetlands - Series 6400
- Non-Vegetated Wetland - Series 6500

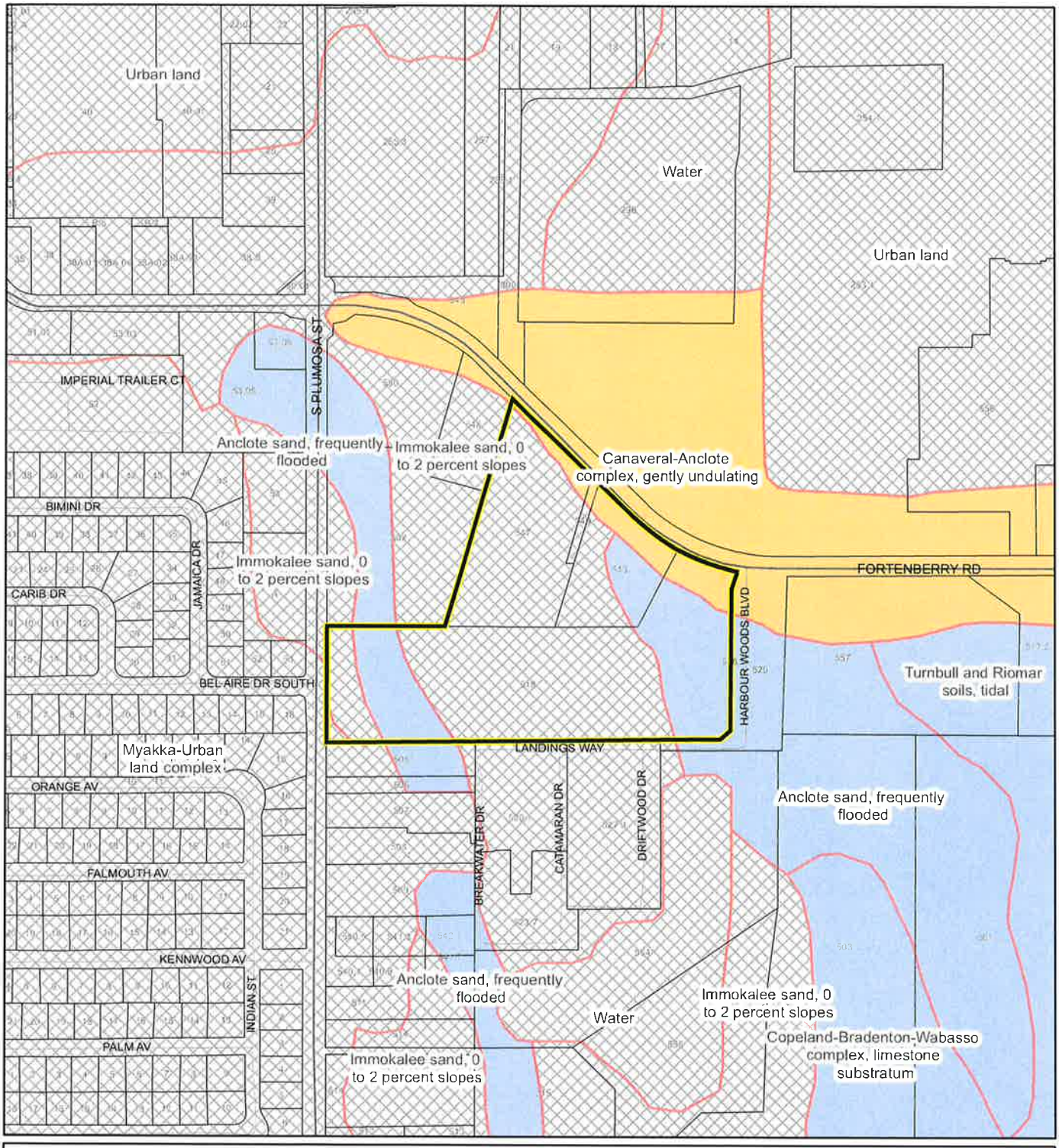
Subject Property

Parcels

USDA SCSSS SOILS MAP

NDA MERRITT PROJECT ZENITH, LLC; SES MERRITT PROJECT ZENITH, LLC

22Z00062



N

W E

S

1:4,800 or 1 inch = 400 feet

This map was compiled from recorded documents and does not reflect an actual survey. The Brevard County Board of County Commissioners does not assume responsibility for errors or omissions hereon.

Produced by BoCC - GIS Date: 12/13/2022

USDA SCSSS Soils

- Aquifer and Hydric
- Aquifer
- Hydric
- None

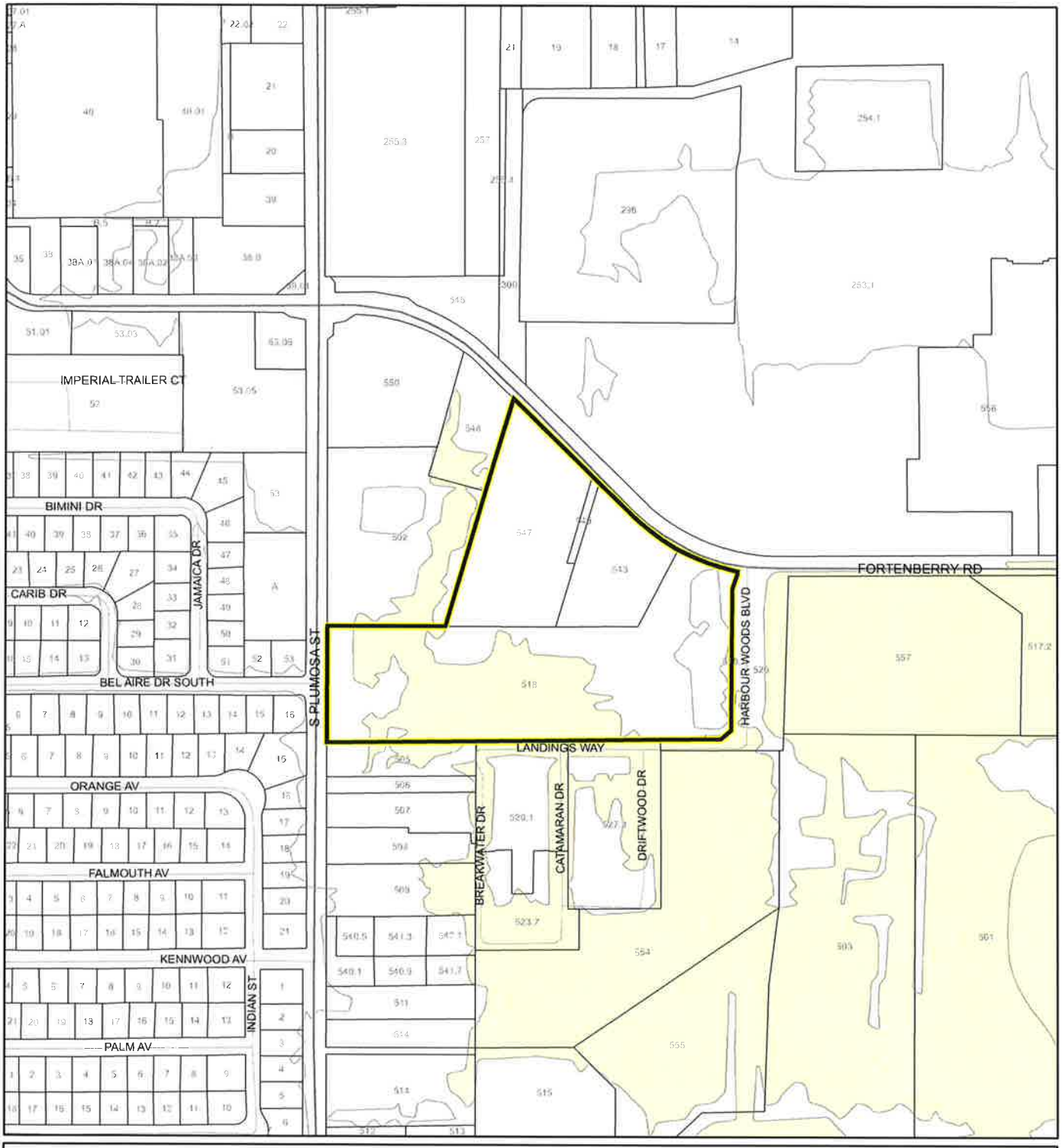
Subject Property

Parcels

FEMA FLOOD ZONES MAP

NDA MERRITT PROJECT ZENITH, LLC; SES MERRITT PROJECT ZENITH, LLC

22Z00062



N

W E

S

1:4,800 or 1 inch = 400 feet

This map was compiled from recorded documents and does not reflect an actual survey. The Brevard County Board of County Commissioners does not assume responsibility for errors or omissions hereon.

Produced by BoCC - GIS Date: 12/13/2022

FEMA Flood Zones

A AO X

AE Open Water

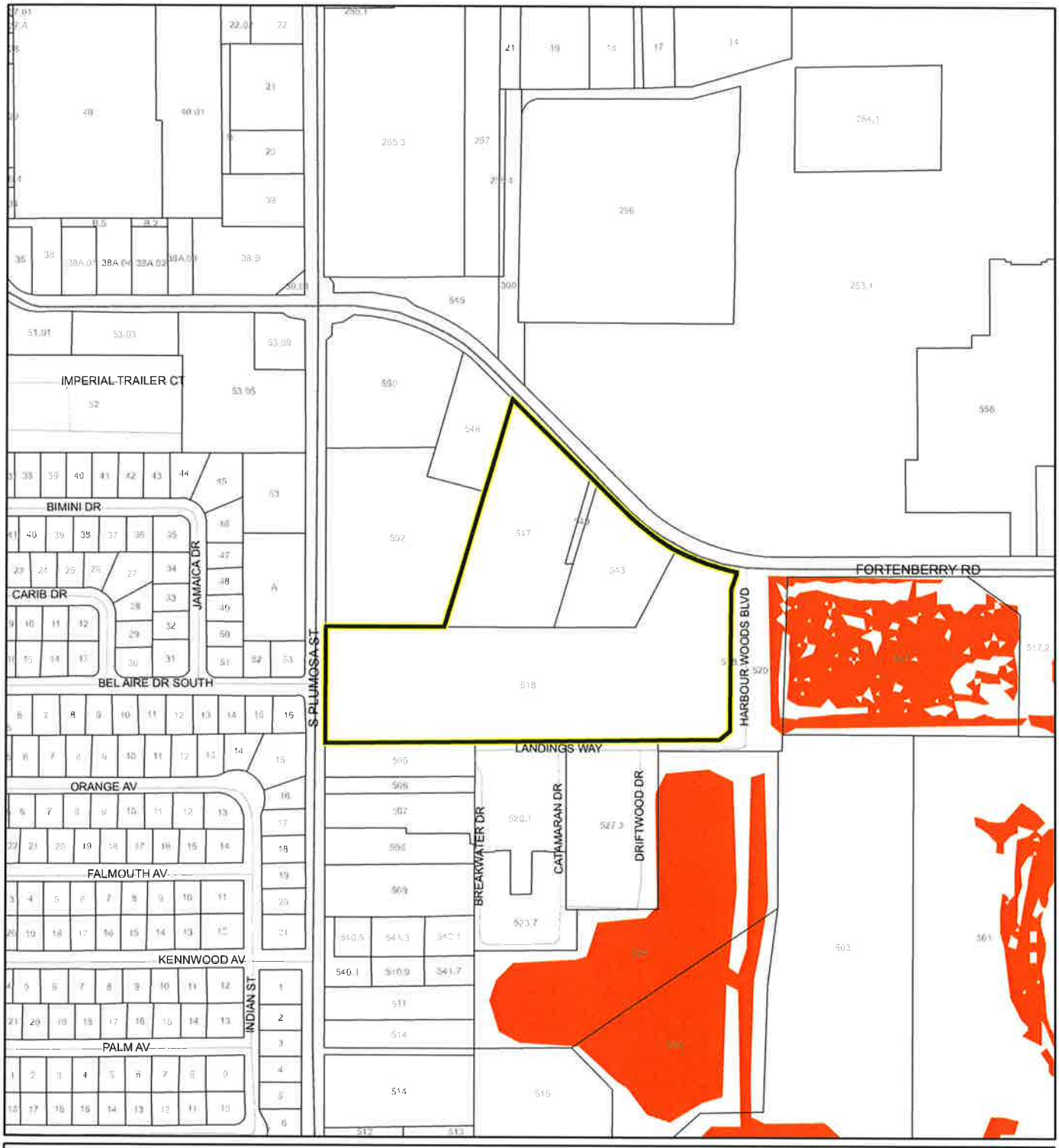
AH VE

Subject Property Parcels

COASTAL HIGH HAZARD AREA MAP

NDA MERRITT PROJECT ZENITH, LLC; SES MERRITT PROJECT ZENITH, LLC

22Z00062



N

W E

S

1:4,800 or 1 inch = 400 feet

This map was compiled from recorded documents and does not reflect an actual survey. The Brevard County Board of County Commissioners does not assume responsibility for errors or omissions hereon.

Produced by BoCC - GIS Date: 12/13/2022

Subject Property

Parcels

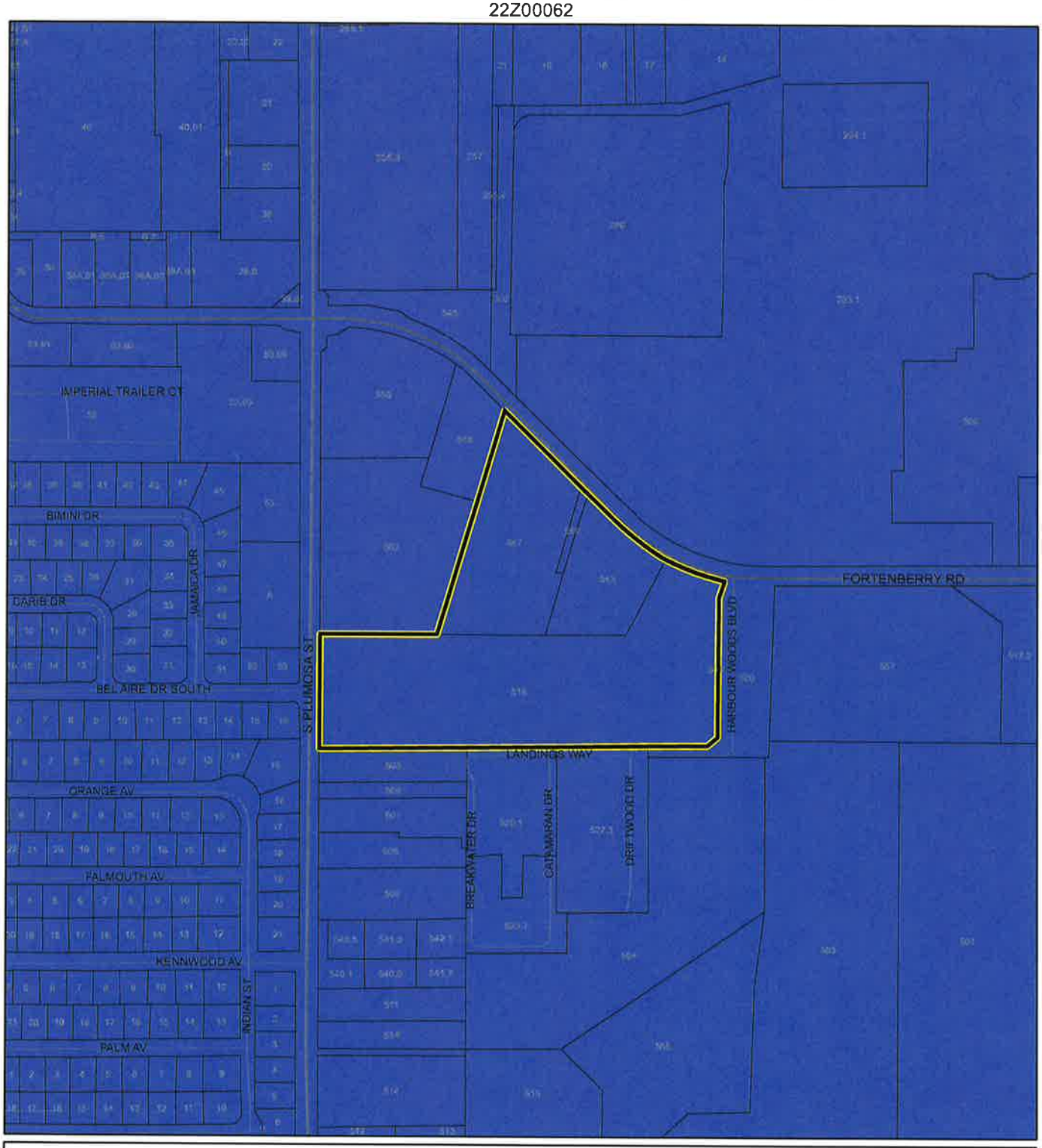
Coastal High Hazard Area

SurgeZoneCat1

INDIAN RIVER LAGOON SEPTIC OVERLAY MAP

NDA MERRITT PROJECT ZENITH, LLC; SES MERRITT PROJECT ZENITH, LLC

22Z00062



N

W E

S

1:4,800 or 1 inch = 400 feet

This map was compiled from recorded documents and does not reflect an actual survey. The Brevard County Board of County Commissioners does not assume responsibility for errors or omissions hereon.

Produced by BoCC - GIS Date: 12/13/2022

Subject Property

Parcels

Septic Overlay

40 Meters

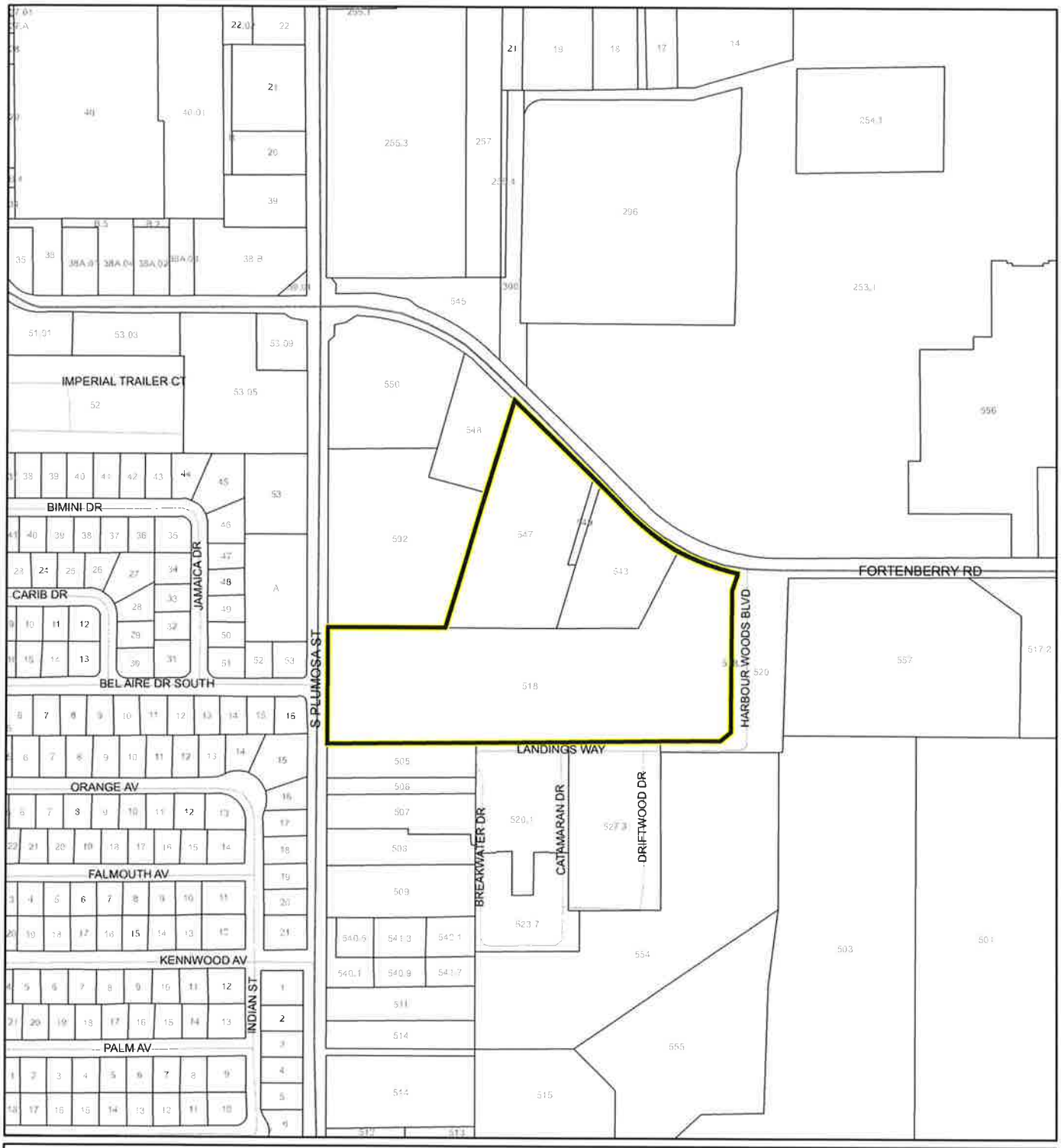
60 Meters

All Distances

EAGLE NESTS MAP

NDA MERRITT PROJECT ZENITH, LLC; SES MERRITT PROJECT ZENITH, LLC

22Z00062



N

W E

S

1:4,800 or 1 inch = 400 feet

This map was compiled from recorded documents and does not reflect an actual survey. The Brevard County Board of County Commissioners does not assume responsibility for errors or omissions hereon.

Produced by BoCC - GIS Date: 12/13/2022

Subject Property

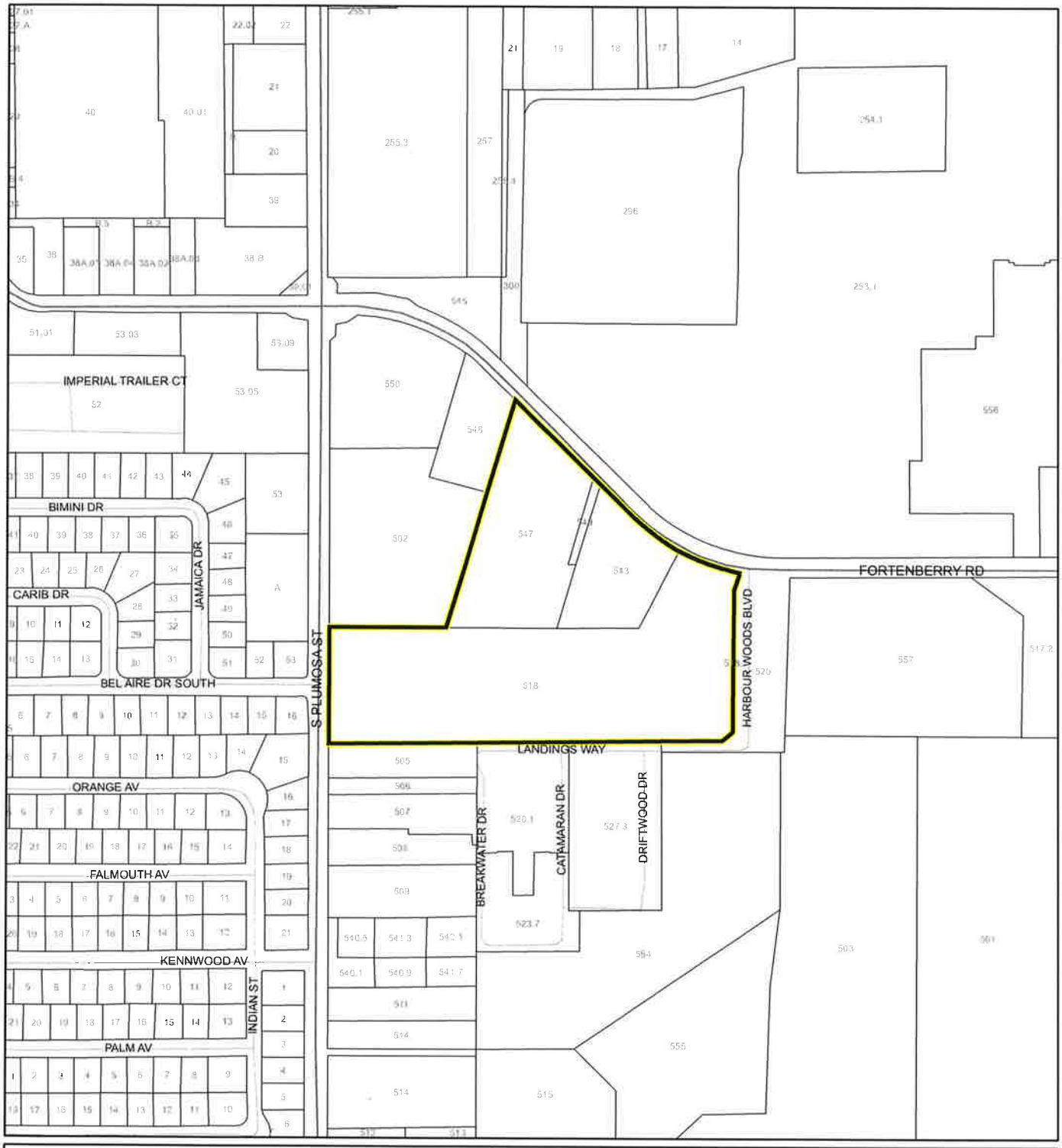
Parcels

Eagle Nests FWS 2010

SCRUB JAY OCCUPANCY MAP

NDA MERRITT PROJECT ZENITH, LLC; SES MERRITT PROJECT ZENITH, LLC

22Z00062



N

W E

S

1:4,800 or 1 inch = 400 feet

Subject Property

Parcels

Scrub Jay Occupancy

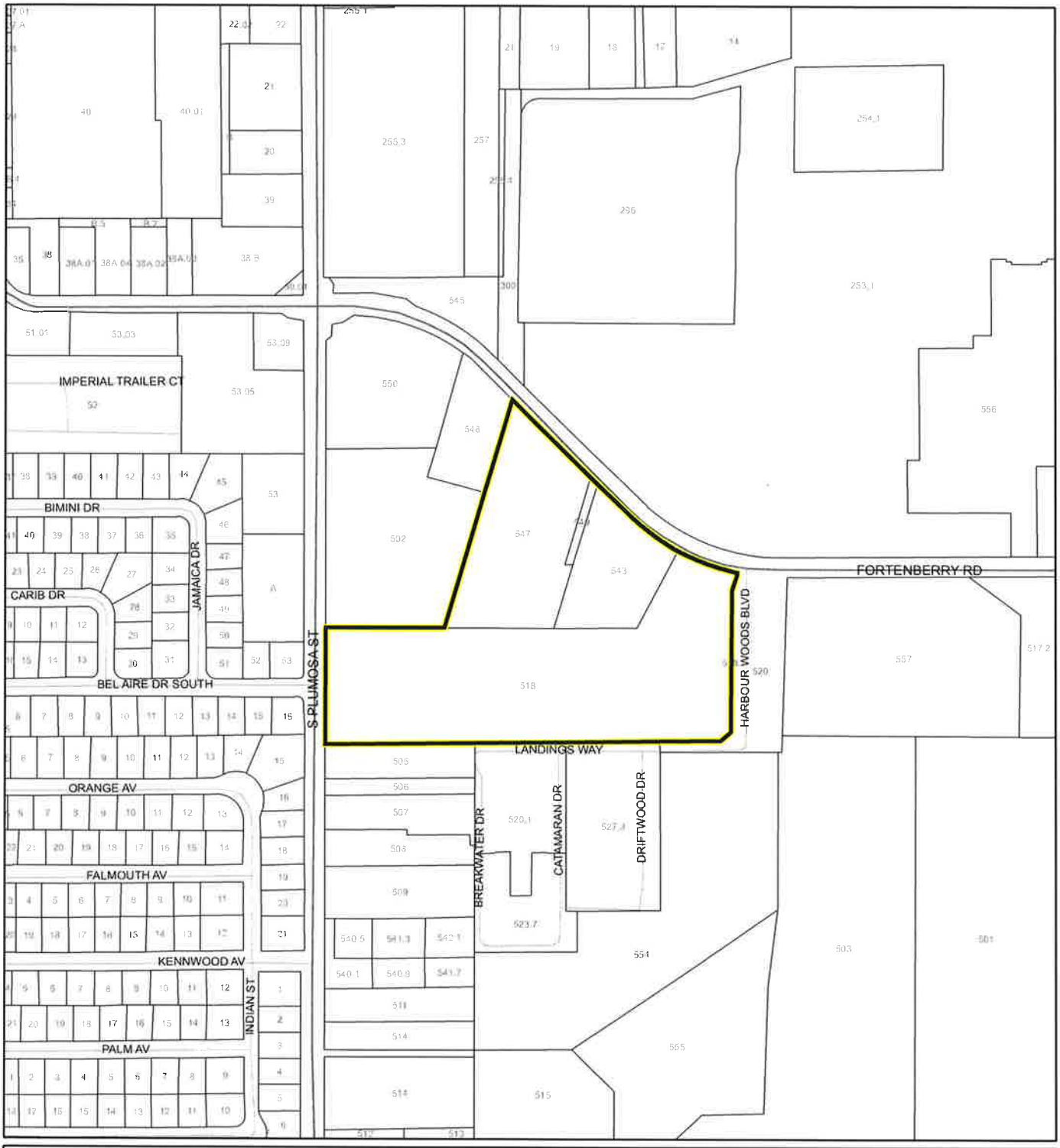
This map was compiled from recorded documents and does not reflect an actual survey. The Brevard County Board of County Commissioners does not assume responsibility for errors or omissions hereon.

Produced by BoCC - GIS Date: 12/13/2022

SJRWMD FLUCCS UPLAND FORESTS - 4000 Series MAP

NDA MERRITT PROJECT ZENITH, LLC; SES MERRITT PROJECT ZENITH, LLC

22Z00062



N

W E

S

1:4,800 or 1 inch = 400 feet

This map was compiled from recorded documents and does not reflect an actual survey. The Brevard County Board of County Commissioners does not assume responsibility for errors or omissions hereon.

Produced by BoCC - GIS Date: 12/13/2022

SJRWMD FLUCCS Upland Forests

- Upland Coniferous Forest - 4100 Series
- Upland Hardwood Forest - 4200 Series
- Upland Mixed Forest - 4300 Series
- Tree Plantations - 4400 Series

Subject Property

Parcels

Existing BDP
22Z00062

CFN:2001069824 04-11-2001 08:14 am
OR Book/Page: 4321 / 0948

RETURN: Clerk to the Board #27

Prepared by: Richard S. Amari, Esquire
96 Willard St., Suite 302
Cocoa, Florida 32922

FIRST AMENDMENT TO THE AMENDED AND RESTATED BINDING DEVELOPMENT PLAN

THIS AMENDMENT, entered into this 5th day of April, 2001, between the BOARD OF COUNTY COMMISSIONERS OF BREVARD COUNTY, FLORIDA, a political subdivision of the State of Florida (hereinafter referred to as "County"), and IPCO, INC., a Florida corporation (hereinafter referred to as "Developer/Owner")

Scott Ellis
Clerk Of Courts, Brevard County
#Pgs: 4 #Names: 2
Trust: 2.50 Rec: 17.00 Serv: 0.00
Deed: 0.00 Excise: 0.00
Mtg: 0.00 Int Tax: 0.00

RECITALS

WHEREAS, the Developer/Owner owns a certain parcel of property ("Property") which was originally subject to a Binding Development Plan, dated February 20, 1990, recorded in Official Records Book 3049, Page 51 through 57, Public Records of Brevard County, Florida ("Original Binding Development Plan"); and

WHEREAS, the Original Binding Development Plan was superseded by the Amended and Restated Binding Development Plan dated December 29, 1998, ("Amended and Restated Binding Development Plan") recorded in the Official Records Book 3954, Page 0181 through 0189; and

WHEREAS, the improvements to the Property which were the subject of the Amended and Restated Binding Development Plan were described and depicted on a concept plan attached to the Amended and Restated Binding Development Plan as Exhibit "B" ("Original Concept Plan"); and

WHEREAS, Developer/Owner desires to make certain improvements to the Property including expanding the existing skateboard ramp facility and creating a covered section of such ramp, pursuant to the Brevard County Code, Section 62-1157; and

WHEREAS, a new concept plan has been drafted to reflect the additional improvements to the Property contemplated by this Amendment ("New Concept Plan"); and

WHEREAS, the parties desire to amend the Amended and Restated Binding Development Plan to substitute the New Concept Plan for the Original Concept Plan in order to properly reflect the improvements planned for the Property.

NOW, THEREFORE, the parties agree to amend the Amended and Restated Binding Development Plan as follows:

1. The concept plan attached to the Amended and Restated Binding Development Plan as Exhibit "B" and recorded in Official Records Book 3954, Page 0187, is deleted in its entirety and the concept plan attached as Exhibit "A" to this Amendment is substituted in lieu thereof.

IN WITNESS THEREOF, the parties hereto have caused these presents to be signed all as of the date and year first written above.

ATTEST:

SCOTT ELLIS, Clerk

(SEAL)

STATE OF FLORIDA
COUNTY OF BREVARD

This is to certify that the foregoing is a true and current copy of Agreement witness my hand and official seal this 19th day of April 20 01
SCOTT ELLIS
Clerk Circuit Court
BY D.D. D.C.

BOARD OF COUNTY COMMISSIONERS
OF BREVARD COUNTY, FLORIDA
2725 Judge Fran Jamieson Way
Viera, Florida 32940

By: Susan Carlson

Susan Carlson
(Print Name of Chairman) Chairman
As approved by the Board on 12-7-00

CFN:2001069824
OR Book/Page: 4321 / 0949

2

STATE OF FLORIDA
COUNTY OF BREVARD

The foregoing instrument was acknowledged before me this 5th day of April, 2001, by SUSAN CARLSON, Chairman of the Board of County Commissioners of Brevard County, Florida, who is personally known to me or who has produced _____ as identification.

(SEAL)

BERNADETTE S. TALBERT
MY COMMISSION # CC 936140
EXPIRES: May 14, 2004
Bonded Thru Notary Public Underwriters

Bernadette S. Talbert
Notary Public
Print Name or Stamp_____

WITNESSES:

Lynella Rigg
Print Name: Lynella Rigg

Marsha Lindfest
Print Name: Marsha Lindfest

IPCO, INC., OWNER

By: Richard Bonas
Print Name: Richard Bonas, President

STATE OF FLORIDA
COUNTY OF BREVARD

The foregoing instrument was acknowledged before me this 22nd day of December, 2000, by Richard Bonas, President of IPCO, INC.; ☒who is personally known to me or ☐who has produced _____ as identification.

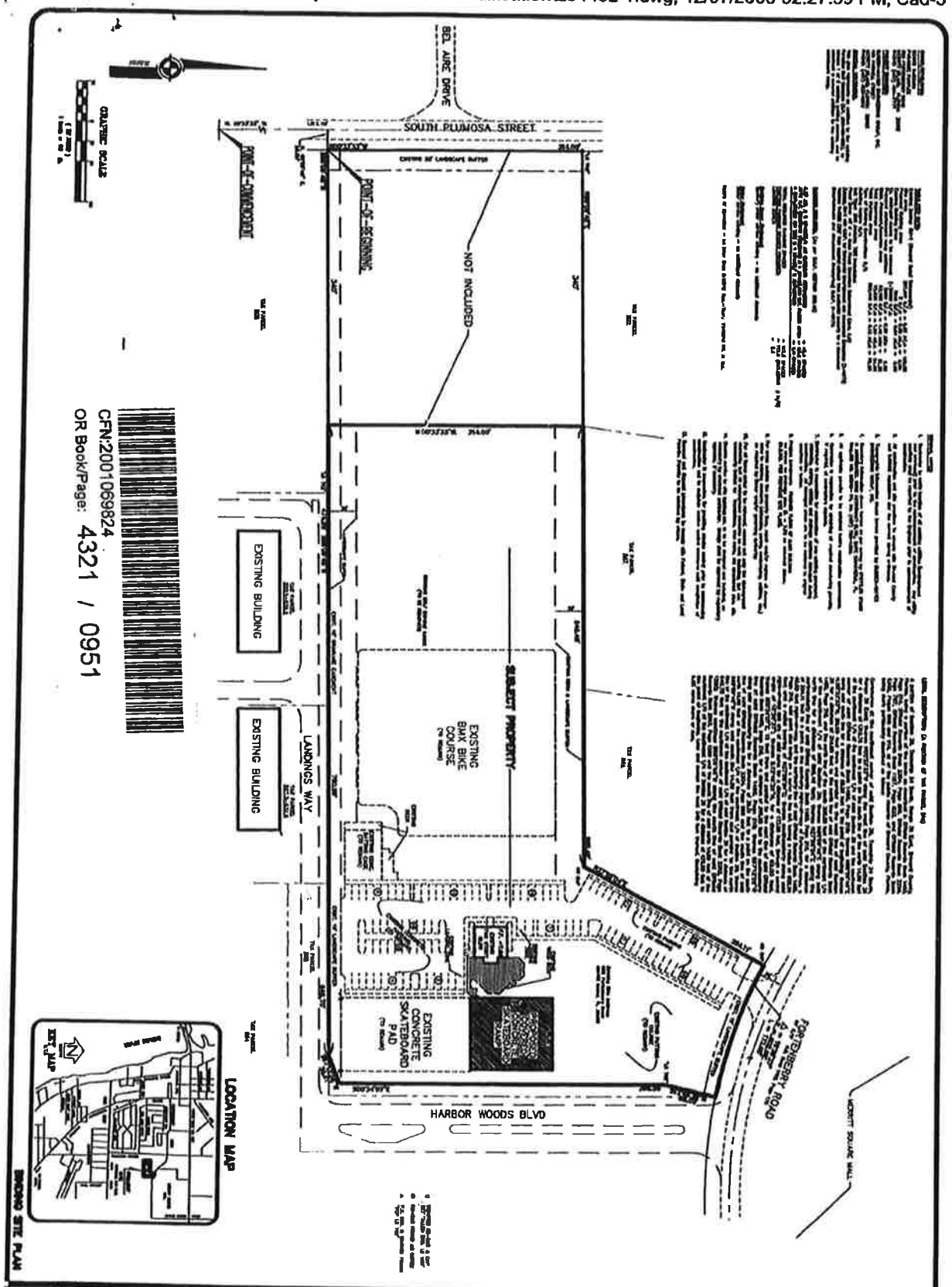
NOTARY PUBLIC - STATE OF FLORIDA
STACY S. HURLBUT
COMMISSION # CC753403
EXPIRES 9/5/2002
BONDED THRU ASA 1-888-NOTARY1

Stacy S. Hurlbut
Notary Public
Print Name or Stamp Stacy S. Hurlbut

CFN:2001069824
OR Book/Page: 4321 / 0950

Z10546

G:\Dwg\Eng\294402-Paradise Funplex-skateboard modification\294402-1.dwg, 12/07/2000 02:27:59 PM, Cad-3



CFN:2001069824
OR Book/Page: 4321 / 0951

Exhibit "A"

710546

256

Existing BDP
22Z00062

RETURN: Clerk to the Board #27

Brevard Ventures, Inc./KEW LLC
Prepared by: Rochelle W. Lawandales, AICP
Lawandales Planning Affiliates
Address: 2200 Front Street
Melbourne, Florida 32901
Phone: 321.757.3197
Fax: 321.757.3088

Scott Ellis
Clerk Of Courts, Brevard County
#Pgs: 5 #Names: 2
Trust: 3.00 Rec: 41.00 Serv: 0.00
Rec: 0.00 Excise: 0.00
Mtg: 0.00 nt Tax: 0.00

CFN:2006052338 02-22-2006 11:04 am
OR Book/Page: 5607 / 5085

BINDING DEVELOPMENT PLAN

THIS AGREEMENT, entered into this 21 day of February, 20 06, between the BOARD OF COUNTY COMMISSIONERS OF BREVARD COUNTY, FLORIDA, a political subdivision of the State of Florida (hereinafter referred to as "County") and Brevard Ventures, Inc./KEW LLC, owners of real property located at 505 Fortenberry Road, Merritt Island, Florida (hereinafter referred to as "Developer/Owner").

RECITALS

WHEREAS, Developer/Owner owns property (hereinafter referred to as the "Property") in Brevard County, Florida, as more particularly described in Exhibit "A" attached hereto and incorporated herein by this reference; and

WHEREAS, Developer/Owner desires to develop the property as commercial, with office and mini-storage uses pursuant to the Brevard County Code, Section 62-1157; and

WHEREAS, as part of its plan for development of the property, Developer/Owner wishes to mitigate negative impact on abutting land owners and affected facilities or services; and

WHEREAS, the County is authorized to regulate development of the property.

NOW, THEREFORE, the parties agree as follows:

1. The County shall not be required or obligated in any way to construct or maintain or participate in any way in the construction or maintenance of the improvements. It is the intent of the parties that the Developer/Owner, its grantees, successors or assigns in interest or some other association and/or assigns satisfactory to the County shall be responsible for the maintenance of any improvements.
2. The Developer/Owner shall limit the BU-2 zoning to the portion of the land described as Tax parcel #547 on the sketch of legal description dated 10/7/05 by Packard Surveying, containing 2.636 acres more or less. (copy attached)

Z11144

257

→ RETURN: Clerk to the Board #27

3. The Developer/owner shall limit the uses under the BU2 zoning district classification to only that of "mini warehouse (self storage)'. No other BU-2 uses shall be permitted. Any other uses of the subject property shall be limited to those identified within the Brevard County Land Development Code under the BU1 Commercial Zoning category as "Permited Uses".
4. No businesses shall be allowed to be conducted from within the storage units.
5. Developer/Owner shall comply with all regulations and ordinances of Brevard County, Florida. This Agreement constitutes Developer's/Owner's agreement to meet additional standards or restrictions in developing the property. This agreement provides no vested rights against changes to the comprehensive plan or land development regulations as they may apply to this property.
4. Developer/Owner, upon execution of this Agreement, shall pay to the County the cost of recording this Agreement in Brevard County, Florida.
5. This Agreement shall be binding and shall inure to the benefit of the successors or assigns of the parties and shall run with the subject property unless or until rezoned and be binding upon any person, firm or corporation who may become the successor in interest directly or indirectly to the subject property, and be subject to the above referenced conditions as approved by the Board of County Commissioners on 11/3/05. In the event the subject property is annexed into a municipality and rezoned, this Agreement shall be null and void.
6. Violation of this Agreement will also constitute a violation of the Zoning Classification and this Agreement may be enforced by Sections 1.7 and 62-5, Code of Ordinances of Brevard County, Florida, as it may be amended.

IN WITNESS THEREOF, the parties hereto have caused these presents to the signed all as of the date and year first written above.

ATTEST:

Scott Ellis, Clerk
(SEAL)

BOARD OF COUNTY COMMISSIONERS
OF BREVARD COUNTY, FLORIDA
2725 Judge Fran Jamieson Way
Viera, FL 32940

Helen Voltz, Chair
As approved by the Board on February 21, 2006

Z11144

→ RETURN: Clerk to the Board #27

STATE OF FLORIDA §
COUNTY OF BREVARD §

The foregoing instrument was acknowledged before me this 21 day of February, 20 06 by Helen Voltz, Chair of the Board of County Commissioners of Brevard County, Florida, who is personally known to me or who has produced _____ as identification.

Tamara J. Ricard
Notary Public

My commission expires
SEAL
Commission No.:

TAMARA J. RICARD
Notary Public - State of Florida
My Commission Expires Nov 9, 2009
Commission # DD 489244
Bonded By National Notary Assn.

Tamara J. Ricard
(Name typed, printed or stamped)

(Please note: You must have two witnesses and a notary for each signature required. The notary may serve as one witness.)

WITNESSES:

Signature

Paula Darby
(Witness Name typed or printed)

Signature

Jill M. Veltri
(Witness Name typed or printed)

DEVELOPER/OWNER

Signature

P.O. Box 541682
Merritt Island, FL 32954-1682
(Address)

STATE OF Florida §
COUNTY OF Brevard §

The foregoing instrument was acknowledged before me this 24 day of January, 2006 by _____, President of _____, who is personally known to me or who has produced _____ as identification.

Carol A Chermanski
Notary Public

My commission expires
SEAL
Commission No.:

Carol A Chermanski
(Name typed, printed or stamped)

CAROL A. CHERMANSKI
MY COMMISSION # DD 377694
EXPIRES: January 24, 2009
Bonded Thru Budget Notary Services

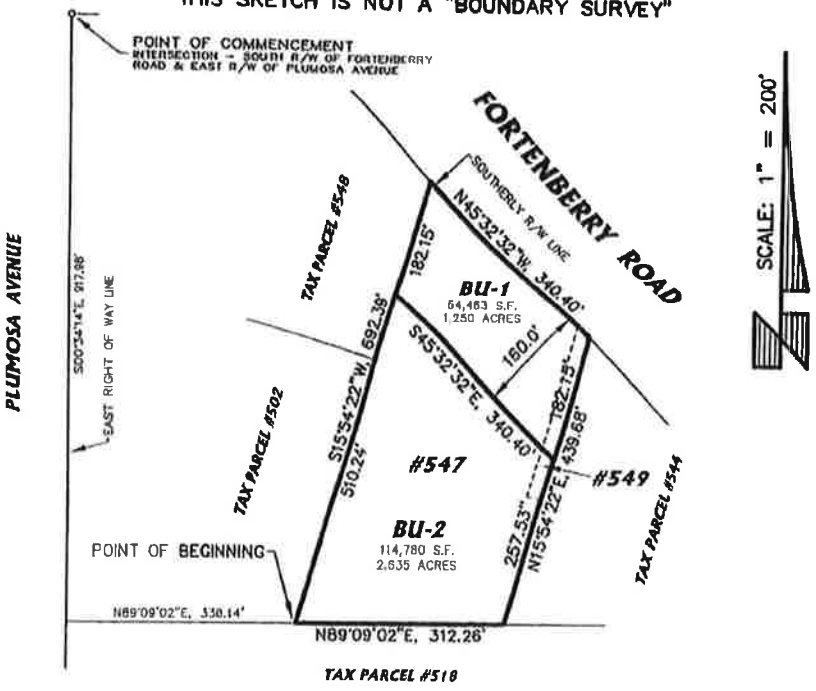
21144

259

EXHIBIT A
LEGAL DESCRIPTION OF PARCEL

SKETCH TO ACCOMPANY DESCRIPTION

THIS SKETCH IS NOT A "BOUNDARY SURVEY"



TAX PARCELS #547 & #549

DESCRIPTION – "BU-1":

THE NORTHEASTERLY 160 FEET OF THE FOLLOWING DESCRIBED PARCEL:

A PARCEL OF LAND LYING IN SECTION 36, TOWNSHIP 24 SOUTH, RANGE 36 EAST, BREVARD COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS: COMMENCE AT THE INTERSECTION OF THE SOUTH RIGHT OF WAY LINE OF FORTENBERRY ROAD WITH THE EAST RIGHT OF WAY LINE OF PLUMOSA AVENUE, AND RUN S.00°34'14"E., ALONG SAID EAST RIGHT OF WAY LINE, A DISTANCE OF 917.98 FEET; THENCE N.89°09'02"E., A DISTANCE OF 338.14 FEET TO THE POINT OF BEGINNING; THENCE CONTINUE N.89°09'02"E., A DISTANCE OF 312.26 FEET; THENCE N.15°54'22"E., A DISTANCE OF 439.68 FEET TO A POINT ON THE SOUTHERLY RIGHT OF WAY LINE OF FORTENBERRY ROAD; THENCE N.45°32'32"W., ALONG SAID SOUTHERLY RIGHT OF WAY LINE, A DISTANCE OF 340.40 FEET; THENCE S.15°54'22"W., A DISTANCE OF 692.39 FEET TO THE POINT OF BEGINNING; CONTAINING 1.250 ACRES.

DESCRIPTION – "BU-2":

A PARCEL OF LAND LYING IN SECTION 36, TOWNSHIP 24 SOUTH, RANGE 36 EAST, BREVARD COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS: COMMENCE AT THE INTERSECTION OF THE SOUTH RIGHT OF WAY LINE OF FORTENBERRY ROAD WITH THE EAST RIGHT OF WAY LINE OF PLUMOSA AVENUE, AND RUN S.00°34'14"E., ALONG SAID EAST RIGHT OF WAY LINE, A DISTANCE OF 917.98 FEET; THENCE N.89°09'02"E., A DISTANCE OF 338.14 FEET TO THE POINT OF BEGINNING; THENCE CONTINUE N.89°09'02"E., A DISTANCE OF 312.26 FEET; THENCE N.15°54'22"E., A DISTANCE OF 439.68 FEET TO A POINT ON THE SOUTHERLY RIGHT OF WAY LINE OF FORTENBERRY ROAD; THENCE N.45°32'32"W., ALONG SAID SOUTHERLY RIGHT OF WAY LINE, A DISTANCE OF 340.40 FEET; THENCE S.15°54'22"W., A DISTANCE OF 692.39 FEET TO THE POINT OF BEGINNING; LESS AND EXCEPT THE NORTHEASTERLY 160 FEET THEREOF; CONTAINING 2.635 ACRES.

DRAWN BY: RMP CHK'D BY: DATE: 10/7/05 JOB #: 05-204	PREPARED FOR AND CERTIFIED TO:	r.m. packard surveying & assoc. inc. mapping 1013 ROCKLEDGE DRIVE ROCKLEDGE, FLORIDA 32955 TEL.: (321) 632-6335
SHEET 1 OF 1	SKETCH / DESCRIPTION FOR: BREVARD VENTURES, INC.	

21144

JOINDER IN BINDING DEVELOPMENT PLAN

KNOW ALL MEN BY THESE PRESENTS, that the undersigned, being the authorized agent and signatory for the owner and holder of that certain Mortgage dated 11/21/2005, given by , as mortgagor, in favor of the undersigned, RBC Centura Bank, as mortgagee, recorded in Official Records Book 5568, page 7795, Public Records of Brevard County, Florida, and encumbering lands described in said Mortgage, does hereby join in the foregoing Binding Development Plan for the purpose of subordinating the lien of the undersigned's Mortgage to said Binding Development Plan.

WITNESSES:

Vicki L Kay
Vicki L Kay
(Witness name typed or printed)

Connie DeLosa
Connie DeLosa
(Witness name typed or printed)

MORTGAGEE
RBC Centura Bank
16769 N. Wickham Rd Suite B100
(Address) Melbourne, FL 32940

Rebecca Collura
Authorized Agent Signature
Rebecca Collura, VP
(Name typed, printed or stamped)

STATE OF FLORIDA §
COUNTY OF BREVARD §

The foregoing instrument was acknowledged before me this 24 day of January, 2006 by Rebecca Collura, who is personally known to me or who has produced _____ as identification.

My commission expires

Ann Leighton
Notary Public

SEAL
Commission No.:

Ann Leighton
Commission #DD296631
Expires: Mar 05, 2008
Bonded Thru
Atlantic Bonding Co., Inc.
(Name typed, printed or stamped)

Ann Leighton
Commission #DD296631
Expires: Mar 05, 2008
Bonded Thru
Atlantic Bonding Co., Inc.

Z11144
1/22/2008

Development Project ID: 22Z0062 - Fortenberry Apartments

Second Supplement to PUD Application

January 25, 2023

The Applicant is submitting this Second Supplement to the PUD Application, pursuant to Sec. 62-1442(c), regarding the alternative development standards requested by Applicant.

The latest PDP submitted to the County, dated 1.6.23, requested three (3) waivers: a setback waiver; an open space waiver; and an access point waiver. Based upon discussion with County Staff, and the condition recommended by the Planning and Zoning Board, the Applicant now seeks only two waivers.

WAIVER #1 (formerly #2) seeks a waiver from the required 5.5 acre of open space required, but the Waiver Table incorrectly stated that the required amount was 5.48 acres. WAIVER #1 seeks a waiver of 1.1 acres of open space from the 5.5 acres required pursuant to Art. VI, Div. 4, Sec. 62-1446(c). Applicant is providing 4.45 acres of open space.

WAIVER #2 (formerly #3) seeks a waiver of one access point from the three required pursuant to Art. VII, Div. 4, Sec. 62-2957(c)(1). Applicant is providing two access points, one on Fortenberry Road and one on Harbor Woods Boulevard. The Planning and Zoning Board recommended only two access points.

The former Waiver #1, a setback waiver pursuant to Art. VI., Div. 6, Sec. 62-2101.5 is withdrawn as it is unnecessary.

School Concurrency
22Z00062
Project Zenith

School Board of Brevard County
2700 Judge Fran Jamieson Way • Viera, FL 32940-6699
Dr. Mark W. Mullins, Ed.D., Superintendent

December 6, 2022

Ms. Jane Hart, Planner III
Land Development Section
Planning & Development Department
Brevard County Board of County Commissioners
2725 Judge Fran Jamieson Way
Viera, Florida 32940

RE: Proposed Fortenberry Road Apartments Development
School Impact Analysis – Capacity Determination CD-2022-49

Dear Ms. Hart,

We received a completed *School Facility Planning & Concurrency Application* for the referenced development. The subject property is Tax Account number 2428002 (Parcel ID number: 24-36-36-00-518), Tax Account number 2428161 (Parcel ID number: 24-36-36-00-547), Tax Account number 2428163 (Parcel ID number: 24-36-36-00-549) and Tax Account number 2428157 (Parcel ID number: 24-36-36-00-543), containing a total of approximately 15 acres in District 2, Brevard County, Florida. The proposed development includes 365 multi-family homes. The School Impact Analysis of this proposed development has been undertaken and the following information is provided for your use.

The calculations used to analyze the prospective student impact are consistent with the methodology outlined in Section 13.2 and Amended Appendix "A"-School District Student Generation Multiplier (approved April 11, 2022) of the *Interlocal Agreement for Public School Facility Planning & School Concurrency (ILA-2014)*. The following capacity analysis is performed using capacities/projected students as shown in years 2022-23 to 2026-27 of the *Brevard County Public Schools Financially Feasible Plan for School Years 2021-22 to 2026-27 which* is attached for reference.

Multi-Family Homes	365		
Students Generated	**Student Generation Rates**	**Calculated Students Generated**	**Rounded Number of Students**
Elementary	0.11	40.15	40
Middle	0.02	7.3	7
High	0.05	18.25	18
Total	0.18		65

Planning & Project Management
Facilities Services
Phone: (321) 633-1000 x11418 • FAX: (321) 633-4646

An Equal Opportunity Employer

FISH Capacity (including relocatable classrooms) from the Financially Feasible Plan (FFP) Data and Analysis for School Years 2022-23 to 2026-27

School	2022-23	2023-24	2024-25	2025-26	2026-27
Tropical	910	910	910	910	910
Jefferson	873	873	873	873	873
Merritt Island	1,962	1,962	1,962	1,962	1,962

Projected Student Membership

School	2022-23	2023-24	2024-25	2025-26	2026-27
Tropical	642	635	614	597	609
Jefferson	622	583	580	583	535
Merritt Island	1,523	1,494	1,454	1,401	1,389

ıdents Generated by Newly Issued SCADL Reservations Since FFP

School	2022-23	2023-24	2024-25	2025-26	2026-27
Tropical	-	-	-	-	-
Jefferson	1	5	10	14	17
Merritt Island	2	10	20	26	33

Cumulative Students Generated by Proposed Development

School	2022-23	2023-24	2024-25	2025-26	2026-27
Tropical	-	-	-	28	40
Jefferson	-	-	-	5	7
Merritt Island	-	-	-	13	18

Total Projected Student Membership (includes Cumulative Impact of Proposed Development)

School	2022-23	2023-24	2024-25	2025-26	2026-27
Tropical	642	635	614	625	649
Jefferson	623	588	590	602	559
Merritt Island	1,525	1,504	1,474	1,440	1,440

Projected Available Capacity = FISH Capacity - Total Projected Student Membership

School	2022-23	2023-24	2024-25	2025-26	2026-27
Tropical	268	275	296	286	261
Jefferson	250	285	283	271	314
Merritt Island	437	458	488	523	522

At this time, Tropical Elementary School, Jefferson Middle School, and Merritt Island Senior High School are projected to have enough capacity for the total of projected and potential students from the Fortenberry Road Apartments development.

This is a **non-binding** review; a *Concurrency Determination* must be performed by the School District prior to a Final Development Order and the issuance of a Concurrency Evaluation Finding of Nondeficiency by the Local Government.

We appreciate the opportunity to review this proposed project. Please let us know if you require additional information.

Sincerely,

Karen M. Black, AICP
Manager – Facilities Planning & Intergovernmental Coordination
Planning & Project Management, Facilities Services

Enclosure: *Brevard County Public Schools Financially Feasible Plan for School Years 2021-22 to 2026-27*

Copy: Susan Hann, AICP, Assistant Superintendent of Facility Services
File CD-2022-49

David G. Lindemann, AICP, Director of Planning & Project Management, Facilities Services
File CD-2022-49

Brevard County Public Schools

Financially Feasible Plan To Maintain Utilization Rates Lower than the 100% Level of Service

Data and Analysis for School Years 2021-22 to 2026-27

Summary	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27
Highest Utilization Elementary Schools:	88%	89%	95%	98%	97%	99%
Highest Utilization Middle Schools:	88%	89%	90%	89%	92%	96%
Highest Utilization Jr / Sr High Schools:	84%	84%	82%	82%	79%	78%
Highest Utilization High Schools:	101%	100%	99%	95%	94%	97%

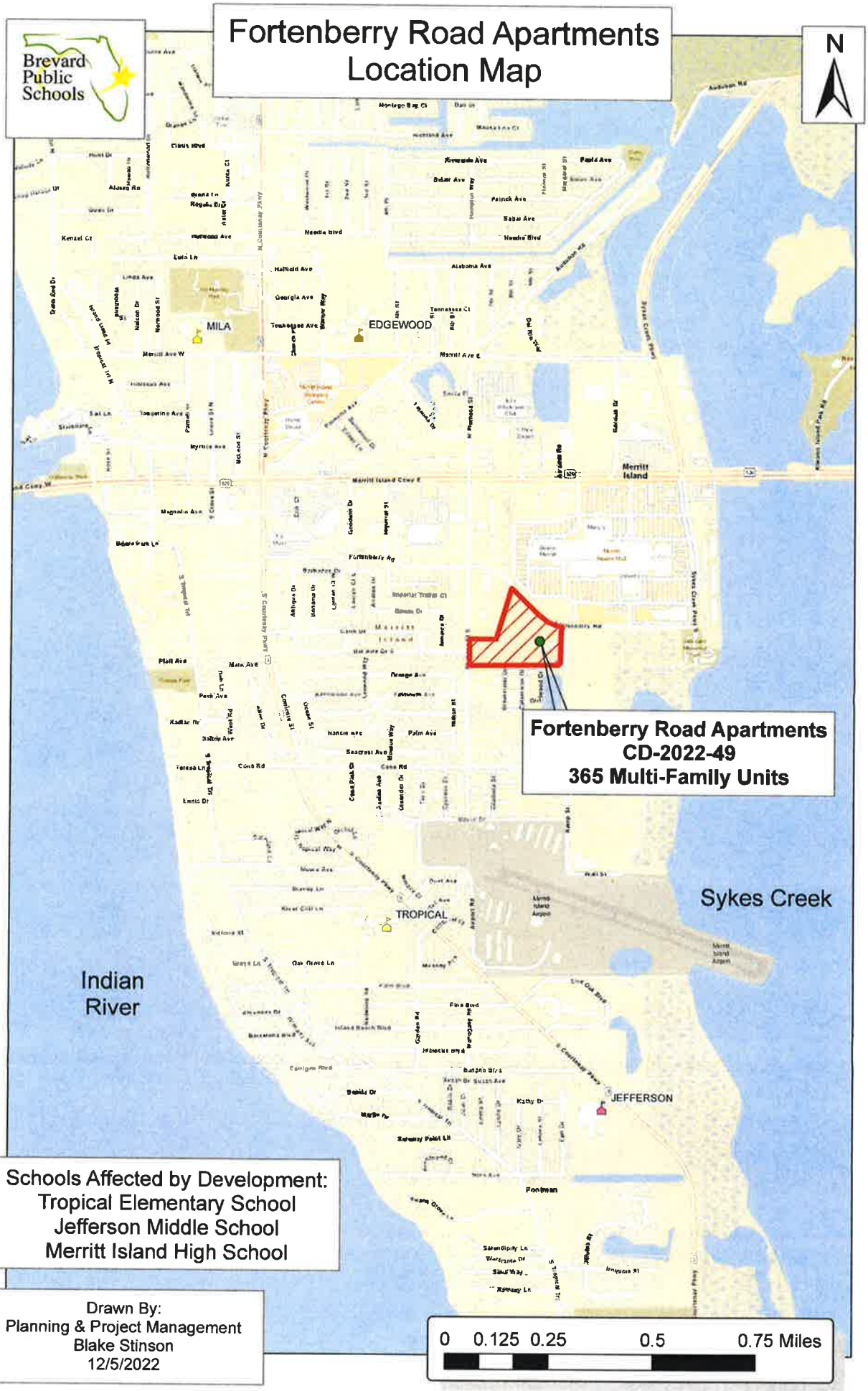
School	Type	Grades	Utilization Factor	School Year 2021-22			School Year 2022-23			School Year 2023-24			School Year 2024-25			School Year 2025-26			School Year 2026-27		
				FISH Capacity	10/15/21 Member-ship	Total Capacity Utilization	Future FISH Capacity	Student Projection	Total Capacity Utilization	Future FISH Capacity	Student Projection	Total Capacity Utilization	Future FISH Capacity	Student Projection	Total Capacity Utilization	Future FISH Capacity	Student Projection	Total Capacity Utilization	Future FISH Capacity	Student Projection	Total Capacity Utilization
Elementary School Concurrency Service Areas																					
Allen	Elementary	PK-6	100%	751	630	84%	751	632	84%	751	694	92%	751	739	98%	773	752	97%	773	738	95%
Andersen	Elementary	K-6	100%	884	592	67%	884	591	67%	884	597	68%	884	589	67%	884	565	64%	884	554	63%
Apollo	Elementary	K-6	100%	902	782	87%	902	783	87%	902	755	84%	902	761	84%	902	739	82%	902	729	81%
Atlantis	Elementary	PK-6	100%	739	629	85%	739	630	85%	739	616	83%	739	600	81%	739	592	80%	739	576	78%
Audubon	Elementary	PK-6	100%	761	464	61%	761	464	61%	761	458	60%	761	438	58%	761	427	56%	761	440	58%
Cambridge	Elementary	PK-6	100%	765	506	66%	765	506	66%	765	513	67%	765	510	67%	765	485	63%	765	480	63%
Cape View	Elementary	PK-6	100%	570	278	49%	570	285	50%	570	287	50%	570	281	49%	570	286	50%	570	284	50%
Carroll	Elementary	K-6	100%	751	614	82%	751	619	82%	751	605	81%	751	613	82%	751	600	80%	751	593	79%
Challenger 7	Elementary	PK-6	100%	573	506	88%	573	508	89%	573	476	83%	573	449	78%	573	437	76%	573	414	72%
Columbia	Elementary	PK-6	100%	751	462	62%	751	484	64%	751	546	73%	751	568	76%	751	569	76%	751	572	76%
Coquina	Elementary	K-6	100%	711	534	75%	711	531	75%	711	557	78%	711	572	80%	711	598	84%	711	602	85%
Creel	Elementary	PK-6	100%	1,114	717	64%	1,114	762	68%	1,114	812	73%	1,114	847	76%	1,114	877	79%	1,114	922	83%
Croton	Elementary	PK-6	100%	795	487	61%	795	488	61%	795	530	67%	795	559	70%	795	586	74%	795	604	76%
Discovery	Elementary	PK-6	100%	980	615	63%	980	644	66%	980	639	65%	980	633	65%	980	608	62%	980	611	62%
Endeavour	Elementary	PK-6	100%	968	657	68%	968	670	69%	968	668	69%	968	641	66%	968	627	65%	968	640	66%
Enterprise	Elementary	K-6	100%	729	605	83%	729	608	83%	729	587	81%	729	561	77%	729	529	73%	729	513	70%
Fairglen	Elementary	PK-6	100%	789	581	74%	789	580	74%	789	597	76%	789	620	79%	789	626	79%	789	639	81%
Gemini	Elementary	K-6	100%	711	427	60%	711	442	62%	711	440	62%	711	424	60%	711	420	59%	711	409	58%
Golfview	Elementary	PK-6	100%	777	454	58%	777	454	58%	777	467	60%	777	503	65%	777	513	66%	777	521	67%
Harbor City	Elementary	PK-6	100%	629	359	57%	629	357	57%	629	386	61%	629	399	63%	629	400	64%	629	411	65%
Holland	Elementary	PK-6	100%	605	444	73%	605	465	77%	605	471	78%	605	473	78%	605	472	78%	605	477	79%
Imperial Estates	Elementary	K-6	100%	729	624	86%	729	622	85%	729	626	86%	729	619	85%	729	620	85%	729	645	88%
Indialantic	Elementary	K-6	100%	798	671	84%	798	672	84%	798	658	82%	798	646	81%	798	620	78%	798	622	78%
Jupiter	Elementary	PK-6	100%	930	724	78%	930	721	78%	930	817	88%	930	857	92%	930	854	92%	952	920	97%
Lockmar	Elementary	PK-6	100%	892	632	71%	892	631	71%	892	594	67%	892	578	65%	892	559	63%	892	553	62%
Longleaf	Elementary	PK-6	100%	790	594	75%	790	594	75%	790	587	74%	790	583	74%	790	565	72%	790	551	70%
Manatee	Elementary	K-6	100%	998	843	84%	998	855	86%	998	815	82%	998	793	79%	998	765	77%	998	750	75%
McAuliffe	Elementary	PK-6	100%	918	634	69%	918	633	69%	918	624	68%	918	583	64%	918	576	63%	918	565	62%
Meadowlane Intermediate	Elementary	3-6	100%	1,114	832	75%	1,114	832	75%	1,114	902	81%	1,114	920	83%	1,114	950	85%	1,114	950	85%
Meadowlane Primary	Elementary	K-6	100%	824	678	82%	824	678	82%	824	731	89%	824	725	88%	824	734	89%	824	731	89%
Mila	Elementary	PK-6	100%	707	438	62%	707	432	61%	707	430	61%	707	444	63%	707	417	59%	707	416	59%
Mims	Elementary	PK-6	100%	725	431	59%	725	442	61%	725	433	60%	725	441	61%	725	452	62%	725	446	62%
Oak Park	Elementary	PK-6	100%	968	561	58%	968	563	58%	968	554	57%	968	510	53%	968	508	52%	968	523	54%
Ocean Breeze	Elementary	PK-6	100%	654	538	82%	654	543	83%	654	524	80%	654	506	77%	654	484	74%	654	472	72%
Palm Bay Elem	Elementary	PK-6	100%	983	547	56%	983	567	58%	983	571	58%	983	570	58%	983	602	61%	983	622	63%
Pinewood	Elementary	PK-6	100%	569	496	87%	569	500	88%	569	517	91%	569	524	92%	569	526	92%	569	532	93%
Port Malabar	Elementary	PK-6	100%	852	636	75%	852	636	75%	852	630	74%	852	636	75%	852	645	76%	852	632	74%
Quest	Elementary	PK-6	100%	1,152	673	58%	1,152	673	58%	1,152	694	60%	1,152	722	63%	1,152	734	64%	1,152	728	63%
Riviera	Elementary	PK-6	100%	777	624	80%	777	631	81%	777	681	88%	777	709	91%	777	722	93%	777	750	97%
Roosevelt	Elementary	K-6	100%	599	263	44%	599	261	44%	599	241	40%	599	221	37%	599	202	34%	599	190	32%
Sabal	Elementary	PK-6	100%	785	516	66%	785	507	65%	785	516	66%	785	523	67%	785	516	66%	785	530	68%
Saturn	Elementary	PK-6	100%	976	678	69%	976	679	70%	976	731	75%	976	772	79%	976	822	84%	976	810	83%
Sea Park	Elementary	PK-6	100%	461	299	65%	461	317	69%	461	324	70%	461	324	70%	461	330	72%	461	331	72%
Sherwood	Elementary	PK-6	100%	609	428	70%	609	429	70%	609	429	70%	609	434	71%	609	442	73%	609	441	72%
Sunrise	Elementary	PK-6	100%	913	691	76%	913	690	76%	913	738	81%	935	824	88%	1,001	929	93%	1,067	1,061	99%
Suntree	Elementary	K-6	100%	755	595	79%	755	595	79%	755	584	77%	755	555	74%	755	546	72%	755	523	69%
Surfside	Elementary	K-6	100%	541	408	75%	541	407	75%	541	372	69%	541	345	64%	541	336	62%	541	329	61%
Tropical	Elementary	K-6	100%	910	641	70%	910	642	71%	910	635	70%	910	614	67%	910	597	66%	910	609	67%
Turner	Elementary	PK-6	100%	874	579	66%	874	576	66%	874	621	71%	874	642	73%	874	659	75%	874	694	79%
University Park	Elementary	PK-6	100%	811	466	57%	811	464	57%	811	496	61%	811	554	68%	811	622	77%	811	657	81%
Viera Elem	Elementary	K-6	100%	1,030	585	57%	1,030	635	62%	1,030	671	65%	1,030	742	72%	1,030	826	80%	1,030	902	88%
Westside	Elementary	K-6	100%	857	728	85%	857	761	89%	857	815	95%	879	855	97%	901	872	97%	923	895	97%
Williams	Elementary	PK-6	100%	715	494	69%	715	493	69%	715	483	68%	715	473	66%	715	452	63%	715	438	61%
Elementary Totals				42,471	29,890		42,471	30,184		42,471	30,745		42,515	31,024		42,625	31,190		42,735	31,547	

Middle School Concurrency Service Areas																				
Central	Middle	7-8	90%	1,514	1,171	77%	1,514	1,171	77%	1,514	1,217	80%	1,514	1,238	82%	1,514	1,319	87%	1,514	1,360	90%
DeLaura	Middle	7-8	90%	960	843	88%	960	851	89%	960	829	86%	960	854	89%	960	816	85%	960	787	82%
Hoover	Middle	7-8	90%	680	510	75%	680	510	75%	680	485	71%	680	506	74%	680	550	81%	680	539	79%
Jackson	Middle	7-8	90%	660	574	87%	660	574	87%	660	594	90%	660	556	84%	660	540	82%	660	531	80%
Jefferson	Middle	7-8	90%	873	622	71%	873	622	71%	873	583	67%	873	580	66%	873	583	67%	873	535	61%
Johnson	Middle	7-8	90%	1,064	690	65%	1,064	690	65%	1,064	707	66%	1,064	752	71%	1,064	795	75%	1,064	813	76%
Kennedy	Middle	7-8	90%	869	682	78%	869	682	78%	869	641	74%	869	617	71%	869	628	72%	869	656	75%
Madison	Middle	7-8	90%	781	480	61%	781	480	61%	781	471	60%	781	480	61%	781	457	59%	781	446	57%
McNair	Middle	7-8	90%	611	336	55%	611	350	57%	611	359	59%	611	353	58%	611	362	59%	611	349	57%
Southwest	Middle	7-8	90%	1,211	940	78%	1,211	940	78%	1,211	922	76%	1,211	1,000	83%	1,211	1,119	92%	1,211	1,157	96%
Stone	Middle	7-8	90%	1,024	747	73%	1,024	747	73%	1,024	706	69%	1,024	745	73%	1,024	772	75%	1,024	846	83%
Middle Totals				**10,247**	**7,595**		**10,247**	**7,617**		**10,247**	**7,514**		**10,247**	**7,681**		**10,247**	**7,941**		**10,247**	**8,019**	
Junior / Senior High School Concurrency Service Areas																				
Cocoa	Jr / Sr High	PK, 7-12	90%	2,084	1,516	73%	2,084	1,517	73%	2,084	1,578	76%	2,084	1,627	78%	2,084	1,637	79%	2,084	1,626	78%
Cocoa Beach	Jr / Sr High	7-12	90%	1,445	943	65%	1,445	955	66%	1,445	917	63%	1,445	890	62%	1,445	821	57%	1,445	782	54%
Space Coast	Jr / Sr High	7-12	90%	1,852	1,556	84%	1,852	1,557	84%	1,852	1,526	82%	1,852	1,511	82%	1,852	1,465	79%	1,852	1,448	78%
Jr / Sr High Totals				**5,381**	**4,016**		**5,381**	**4,029**		**5,381**	**4,021**		**5,381**	**4,028**		**5,381**	**3,923**		**5,381**	**3,856**	
Senior High School Concurrency Service Areas																				
Astronaut	High	9-12	95%	1,451	1,077	74%	1,451	1,076	74%	1,451	1,094	75%	1,451	1,086	75%	1,451	1,078	74%	1,451	1,086	75%
Bayside	High	9-12	95%	2,263	1,653	73%	2,263	1,728	76%	2,263	1,850	82%	2,263	1,942	86%	2,263	2,002	88%	2,263	2,069	91%
Eau Gallie	High	PK, 9-12	95%	2,221	1,610	72%	2,221	1,605	72%	2,221	1,634	74%	2,221	1,655	75%	2,221	1,680	76%	2,221	1,700	77%
Heritage	High	9-12	95%	2,314	1,991	86%	2,314	2,038	88%	2,314	2,149	93%	2,314	2,193	95%	2,314	2,179	94%	2,314	2,248	97%
Melbourne	High	9-12	95%	2,370	2,210	93%	2,370	2,208	93%	2,370	2,201	93%	2,370	2,200	93%	2,370	2,151	91%	2,370	2,185	92%
Merritt Island	High	PK, 9-12	95%	1,962	1,523	78%	1,962	1,523	78%	1,962	1,494	76%	1,962	1,454	74%	1,962	1,401	71%	1,962	1,389	71%
Palm Bay	High	PK, 9-12	95%	2,631	1,286	49%	2,631	1,325	50%	2,631	1,467	56%	2,631	1,573	60%	2,631	1,645	63%	2,631	1,643	62%
Rockledge	High	9-12	95%	1,836	1,568	85%	1,836	1,568	85%	1,836	1,641	89%	1,836	1,658	90%	1,836	1,638	89%	1,836	1,620	88%
Satellite	High	PK, 9-12	95%	1,527	1,513	99%	1,551	1,550	100%	1,551	1,533	99%	1,551	1,470	95%	1,551	1,438	93%	1,551	1,387	89%
Titusville	High	9-12	95%	1,849	1,231	67%	1,849	1,272	69%	1,849	1,295	70%	1,849	1,313	71%	1,849	1,330	72%	1,849	1,270	69%
Viera	High	PK, 9-12	95%	2,203	2,216	101%	2,251	2,233	99%	2,583	2,272	88%	2,583	2,386	92%	2,583	2,411	93%	2,583	2,469	96%
High Totals				**22,627**	**17,878**		**22,699**	**18,126**		**23,031**	**18,630**		**23,031**	**18,930**		**23,031**	**18,953**		**23,031**	**19,066**	
Schools of Choice (Not Concurrency Service Areas)																				
Freedom 7	Elementary	K-6	100%	475	406	85%	475	414	87%	475	414	87%	475	414	87%	475	414	87%	475	414	87%
South Lake	Elementary	K-6	100%	481	398	82%	481	417	87%	481	417	87%	481	417	87%	481	417	87%	481	417	87%
Stevenson	Elementary	K-6	100%	569	498	88%	569	508	89%	569	508	89%	569	508	89%	569	508	89%	569	508	89%
West Melbourne	Elementary	K-6	100%	618	544	88%	618	552	89%	618	552	89%	618	552	89%	618	552	89%	618	552	89%
Edgewood	Jr / Sr High	7-12	90%	1,077	921	86%	1,077	950	88%	1,077	950	88%	1,077	950	88%	1,077	950	88%	1,077	950	88%
West Shore	Jr / Sr High	7-12	90%	1,264	946	75%	1,264	946	75%	1,264	946	75%	1,264	946	75%	1,264	946	75%	1,264	946	75%
Schools of Choice				**4,484**	**3,711**		**4,484**	**3,787**		**4,484**	**3,787**		**4,484**	**3,787**		**4,484**	**3,787**		**4,484**	**3,787**	
Brevard Totals				**85,210**	**63,089**		**85,282**	**63,743**		**85,614**	**64,697**		**85,558**	**65,450**		**85,768**	**65,794**		**85,878**	**66,275**	

Notes

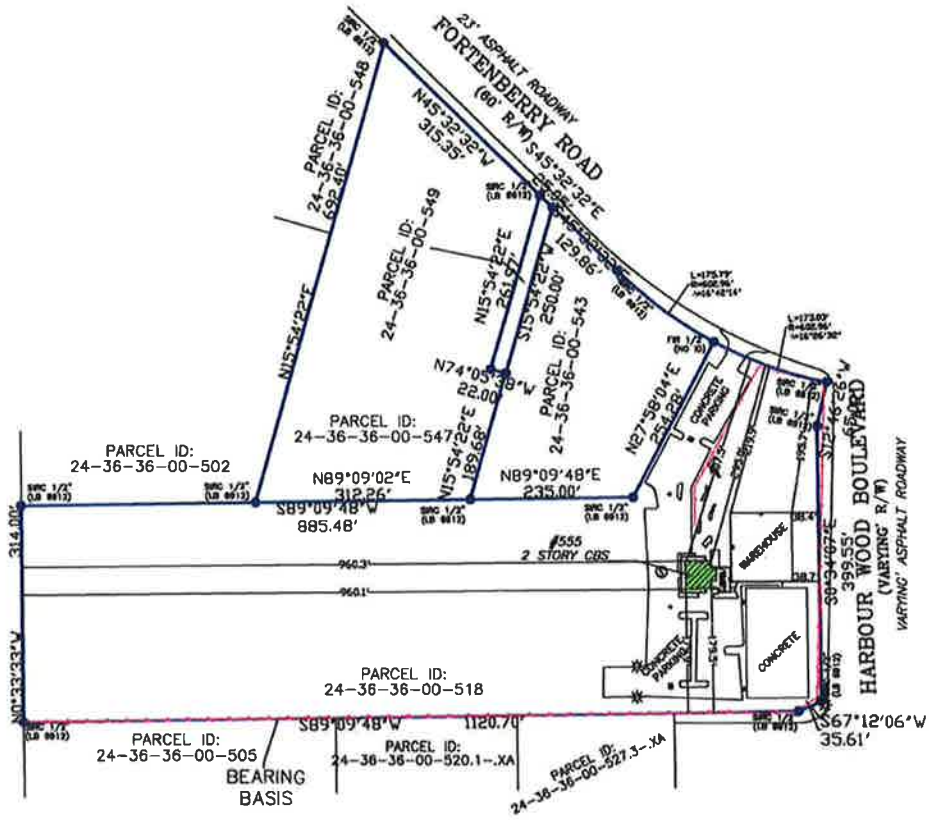
1. FISH Capacity is the sum of the factored permanent capacity and the factored relocatable capacity. Permanent and relocatable capacities for 2021-22 are reported from the FISH database as of October 12, 2021.
2. Student Membership is reported from the Fall Final Membership Count (10/15/2021).
3. Davis Demographics SchoolSite Enrollment Forecasting Extension for ArcGIS estimates future student populations by analyzing the following data:
   - Development Projections from Brevard County Local Government Jurisdictions
   - Brevard County School Concurrency Student Generation Multipliers (SGM)
   - Fall Membership student addresses and corresponding concurrency service areas
   - Student Mobility Rates / Cohort Survival Rates
   - Brevard County Birth rates by zip code
4. Davis Demographics estimates are then adjusted using the following factors:
   - PK (Pre-Kindengarten) and AH (daycare for students with infants) enrollment number are assumed to be constant.
   - Current From/To attendance patterns are assumed to remain constant.
   - Nongeocoded student addresses are assumed to continue in their attendance schools.
   - Charter School Growth.
5. In order to maintain utilization rates lower than the 100% Level of Service, Permanent Capacity and Relocatable Classrooms are assumed to add future student stations as necessary.
6. A total of 15 Relocatable Classrooms are assumed to add future student stations as listed below:
   - Primary relocatable classrooms (Grades K-3) = 18 student stations, Intermediate (Grades 4-8) relocatable classrooms = 22 student stations, and High School (Grades 9-12) relocatable classrooms = 25 student stations
   Intermediate relocatable classrooms are proposed to be added at Roy Allen Elementary, Jupiter Elementary, Sunrise Elementary, and Westside Elementary Schools (Total 12 Classrooms)
   High school relocatable classrooms are proposed to be added at Satellite High and Viera High (Total of 3 Classrooms)
7. A classroom addition is planned for construction at Viera High School for 2023-24. The factored capacity is adjusted for the proposed 350 student stations.

Fortenberry Road Apartments Location Map



Survey
22Z00062
Merritt Project Zenith

MAP OF BOUNDARY SURVEY PREPARED FOR NATIONAL DEVELOPMENT ADVISORS, INC.



SURVEYOR'S LEGEND

LINE TYPES

SYMBOLS

NOTABLE CONDITIONS:
PROPERTY APPEARS TO BE SERVICED BY PUBLIC UTILITIES

NOTES:
ALL BEARINGS AND DISTANCES SHOWN ARE RECORD AND MEASURED UNLESS OTHERWISE SHOWN
P.U.&E. = PUBLIC UTILITY AND PRIVATE DRAINAGE EASEMENT.
P.U.E. = PUBLIC UTILITY EASEMENT
BEARINGS ARE BASED UPON THE RECORD BEARING FOR THE SOUTHERLY PROPERTY LINE
ALL ELEVATIONS SHOWN ARE BASED UPON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD'88)

PROPERTY ADDRESS:

FLOOD INFORMATION:

LEGAL DESCRIPTION:
SEE PAGE 2 FOR LEGAL

SURVEYOR'S NOTES

NORTH ARROW & GRAPHIC SCALE
0' 200'
1" = 200'

JOB NUMBER - 2208-198
LATEST FIELDWORK DATE - 9.13.22
DRAWN BY - T.A.
REVISION - 10.17.22
REVISION -
REVISION -
REVISION -
REVISION -
REVISION -
REVISION -

CERTIFIED TO:
NATIONAL DEVELOPMENT ADVISORS, INC.

SURVEYOR'S CERTIFICATE

10.19.22

BILL H. HYATT
SURVEYOR AND MAPPER LS#4636

KNOW IT NOW, INC.
PROFESSIONAL SURVEYING AND MAPPING
LICENSED BUSINESS #6912
5220 US-1, #104, VERO BEACH, FL 32967
PHONE - (888) 396-7770
WWW.KINSURVEYORS.COM

Traffic Impact Analysis
22Z00062
Project Zenith
Submitted by Applicant 01/02/23

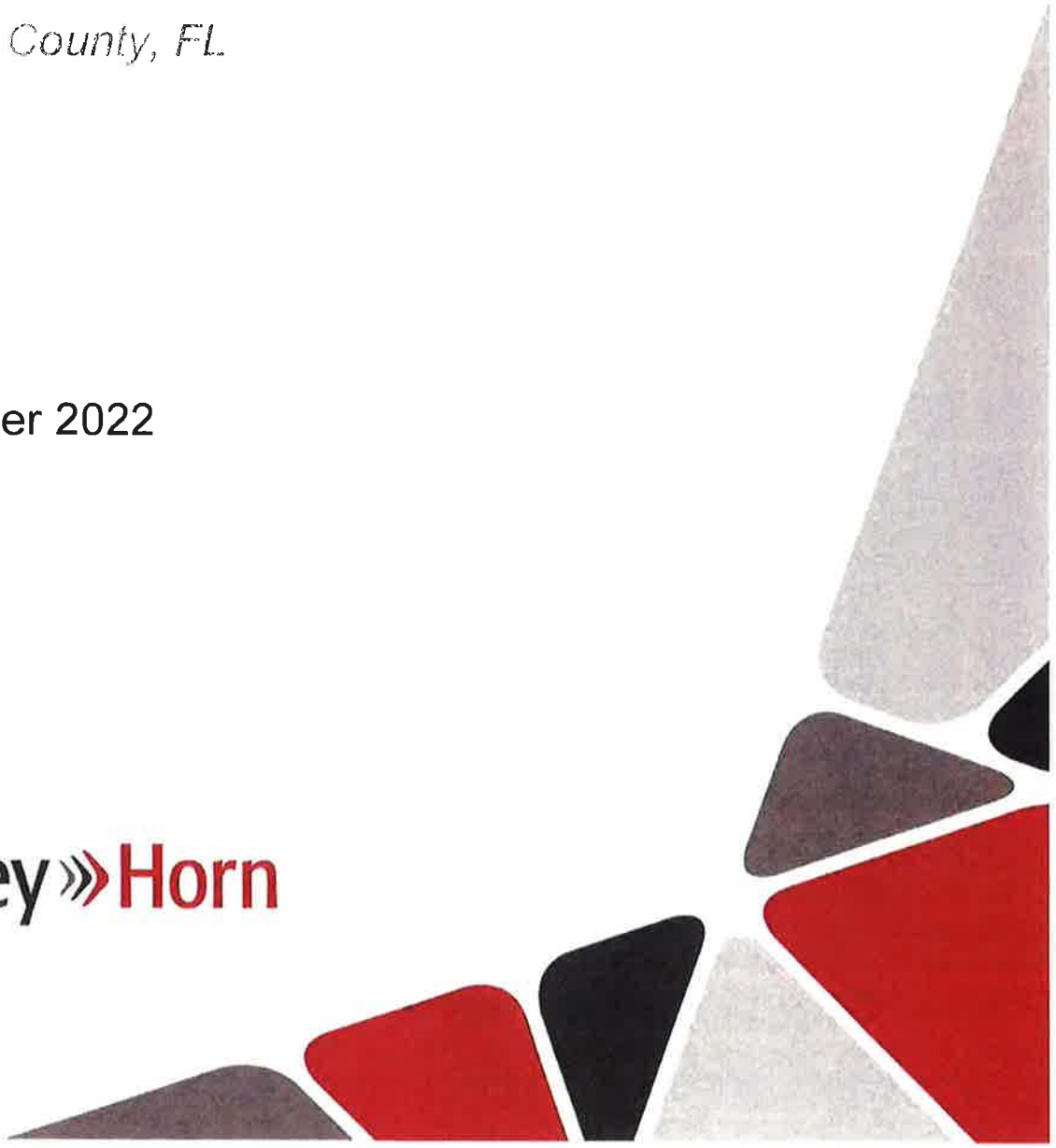
Merritt Island Apartments

Traffic Impact Analysis

Brevard County, FL

December 2022

Kimley»Horn



Kimley»Horn

TRAFFIC IMPACT ANALYSIS

Merritt Island Apartments

Brevard County, FL

Prepared by:

Kimley-Horn and Associates, Inc.

December 2022

©Kimley-Horn and Associates, Inc. 2022
K:\ORL_TPTO\249168001_Merritt Island Apts\02_Documentation\TIA\Merrit Island Apts TIA_12.28.2022.docx

Kimley»Horn

Table of Contents

1.0 INTRODUCTION 1

1.1 Study Area 1

2.0 EXISTING CONDITIONS ANALYSIS 4

2.1 Existing Traffic Counts 4

2.2 Existing Roadway Segment Conditions 4

2.3 Existing Intersection Conditions 7

3.0 DEVELOPMENT TRAFFIC 10

3.1 Trip Generation 10

3.2 Trip Distribution 10

3.3 Trip Assignment 10

4.0 BACKGROUND CONDITIONS ANALYSIS – YEAR 2025 14

4.1 Background Traffic 14

4.2 Background Roadway Segment Analysis 14

4.3 Background Intersection Analysis 17

5.0 BUILDOUT CONDITIONS ANALYSIS – YEAR 2025 21

5.1 Buildout Roadway Segment Analysis 21

5.2 Buildout Intersection Analysis 26

5.3 Buildout Driveway Ingress Turn Lane Analysis 29

6.0 CONCLUSION 30

Figures

Figure 1: Project Location & Study Area 3

Figure 2: Project Trip Distribution 12

Figure 3: Project Trip Assignment 13

Figure 4: AM Peak Hour Buildout Intersection Volumes 22

Figure 5: PM Peak Hour Buildout Intersection Volumes 23

Tables

Table 1: Existing Roadway Segment Analysis (Daily) 5

Table 2: Existing Roadway Segment Analysis (PM Peak Hour) 6

Table 3: Existing Intersection Conditions (AM Peak Hour) 8

Table 4: Existing Intersection Conditions (PM Peak Hour) 9

Table 5: Trip Generation 11

Table 6: Background Roadway Segment Analysis (Daily) 15

Table 7: Background Roadway Segment Analysis (PM Peak Hour) 16

Table 8: Background Intersection Conditions (AM Peak Hour) 18

Table 9: Background Intersection Conditions (PM Peak Hour) 19

Table 10: Background with Improvement Intersection Conditions (PM Peak Hour) 20

Table 11: Buildout Roadway Segment Analysis (Daily) 24

Table 12: Buildout Roadway Segment Analysis (PM Peak Hour) 25

Table 13: Buildout Intersection Conditions (AM Peak Hour) 27

Table 14: Buildout Intersection Conditions (PM Peak Hour) 28

Appendices

Appendix A: Methodology Statement

Appendix B: Concept Site Plan

Appendix C: Turning Movement Counts

Appendix D: FDOT's Florida Traffic Online (FTO) Data

Appendix E: Turning Movement Volume Worksheets

Appendix F: Space Coast TPO Traffic Counts

Appendix G: Synchro Outputs

Appendix H: ITE Excerpts

Appendix I: CFRPM Model Plot

Appendix J: NCHRP Turn Lane Warrant Worksheets

1.0 INTRODUCTION

Kimley-Horn has been retained to analyze and document the traffic impacts associated with the development of the Merritt Island Apartments. The proposed development is located on the south side of Fortenberry Road, west of Harbor Woods Boulevard, and north of Lands Way in Brevard County.

A portion of the project property is undeveloped, and the eastern part is an abandoned active recreation facility. The proposed Merritt Island Apartments development on the 15.26-acre property consists of ±370 multifamily dwelling units. Buildout of the proposed development is anticipated in 2025. The Methodology Statement approved by County Staff was used to guide this transportation analysis and is provided in **Appendix A.**

Access to the site will be provided via one (1) full access driveway on Fortenberry Road one (1) full access driveway on Harbor Woods Boulevard. The access points are shown in the conceptual site plan provided in **Appendix B**.

1.1 STUDY AREA

The study area, determined using the Brevard County *Guidelines on Minimum Requirements for Traffic Impact Analyses* (2022), was discussed and approved as part of the Traffic Impact Analysis Methodology (**Appendix A**). The agreed-upon study area roadway segments and intersections are listed below and displayed on **Figure 1**.

Study Area Roadway Segments

- Fortenberry Rd from S Courtenay Pkwy to S Plumosa St
- Fortenberry Rd from S Plumosa St to S Skyes Creek Pkwy
- Cone Rd from S Tropical Trl to S Courtenay Pkwy
- Cone Rd from S Courtenay Pkwy to S Plumosa St
- N Plumosa St from Merritt Ave to SR 520
- S Plumosa St from SR 520 to Fortenberry Rd
- S Plumosa St from Fortenberry Rd to Cone Rd
- SR 520 from Hubert Humphrey Bridge to Tropical Trl
- SR 520 from Tropical Trl to Courtenay Pkwy
- SR 520 from Courtenay Pkwy to Plaza Entry
- SR 520 from Plaza Entry to Plumosa St
- SR 520 from Plumosa St to Merritt Sq (Mall Entry)
- SR 520 from Merritt Sq (Mall Entry) to Skyes Creek Pkwy
- SR 520 from Skyes Creek Pkwy to Newfound Harbor Dr
- N Skyes Creek Pkwy from N Banana River Dr to Merritt Ave
- N Skyes Creek Pkwy from Merritt Ave to SR 520
- S Skyes Creek Pkwy from SR 520 to Fortenberry Rd
- Merritt Ave from N Courtenay Pkwy to N Plumosa St
- N Courtenay Pkwy from Needle Blvd to Merritt Ave
- N Courtenay Pkwy from Merritt Ave to SR 520
- S Courtenay Pkwy from SR 520 to Magnolia Ave
- S Courtenay Pkwy from Magnolia Ave to Fortenberry Rd
- S Courtenay Pkwy from Cone Rd to Banana Blvd
- N Tropical Trl from Merritt Ave to SR 520

- S Tropical Trl from Cone Rd to Plantation Rd

Study Area Intersections

- SR 520 & Courtenay Parkway
- SR 520 & Plumosa Street
- SR 520 & Skyes Creek Parkway
- S Courtenay Parkway & Fortenberry Road
- S Plumosa Parkway & Fortenberry Road
- Project Driveway & Fortenberry Road
- Harbor Woods Boulevard/Project Driveway & Fortenberry Road

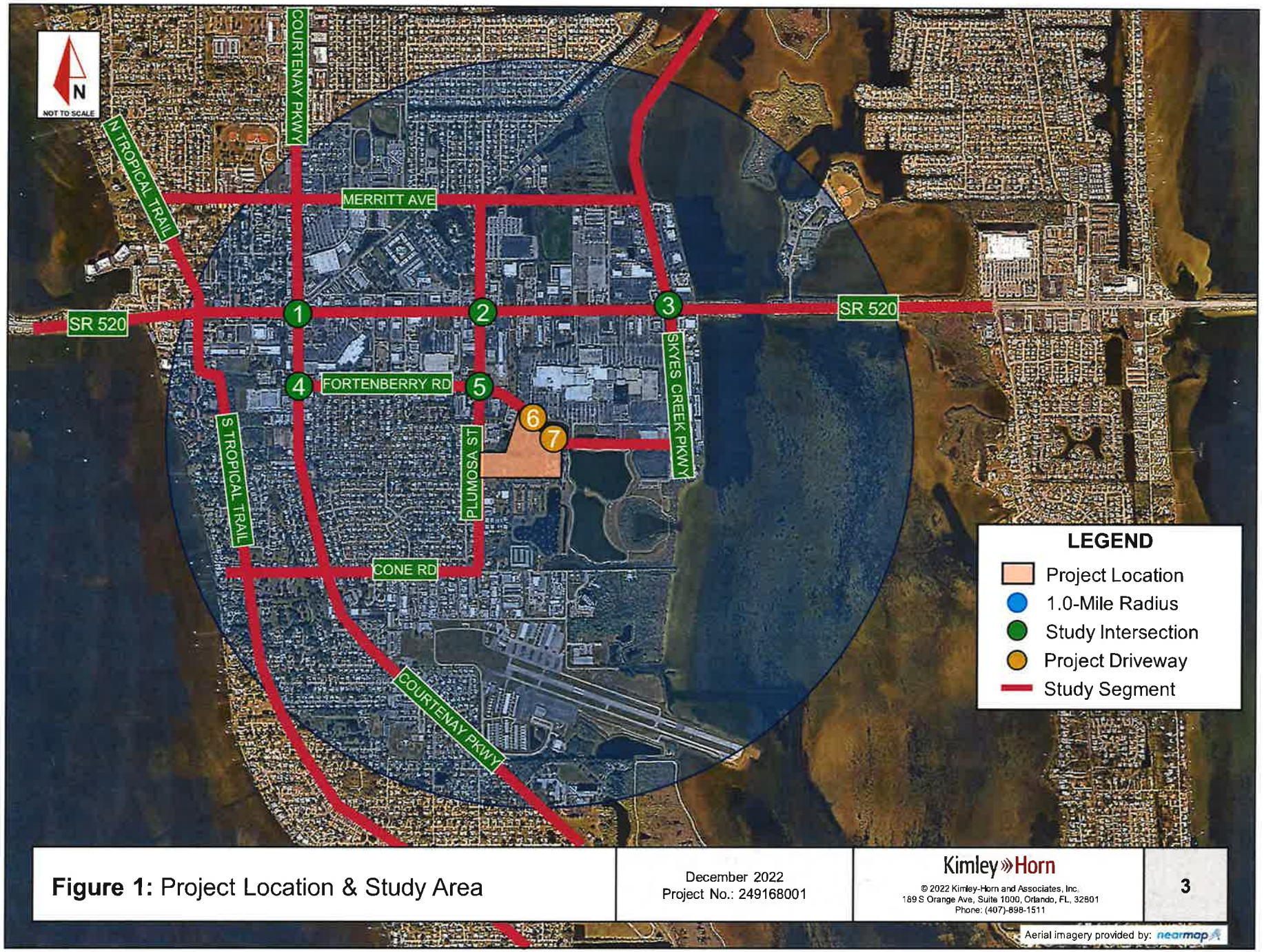


Figure 1: Project Location & Study Area

December 2022
Project No.: 249168001

Kimley»Horn

© 2022 Kimley-Horn and Associates, Inc.
189 S Orange Ave, Suite 1000, Orlando, FL, 32801
Phone: (407)-898-1511

3

Aerial imagery provided by: nearmap

2.0 EXISTING CONDITIONS ANALYSIS

2.1 EXISTING TRAFFIC COUNTS

Turning movement counts (TMCs) were collected at the study intersections on Tuesday, October 18, 2022, and are provided in **Appendix C.** Data was collected during the AM Peak Period (7:00 AM to 9:00 AM) and PM Peak Period (4:00 PM to 6:00 PM) at the study area intersections.

Turning movement volumes were adjusted by a seasonal factor (SF) based on data from FDOT's Florida Traffic Online (FTO) database, as shown in **Appendix D**. Turning movement volume worksheets for all intersections can be found in **Appendix E.**

2.2 EXISTING ROADWAY SEGMENT CONDITIONS

A roadway segment analysis was performed within the study area to determine existing Daily and PM peak hour conditions. The Daily analysis was conducted by comparing the 2022 Average Annual Daily Traffic (AADT) segment volumes to the TPO's Daily Maximum Service Volumes (MSV) corresponding to the adopted Level of Service (LOS) standard for each roadway segment. 2021 AADTs were obtained from the latest Space Coast Transportation Planning Organization (TPO) Traffic Count publication and grown to existing year 2022 using a 2% annual growth rate, as agreed upon in the TIA Methodology. The Space Coast TPO Traffic Count publication is provided in **Appendix F**.

Additionally, a PM peak hour roadway segment analysis was conducted by comparing peak hour two-way volumes to the peak hour two-way MSV corresponding to the adopted Level of Service (LOS) standard for each roadway segment. Existing peak hour two-way roadway segment volumes are from the Space Coast TPO's most recent data collection. The FDOT Q/LOS Handbook was used to supplement the determination of each segment's peak hour two-way volume.

The existing roadway segment data is included in **Tables 1 and 2** for Daily and PM peak hour conditions, respectively. As shown in the tables, the analysis identifies no roadway segment capacity deficiencies within the study area under existing Daily and PM peak hour conditions.

Table 1: Existing Roadway Segment Analysis (Daily)

Roadway Link ID	From	To	Roadway Attributes: Functional Classification [1]	Number of Lanes	Speed Limit	Adopted LOS[1]	Daily MSV[1]	Daily - Existing (2022): 2021 AADT[1]	Growth Rate	Existing 2022 AADT[2]	V/C Ratio	Existing Deficiency?
Fortenberry Rd												
119	Courtenay Pkwy	Plumosa St	Urban Major Collector	2	35	E	15,600	3,900	2%	3,978	0.26	No
154	Plumosa St	Skyes Creek Pkwy	Urban Major Collector	2	35	E	15,600	3,900	2%	3,978	0.26	No
Cone Rd												
117	Tropical Trl	Courtenay Pkwy	Urban Minor Collector	2	35	E	15,600	4,200	2%	4,284	0.27	No
115	Courtenay Pkwy	Plumosa St	Urban Minor Collector	2	35	D	15,600	4,800	2%	4,896	0.31	No
S Plumosa St												
106	Merritt Ave	SR 520	Urban Minor Collector	2	25	E	15,600	5,260	2%	5,365	0.34	No
120	SR 520	Fortenberry Rd	Urban Minor Collector	2	25	E	15,600	4,160	2%	4,243	0.27	No
116	Fortenberry Rd	Cone Rd	Urban Minor Collector	2	35	E	15,600	4,820	2%	4,916	0.32	No
SR 520												
101	Bridge	Tropical Trl	Urban Principal Arterial - Other	6	45	D	59,900	44,030	2%	44,911	0.75	No
148	Tropical Trl	Courtenay Pkwy	Urban Principal Arterial - Other	6	45	D	59,900	37,330	2%	38,077	0.64	No
97	Courtenay Pkwy	Plaza Ent	Urban Principal Arterial - Other	6	45	D	62,900	30,030	2%	30,631	0.49	No
98	Plaza Ent	Plumosa St	Urban Principal Arterial - Other	6	45	D	62,900	29,680	2%	30,274	0.48	No
99	Plumosa St	Mall Ent	Urban Principal Arterial - Other	6	45	D	62,900	28,180	2%	28,744	0.46	No
100	Mall Ent	Skyes Creek Pkwy	Urban Principal Arterial - Other	6	45	D	62,900	23,830	2%	24,307	0.39	No
149	Skyes Creek Pkwy	Newbound Harbor Dr	Urban Principal Arterial - Other	6	45	D	62,900	28,480	2%	29,050	0.46	No
Skyes Creek Pkwy												
108	N Banana River Dr	Merritt Ave	Urban Major Collector	2	45	D	17,700	9,680	2%	9,874	0.56	No
121	Merritt Ave	SR 520	Urban Major Collector	4	45	D	39,800	10,770	2%	10,985	0.28	No
123	SR 520	Fortenberry Rd	Urban Major Collector	4	35	E	33,800	4,050	2%	4,131	0.12	No
Merritt Ave												
103	Courtenay Pkwy	Plumosa St	Urban Major Collector	4	35	E	33,800	12,780	2%	13,036	0.39	No
Courtenay Pkwy												
131	Needle Blvd	Merritt Ave	Urban Principal Arterial - Other	4	40	D	41,790	32,130	2%	32,773	0.78	No
130	Merritt Ave	SR 520	Urban Principal Arterial - Other	4	40	D	41,790	26,150	2%	26,673	0.64	No
139	SR 520	Magnolia Ave	Urban Minor Arterial	4	35	E	33,800	17,860	2%	18,217	0.54	No
122	Magnolia Ave	Fortenberry Rd	Urban Minor Arterial	4	35	E	33,800	16,840	2%	17,177	0.51	No
114	Cone Rd	Banana Blvd	Urban Minor Arterial	2	35	E	15,600	10,970	2%	11,189	0.72	No
Tropical Trl												
147	Merritt Ave	SR 520	Urban Major Collector	2	25	E	15,600	8,100	2%	8,262	0.53	No
126	Cone Rd	Plantation Rd	Urban Major Collector	2	35	E	12,480	6,730	2%	6,865	0.55	No

Notes

1. Data obtained from Space Coast TPO 2020 Functional Classification, MAV, and LOS Table.

2. Existing (2022) AADT developed by applying the calculated growth rates.

Table 2: Existing Roadway Segment Analysis (PM Peak Hour)

Roadway			Roadway Attributes [1]					Peak Hour - Existing (2022)		
Link ID	From	To	Functional Classification	Number of Lanes	Speed Limit	Adopted LOS [1]	Peak Hour Two-Way MSV [1]	2022 Peak Hour Two-Way Volume [2]	V/C Ratio	Existing Deficiency?
Fortenberry Rd										
119	Courtenay Pkwy	Plumosa St	Urban Major Collector	2	35	E	1,410	399	0.29	No
154	Plumosa St	Skyes Creek Pkwy	Urban Major Collector	2	35	E	1,410	508	0.37	No
Cone Rd										
117	Tropical Trl	Courtenay Pkwy	Urban Minor Collector	2	35	E	1,410	431	0.31	No
115	Courtenay Pkwy	Plumosa St	Urban Minor Collector	2	35	E	1,410	550	0.4	No
Plumosa St										
106	Merritt Ave	SR 520	Urban Minor Collector	2	25	E	1,410	544	0.39	No
120	SR 520	Fortenberry Rd	Urban Minor Collector	2	25	E	1,410	419	0.3	No
116	Fortenberry Rd	Cone Rd	Urban Minor Collector	2	35	E	1,410	487	0.35	No
SR 520										
101	Bridge	Tropical Trl	Urban Principal Arterial - Other	6	45	D	5,390	3,900	0.74	No
148	Tropical Trl	Courtenay Pkwy	Urban Principal Arterial - Other	6	45	D	5,390	3,117	0.59	No
97	Courtenay Pkwy	Plaza Ent	Urban Principal Arterial - Other	6	45	D	5,660	2,681	0.48	No
98	Plaza Ent	Plumosa St	Urban Principal Arterial - Other	6	45	D	5,660	2,619	0.47	No
99	Plumosa St	Mall Ent	Urban Principal Arterial - Other	6	45	D	5,660	2,521	0.45	No
100	Mall Ent	Skyes Creek Pkwy	Urban Principal Arterial - Other	6	45	D	5,660	1,914	0.34	No
149	Skyes Creek Pkwy	Newbound Harbor Dr	Urban Principal Arterial - Other	6	45	D	5,660	2,643	0.48	No
Skyes Creek Pkwy										
108	N Banana River Dr	Merritt Ave	Urban Major Collector	2	45	D	1,600	955	0.61	No
121	Merritt Ave	SR 520	Urban Major Collector	4	45	D	3,580	949	0.27	No
123	SR 520	Fortenberry Rd	Urban Major Collector	4	35	E	3,040	432	0.15	No
Merritt Ave										
103	Courtenay Pkwy	Plumosa St	Urban Major Collector	4	35	E	3,040	1,255	0.42	No
Courtenay Pkwy										
131	Needle Blvd	Merritt Ave	Urban Principal Arterial - Other	4	40	D	3,760	2,519	0.68	No
130	Merritt Ave	SR 520	Urban Principal Arterial - Other	4	40	D	3,760	2,193	0.59	No
139	SR 520	Magnolia Ave	Urban Minor Arterial	4	35	E	3,040	1,603	0.54	No
122	Magnolia Ave	Fortenberry Rd	Urban Minor Arterial	4	35	E	3,040	1,330	0.45	No
114	Cone Rd	Banana Blvd	Urban Minor Arterial	2	35	E	1,410	1,116	0.81	No
Tropical Trl										
147	Merritt Ave	SR 520	Urban Major Collector	2	25	E	1,410	792	0.57	No
126	Cone Rd	Plantation Rd	Urban Major Collector	2	35	E	1,130	691	0.62	No

Notes

1. Data obtained from Space Coast TPO 2020 Functional Classification, MAV, and LOS Table and 2020 FDOT Q/LOS Table

2. Data obtained from Space Coast TPO Transportation Data Management System.

2.3 EXISTING INTERSECTION CONDITIONS

An intersection operational analysis was performed for existing conditions during the AM and PM peak hours using procedures outlined in the *Highway Capacity Manual, 6th Edition* with Synchro (v11) software. Intersection level of service (LOS) and maximum volume to capacity (v/c) ratios for the AM and PM peak hour existing conditions are provided in **Tables 3 and 4**. Synchro outputs are provided in **Appendix G**.

As shown in the tables below, all study area intersections currently operate with acceptable overall LOS and with v/c ratios less than one (1.0) under existing (2022) AM and PM peak hour conditions except for the following:

- SR 520 & Courtenay Parkway
  - Northbound Approach – LOS F – AM and PM Peak Hour
- SR 520 & Plumosa Street
  - Northbound Approach – LOS F – PM Peak Hour
  - Southbound Approach – LOS F – AM and PM Peak Hour
- SR 520 & Skyes Creek Parkway
  - Northbound Approach – LOS F – AM and PM Peak Hour
  - Northbound Right Movement – v/c > 1 – PM Peak Hour
- Courtenay Parkway & Fortenberry Road
  - Eastbound Left/Through Movement – v/c > 1 – PM Peak Hour

Table 3: Existing Intersection Conditions (AM Peak Hour)

Existing Condition - 2022						
Intersection		Control Type	Approach	AM Peak Hour		
				Max Level of Service	Max V/C Ratio	Max V/C Movement
1	SR 520 & Courtenay Pkwy	Signalized	EB	D	0.89	EBL
			WB	D	0.72	WBL
			NB	F	0.92	NBT/R
			SB	E	0.84	SBL
			Overall	**E (60.2 s)**	**0.92**	**NBT/R**
2	SR 520 & Plumosa St	Signalized	EB	D	0.80	EBL
			WB	A	0.79	WBL
			NB	E	0.78	NBL
			SB	F	0.85	SBT/R
			Overall	**C (31.1 s)**	**0.85**	**SBT/R**
3	SR 520 & Skyes Creek Pkwy	Signalized	EB	B	0.75	EBL
			WB	C	0.55	WBL
			NB	F	0.85	NBR
			SB	E	0.85	SBL
			Overall	**C (30.3 s)**	**0.85**	**NBR**
4	Courtenay Pkwy & Fortenberry Rd	Signalized	EB	D	0.03	EBL/T/R
			WB	C	0.37	WBL/T
			NB	B	0.36	NBT
			SB	A	0.27	SBT/R
			Overall	**B (10.7 s)**	**0.37**	**WBL/T**
5	Fortenberry Rd & Plumosa St	Signalized	EB	C	0.52	EBT/R
			WB	C	0.26	WBL
			NB	B	0.16	NBT
			SB	B	0.23	SBT/R
			Overall	**B (16.5 s)**	**0.52**	**EBT/R**

Table 4: Existing Intersection Conditions (PM Peak Hour)

Existing Condition - 2022						
Intersection		Control Type	Approach	PM Peak Hour		
				Max Level of Service	Max V/C Ratio	Max V/C Movement
1	SR 520 & Courtenay Pkwy	Signalized	EB	D	0.90	EBL
			WB	E	0.75	WBL
			NB	F	0.90	NBL
			SB	E	0.92	SBR
			Overall	**E (67.2 s)**	**0.92**	**SBR**
2	SR 520 & Plumosa St	Signalized	EB	D	0.84	EBL
			WB	A	0.82	WBL
			NB	F	0.84	NBT/R
			SB	F	0.89	SBT/R
			Overall	**D (35.1 s)**	**0.89**	**SBT/R**
3	SR 520 & Skyes Creek Pkwy	Signalized	EB	B	0.83	EBL
			WB	C	0.76	WBL
			NB	F	1.11	NBR
			SB	E	0.85	SBL
			Overall	**D (41.6 s)**	**1.11**	**NBR**
4	Courtenay Pkwy & Fortenberry Rd	Signalized	EB	D	0.00	EBL/T/R
			WB	E	1.01	WBL/T
			NB	B	0.47	NBT
			SB	A	0.39	SBT/R
			Overall	**B (19.5 s)**	**1.01**	**WBL/T**
5	Fortenberry Rd & Plumosa St	Signalized	EB	D	0.63	EBT/R
			WB	B	0.34	WBL
			NB	B	0.24	NBT
			SB	B	0.22	SBT/R
			Overall	**B (19.3 s)**	**0.63**	**EBT/R**

3.0 DEVELOPMENT TRAFFIC

The Merritt Island Apartment development is proposed to consist of ±370 multifamily dwelling units. Buildout of the proposed development is anticipated in 2025. The latest industry standards were referenced to evaluate the amount of new external trips to be generated by the site at buildout. The adopted regional travel demand model was used to forecast the distribution of trips throughout the study area.

3.1 TRIP GENERATION

Trip generation for the proposed project was calculated per procedures published in the 11th Edition of the Institute of Transportation Engineers' (ITE) *Trip Generation Manual*. Land Use Code (LUC) 221 – Multifamily Housing (Mid-Rise) was used for the proposed development.

Relevant excerpts from the *Trip Generation Manual* are included in **Appendix H.**

Table 5 provides the Daily, AM peak hour, and PM peak hour trip generation summary for the project. The proposed site is anticipated to generate 1,718 daily trips, 151 AM peak hour trips (35 inbound and 116 outbound), and 145 PM peak hour trips (88 inbound and 57 outbound).

3.2 TRIP DISTRIBUTION

Projected traffic demand of project trips on study roadways was derived with use of the most recent adopted regional travel demand model. Land use data for the project was entered into a new traffic analysis zone (TAZ) within the latest Central Florida Regional Planning Model set and situated within the existing roadway network to appropriately represent project access. The model was used to assign trips for all trip purposes between allocated origin and destination pairs using project build-out year model data. Trip distribution for the project was extracted from the completed model assignment and reviewed for logic. The resulting model plot showing the percent of daily project distribution is provided in **Appendix I**.

Daily model project distribution was referenced to manually assign project distribution at the study area intersections and driveways in general accordance with the model output. **Figure 2** shows the intersection movement project distribution within the study area for use in forecasting project trips.

3.3 TRIP ASSIGNMENT

The project trip distribution percentages were used to assign anticipated project trips to the study area roadways and intersections. **Figure 3** shows the anticipated project trip assignment at the study area intersections during the AM and PM peak hours.

Table 5: Trip Generation

	Land Use	ITE LUC[1]	Size	Units	Trip Generation Equation	Daily				
						Total	In[1]		Out[1]	
Daily	Multifamily Housing (Mid-Rise)	221	**370**	DU	T = 4.77 * X - 46.46	1,718	50%	859	50%	859
	Total Generated Trips					**1,718**	**859**		**859**	
	Land Use	**ITE LUC[1]**	**Size**	**Units**	**Trip Generation Equation**	**AM Peak Hour**				
						Total	**In[1]**		**Out[1]**	
AM Peak Hour	Multifamily Housing (Mid-Rise)	221	**370**	DU	T = 0.44 * X - 11.61	151	23%	35	77%	116
	Total Generated Trips					**151**	**35**		**116**	
	Land Use	**ITE LUC[1]**	**Size**	**Units**	**Trip Generation Equation**	**PM Peak Hour**				
						Total	**In[1]**		**Out[1]**	
PM Peak Hour	Multifamily Housing (Mid-Rise)	221	**370**	DU	T = 0.39 * X + 0.34	145	61%	88	39%	57
	Total Generated Trips					**145**	**88**		**57**	

Note: [1] Vehicle trip rate and directional splits per ITE Trip Generation, 11th Edition

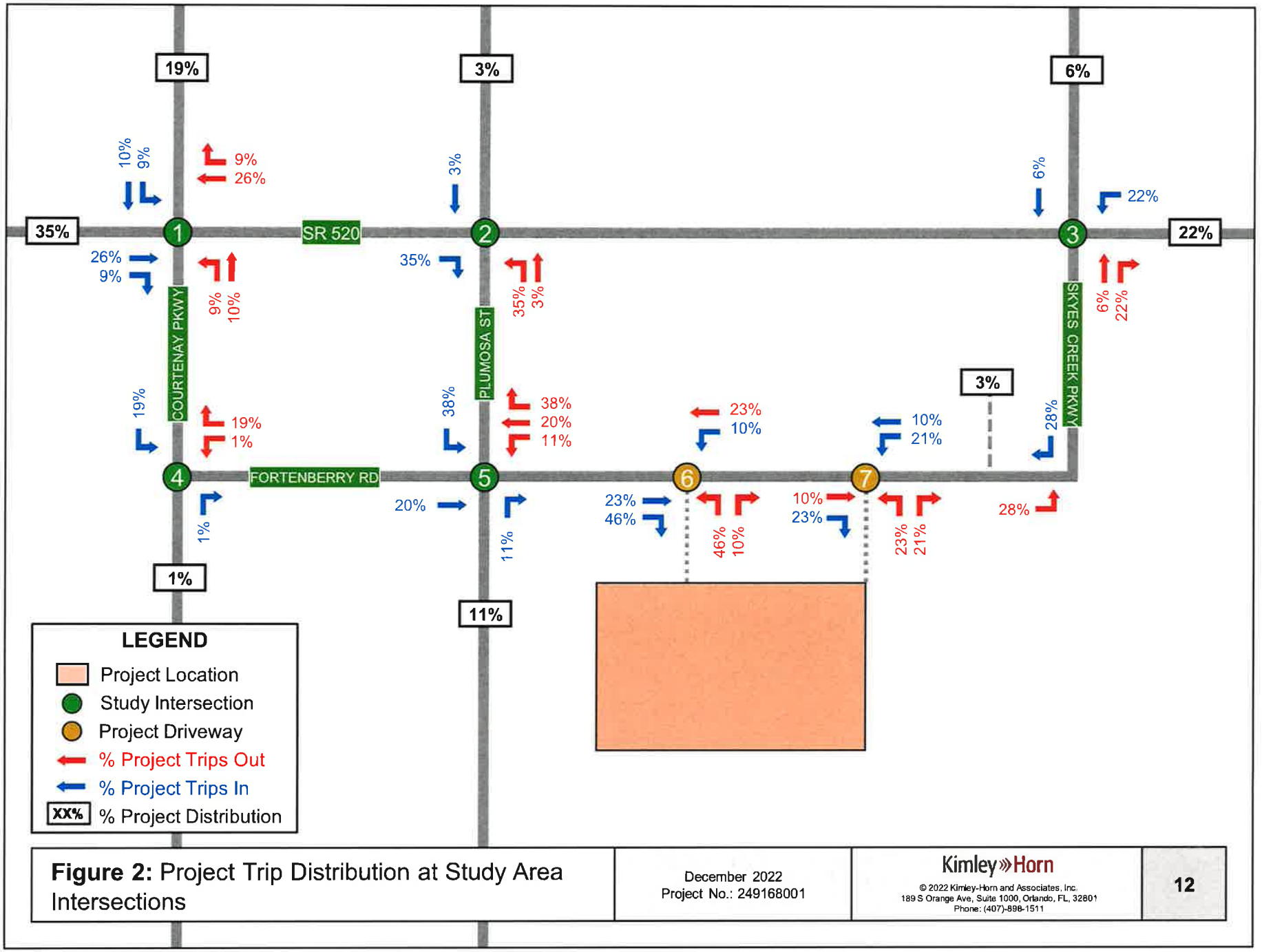


Figure 2: Project Trip Distribution at Study Area Intersections

December 2022
Project No.: 249168001

Kimley»Horn

© 2022 Kimley-Horn and Associates, Inc.
189 S Orange Ave, Suite 1000, Orlando, FL, 32801
Phone: (407)-898-1511

12

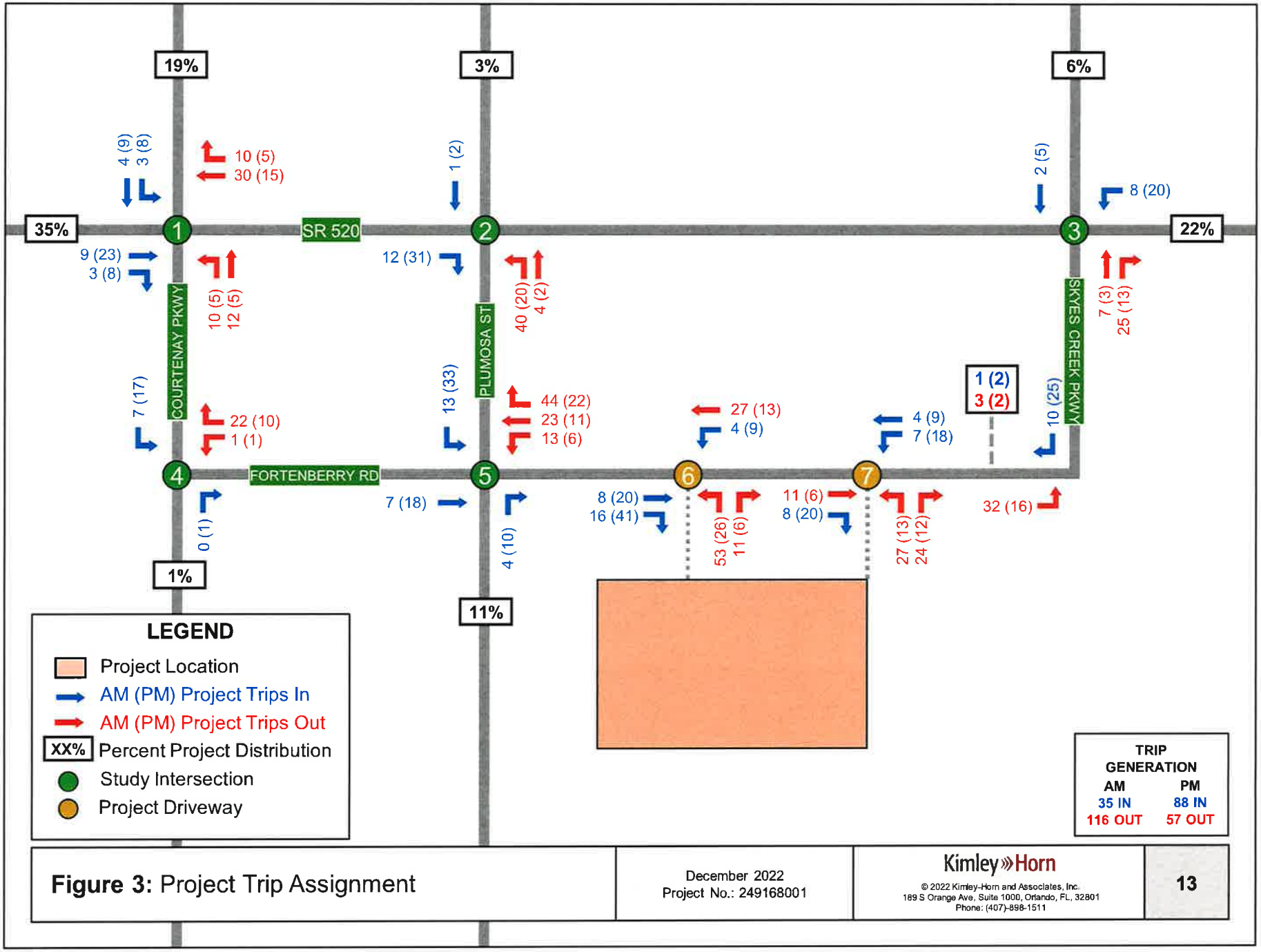


Figure 3: Project Trip Assignment

December 2022
Project No.: 249168001

Kimley»Horn

© 2022 Kimley-Horn and Associates, Inc.
189 S Orange Ave, Suite 1000, Orlando, FL, 32801
Phone: (407)-898-1511

13

4.0 BACKGROUND CONDITIONS ANALYSIS – YEAR 2025

4.1 BACKGROUND TRAFFIC

Traffic conditions were evaluated for year 2025 background conditions, without the impact of project trips on the roadway network. Per the approved TIA Methodology background volumes on study area roadway segments and intersections were derived by applying a 2% annual growth rate to existing traffic counts. Adjusted turning movement volume worksheets for all intersections can be found in **Appendix E.**

4.2 BACKGROUND ROADWAY SEGMENT ANALYSIS

A roadway segment analysis was performed within the study area to determine background Daily and PM peak hour conditions. The analysis was conducted by comparing the projected 2025 Background AADT and PM peak hour two-way segment volumes to the segment's Maximum Service Volumes (MSV).

The background roadway segment data is included in **Tables 6 and 7** for Daily and PM peak hour conditions, respectively. As shown in the tables, the analysis identifies no capacity deficiencies under background (2025) conditions.

Table 6: Background Roadway Segment Analysis (Daily)

Roadway			Roadway Attributes [1]					Daily - Background (2025)				
Link ID	From	To	Functional Classification [1]	Number of Lanes	Speed Limit	Adopted LOS [1]	Daily MSV [1]	Existing 2022 AADT	Growth Rate	2025 AADT[2]	V/C Ratio	Background Deficiency?
Fortenberry Rd												
119	Courtenay Pkwy	Plumosa St	Urban Major Collector	2	35	E	15,600	3,978	2%	4,221	0.27	No
154	Plumosa St	Skyes Creek Pkwy	Urban Major Collector	2	35	E	15,600	3,978	2%	4,221	0.27	No
Cone Rd												
117	Tropical Trl	Courtenay Pkwy	Urban Minor Collector	2	35	E	15,600	4,284	2%	4,546	0.29	No
115	Courtenay Pkwy	Plumosa St	Urban Minor Collector	2	35	D	15,600	4,896	2%	5,196	0.33	No
S Plumosa St												
106	Merritt Ave	SR 520	Urban Minor Collector	2	25	E	15,600	5,365	2%	5,694	0.36	No
120	SR 520	Fortenberry Rd	Urban Minor Collector	2	25	E	15,600	4,243	2%	4,503	0.29	No
116	Fortenberry Rd	Cone Rd	Urban Minor Collector	2	35	E	15,600	4,916	2%	5,217	0.33	No
SR 520												
101	Bridge	Tropical Trl	Urban Principal Arterial - Other	6	45	D	59,900	44,911	2%	47,659	0.80	No
148	Tropical Trl	Courtenay Pkwy	Urban Principal Arterial - Other	6	45	D	59,900	38,077	2%	40,407	0.67	No
97	Courtenay Pkwy	Plaza Ent	Urban Principal Arterial - Other	6	45	D	62,900	30,631	2%	32,505	0.52	No
98	Plaza Ent	Plumosa St	Urban Principal Arterial - Other	6	45	D	62,900	30,274	2%	32,127	0.51	No
99	Plumosa St	Mall Ent	Urban Principal Arterial - Other	6	45	D	62,900	28,744	2%	30,503	0.48	No
100	Mall Ent	Skyes Creek Pkwy	Urban Principal Arterial - Other	6	45	D	62,900	24,307	2%	25,794	0.41	No
149	Skyes Creek Pkwy	Newbound Harbor D	Urban Principal Arterial - Other	6	45	D	62,900	29,050	2%	30,828	0.49	No
Skyes Creek Pkwy												
108	N Banana River Dr	Merritt Ave	Urban Major Collector	2	45	D	17,700	9,874	2%	10,478	0.59	No
121	Merritt Ave	SR 520	Urban Major Collector	4	45	D	39,800	10,985	2%	11,658	0.29	No
123	SR 520	Fortenberry Rd	Urban Major Collector	4	35	E	33,800	4,131	2%	4,384	0.13	No
Merritt Ave												
103	Courtenay Pkwy	Plumosa St	Urban Major Collector	4	35	E	33,800	13,036	2%	13,833	0.41	No
Courtenay Pkwy												
131	Needle Blvd	Merritt Ave	Urban Principal Arterial - Other	4	40	D	41,790	32,773	2%	34,779	0.83	No
130	Merritt Ave	SR 520	Urban Principal Arterial - Other	4	40	D	41,790	26,673	2%	28,306	0.68	No
139	SR 520	Magnolia Ave	Urban Minor Arterial	4	35	E	33,800	18,217	2%	19,332	0.57	No
122	Magnolia Ave	Fortenberry Rd	Urban Minor Arterial	4	35	E	33,800	17,177	2%	18,228	0.54	No
114	Cone Rd	Banana Blvd	Urban Minor Arterial	2	35	E	15,600	11,189	2%	11,874	0.76	No
Tropical Trl												
147	Merritt Ave	SR 520	Urban Major Collector	2	25	E	15,600	8,262	2%	8,768	0.56	No
126	Cone Rd	Plantation Rd	Urban Major Collector	2	35	E	12,480	6,865	2%	7,285	0.58	No

Notes

1. Data obtained from Space Coast TPO 2020 Functional Classification, MAV, and LOS Table.

2. Background (2025) AADT developed by applying the calculated growth rates.

Table 7: Background Roadway Segment Analysis (PM Peak Hour)

Roadway			Roadway Attributes					Peak Hour - Background (2025)				
Link ID	From	To	Functional Classification	Number of Lanes	Speed Limit	Adopted LOS[1]	Peak Hour Two-Way MSV[1]	Existing 2022 Peak Hour Two-Way Volume	Growth Rate	Background 2025 Peak Hour Two-Way Volume[2]	V/C Ratio	Background Deficiency?
Fortenberry Rd												
119	Courtenay Pkwy	Plumosa St	Urban Major Collector	2	35	E	1,410	399	2%	423	0.30	No
154	Plumosa St	Skyes Creek Pkwy	Urban Major Collector	2	35	E	1,410	508	2%	539	0.38	No
Cone Rd												
117	Tropical Trl	Courtenay Pkwy	Urban Minor Collector	2	35	E	1,410	431	2%	457	0.32	No
115	Courtenay Pkwy	Plumosa St	Urban Minor Collector	2	35	E	1,410	550	2%	584	0.41	No
Plumosa St												
106	Merritt Ave	SR 520	Urban Minor Collector	2	25	E	1,410	544	2%	577	0.41	No
120	SR 520	Fortenberry Rd	Urban Minor Collector	2	25	E	1,410	419	2%	445	0.32	No
116	Fortenberry Rd	Cone Rd	Urban Minor Collector	2	35	E	1,410	487	2%	517	0.37	No
SR 520												
101	Bridge	Tropical Trl	Urban Principal Arterial - Other	6	45	D	5,390	3,900	2%	4,139	0.77	No
148	Tropical Trl	Courtenay Pkwy	Urban Principal Arterial - Other	6	45	D	5,390	3,117	2%	3,308	0.61	No
97	Courtenay Pkwy	Plaza Ent	Urban Principal Arterial - Other	6	45	D	5,660	2,681	2%	2,845	0.50	No
98	Plaza Ent	Plumosa St	Urban Principal Arterial - Other	6	45	D	5,660	2,619	2%	2,779	0.49	No
99	Plumosa St	Mall Ent	Urban Principal Arterial - Other	6	45	D	5,660	2,521	2%	2,675	0.47	No
100	Mall Ent	Skyes Creek Pkwy	Urban Principal Arterial - Other	6	45	D	5,660	1,914	2%	2,031	0.36	No
149	Skyes Creek Pkwy	Newbound Harbor Dr	Urban Principal Arterial - Other	6	45	D	5,660	2,643	2%	2,805	0.50	No
Skyes Creek Pkwy												
108	N Banana River Dr	Merritt Ave	Urban Major Collector	2	45	D	1,600	955	2%	1,013	0.63	No
121	Merritt Ave	SR 520	Urban Major Collector	4	45	D	3,580	949	2%	1,007	0.28	No
123	SR 520	Fortenberry Rd	Urban Major Collector	4	35	E	3,040	432	2%	458	0.15	No
Merritt Ave												
103	Courtenay Pkwy	Plumosa St	Urban Major Collector	4	35	E	3,040	1,255	2%	1,332	0.44	No
Courtenay Pkwy												
131	Needle Blvd	Merritt Ave	Urban Principal Arterial - Other	4	40	D	3,760	2,519	2%	2,673	0.71	No
130	Merritt Ave	SR 520	Urban Principal Arterial - Other	4	40	D	3,760	2,193	2%	2,327	0.62	No
139	SR 520	Magnolia Ave	Urban Minor Arterial	4	35	E	3,040	1,603	2%	1,701	0.56	No
122	Magnolia Ave	Fortenberry Rd	Urban Minor Arterial	4	35	E	3,040	1,330	2%	1,411	0.46	No
114	Cone Rd	Banana Blvd	Urban Minor Arterial	2	35	E	1,410	1,116	2%	1,184	0.84	No
Tropical Trl												
147	Merritt Ave	SR 520	Urban Major Collector	2	25	E	1,410	792	2%	840	0.60	No
126	Cone Rd	Plantation Rd	Urban Major Collector	2	35	E	1,130	691	2%	733	0.65	No

Notes

1. Data obtained from Space Coast TPO 2020 Functional Classification, MAV, and LOS Table and 2020 FDOT Q/LOS Table

2. Backgorund (2025) Peak Hour Two-Way Volume developed by applying the calculated growth rates.

4.3 BACKGROUND INTERSECTION ANALYSIS

An intersection operational analysis was performed for background conditions during the AM and PM peak hours using procedures outlined in the *Highway Capacity Manual, 6th Edition* with Synchro (v11) software. Intersection level of service (LOS) and maximum volume to capacity (v/c) ratios for the AM and PM peak hour background conditions are provided in **Tables 8 and 9**. Synchro outputs are provided in **Appendix G**.

As shown in the tables below, all study area intersections are expected to operate at an acceptable LOS overall and v/c ratio in the background (2025) AM and PM peak hour with the exception of the existing intersection deficiencies and the following:

- SR 520 & Courtenay Parkway
    - Southbound Approach – LOS F – PM Peak Hour

It is anticipated that minor street movements at the study area intersections may operate with high delay during the peak hour. This is due to the green time prioritization for the major street approaches and movements. To mitigate the movements that operate with volume-to-capacity ratios greater than 1.0 under existing and background conditions, minor signal timing adjustments were implemented at the deficiency intersections to reduce v/c ratios to less than 1.0. **Table 10** provides the improved intersections' LOS and maximum volume to capacity (v/c) ratios for the PM peak hour.

Table 8: Background Intersection Conditions (AM Peak Hour)

Background Condition - 2025						
Intersection		Control Type	Approach	AM Peak Hour		
				Max Level of Service	Max V/C Ratio	Max V/C Movement
1	SR 520 & Courtenay Pkwy	Signalized	EB	D	0.89	EBL
			WB	D	0.73	WBL
			NB	F	0.95	NBT/R
			SB	E	0.85	SBR
			Overall	**E (62.2 s)**	**0.95**	**NBT/R**
2	SR 520 & Plumosa St	Signalized	EB	C	0.81	EBL
			WB	A	0.80	WBL
			NB	E	0.78	NBL
			SB	F	0.86	SBT/R
			Overall	**C (27.1 s)**	**0.86**	**SBT/R**
3	SR 520 & Skyes Creek Pkwy	Signalized	EB	B	0.76	EBL
			WB	C	0.58	WBL
			NB	F	0.86	NBR
			SB	E	0.84	SBL
			Overall	**C (30.9 s)**	**0.86**	**NBR**
4	Courtenay Pkwy & Fortenberry Rd	Signalized	EB	D	0.03	EBL/T/R
			WB	C	0.38	WBL/T
			NB	B	0.38	NBT
			SB	A	0.29	SBT/R
			Overall	**B (10.9 s)**	**0.38**	**WBL/T**
5	Fortenberry Rd & Plumosa St	Signalized	EB	D	0.56	EBT/R
			WB	C	0.28	WBL
			NB	B	0.17	NBT
			SB	B	0.25	SBT/R
			Overall	**B (16.9 s)**	**0.56**	**EBT/R**

Table 9: Background Intersection Conditions (PM Peak Hour)

Background Condition - 2025						
Intersection		Control Type	Approach	PM Peak Hour		
				Max Level of Service	Max V/C Ratio	Max V/C Movement
1	SR 520 & Courtenay Pkwy	Signalized	EB	D	0.91	EBL
			WB	E	0.76	WBL
			NB	F	0.94	NBL
			SB	F	0.95	SBR
			Overall	**E (70.5 s)**	**0.95**	**SBR**
2	SR 520 & Plumosa St	Signalized	EB	D	0.85	EBL
			WB	A	0.83	WBL
			NB	F	0.83	NBL
			SB	F	0.90	SBT/R
			Overall	**C (31.4 s)**	**0.90**	**SBT/R**
3	SR 520 & Skyes Creek Pkwy	Signalized	EB	B	0.84	EBL
			WB	C	0.77	WBL
			NB	F	1.19	NBR
			SB	E	0.86	SBL
			Overall	**D (43.6 s)**	**1.19**	**NBR**
4	Courtenay Pkwy & Fortenberry Rd	Signalized	EB	D	0.00	EBL/T/R
			WB	E	1.06	WBL/T
			NB	B	0.50	NBT
			SB	A	0.42	SBT/R
			Overall	**C (20.4 s)**	**1.06**	**WBL/T**
5	Fortenberry Rd & Plumosa St	Signalized	EB	D	0.67	EBT/R
			WB	B	0.37	WBL
			NB	B	0.25	NBT
			SB	B	0.24	SBT/R
			Overall	**B (19.8 s)**	**0.67**	**EBT/R**

Table 10: Background with Improvement Intersection Conditions (PM Peak Hour)

Background with Improvement Condition - 2025							
Intersection		Control Type	Improvement	Approach	PM Peak Hour		
					Max Level of Service	Max V/C Ratio	Max V/C Movement
3	SR 520 & Skyes Creek Pkwy	Signalized	Minor Signal Timing Adjustments	EB	B	0.83	EBL
				WB	C	0.77	WBL
				NB	F	0.90	NBR
				SB	E	0.86	SBL
				Overall	**D (38.3 s)**	**0.90**	**NBR**
4	Courtenay Pkwy & Fortenberry Rd	Signalized	Minor Signal Timing Adjustments	EB	D	0.00	EBL/T/R
				WB	D	0.90	WBL/T
				NB	B	0.55	NBT
				SB	B	0.45	SBT/R
				Overall	**B (19.9 s)**	**0.90**	**WBL/T**

5.0 BUILDOUT CONDITIONS ANALYSIS – YEAR 2025

Buildout volumes were developed by adding anticipated project trips to background volumes. A determination of the impact of project traffic on the roadway network was made, including LOS conditions for the intersections and roadway segments within the study area. Turning movement volume worksheets for all intersections and driveways are provided in **Appendix E.**

Figures 4 and 5 illustrate turning movement buildout volumes at the study intersections for the AM and PM peak hour, respectively.

5.1 BUILDOUT ROADWAY SEGMENT ANALYSIS

A roadway segment analysis was performed within the study area to determine buildout Daily and PM peak hour two-way conditions. The Daily analysis was conducted by comparing the projected 2025 buildout AADT and PM peak hour two-way volume to the segment's Maximum Service Volumes (MSV).

The buildout roadway segment data is included in **Tables 11 and 12** for Daily and PM peak hour conditions, respectively. As shown in the tables, the analysis identifies no roadway capacity deficiencies under buildout (2025) Daily or PM peak hour two-way conditions. No new roadway deficiencies are anticipated due to project impact.

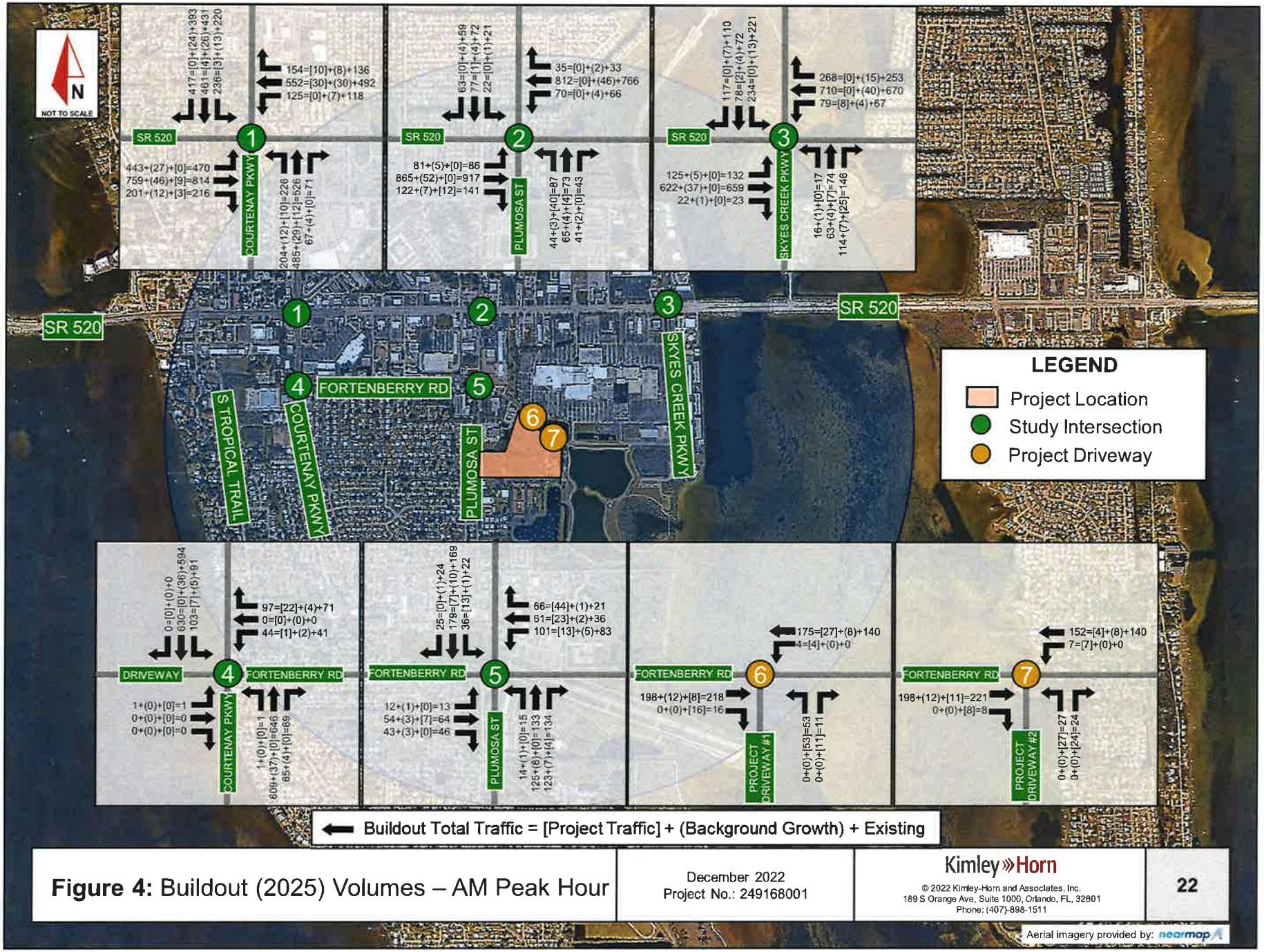


Figure 4: Buildout (2025) Volumes – AM Peak Hour

December 2022
Project No.: 249168001

Kimley»Horn

© 2022 Kimley-Horn and Associates, Inc.
189 S Orange Ave, Suite 1000, Orlando, FL, 32801
Phone: (407)-898-1511

22

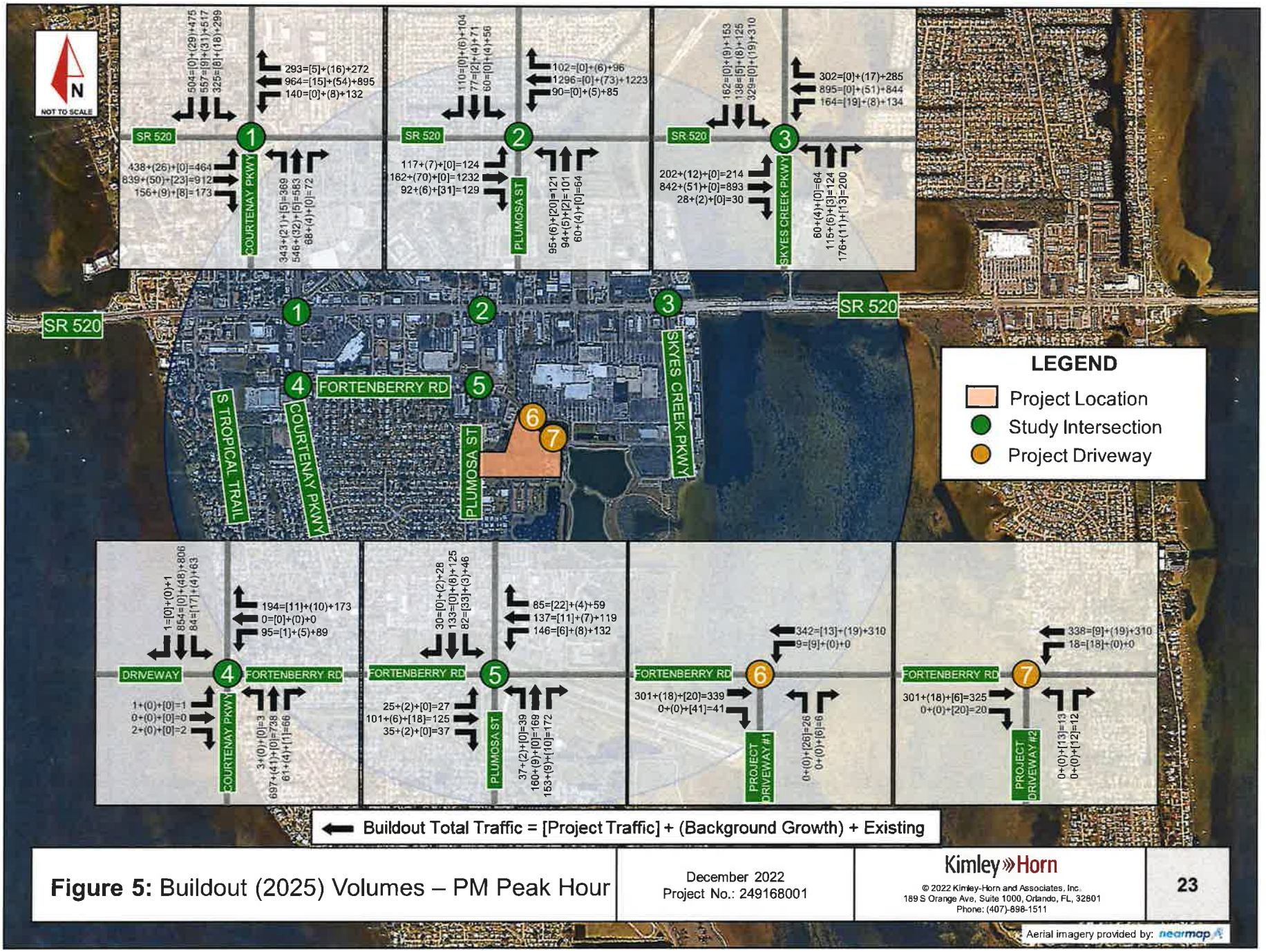


Figure 5: Buildout (2025) Volumes – PM Peak Hour

December 2022
Project No.: 249168001

Kimley»Horn

© 2022 Kimley-Horn and Associates, Inc.
189 S Orange Ave, Suite 1000, Orlando, FL, 32801
Phone: (407)-898-1511

23

Table 11: Buildout Roadway Segment Analysis (Daily)

Roadway Link ID	From	To	Roadway Attributes [1] Functional Classification	Number of Lanes	Speed Limit	Adopted LOS [1]	Daily MSV [1]	Daily - Buildout (2025) Background 2025 AADT	Project Trips % Assign [2]	Project Trips	Buildout 2025 AADT [3]	V/C Ratio	Buildout Deficiency?
Fortenberry Rd													
119	Courtenay Pkwy	Plumosa St	Urban Major Collector	2	35	E	15,600	4,221	20%	344	4,565	0.29	No
154	Plumosa St	Skyes Creek Pkwy	Urban Major Collector	2	35	E	15,600	4,221	69%	1,185	5,406	0.35	No
Cone Rd													
117	Tropical Trl	Courtenay Pkwy	Urban Minor Collector	2	35	E	15,600	4,546	2%	34	4,580	0.29	No
115	Courtenay Pkwy	Plumosa St	Urban Minor Collector	2	35	D	15,600	5,196	10%	172	5,368	0.34	No
S Plumosa St													
106	Merritt Ave	SR 520	Urban Minor Collector	2	25	E	15,600	5,694	3%	52	5,746	0.37	No
120	SR 520	Fortenberry Rd	Urban Minor Collector	2	25	E	15,600	4,503	39%	670	5,173	0.33	No
116	Fortenberry Rd	Cone Rd	Urban Minor Collector	2	35	E	15,600	5,217	11%	189	5,406	0.35	No
SR 520													
101	Bridge	Tropical Trl	Urban Principal Arterial - Other	6	45	D	59,900	47,659	34%	584	48,243	0.81	No
148	Tropical Trl	Courtenay Pkwy	Urban Principal Arterial - Other	6	45	D	59,900	40,407	35%	601	41,008	0.68	No
97	Courtenay Pkwy	Plaza Ent	Urban Principal Arterial - Other	6	45	D	62,900	32,505	35%	601	33,106	0.53	No
98	Plaza Ent	Plumosa St	Urban Principal Arterial - Other	6	45	D	62,900	32,127	35%	601	32,728	0.52	No
99	Plumosa St	Mall Ent	Urban Principal Arterial - Other	6	45	D	62,900	30,503	1%	17	30,520	0.49	No
100	Mall Ent	Skyes Creek Pkwy	Urban Principal Arterial - Other	6	45	D	62,900	25,794	1%	17	25,811	0.41	No
149	Skyes Creek Pkwy	Newbound Harbor Dr	Urban Principal Arterial - Other	6	45	D	62,900	30,828	22%	378	31,206	0.50	No
Skyes Creek Pkwy													
108	N Banana River Dr	Merritt Ave	Urban Major Collector	2	45	D	17,700	10,478	6%	103	10,581	0.60	No
121	Merritt Ave	SR 520	Urban Major Collector	4	45	D	39,800	11,658	6%	103	11,761	0.30	No
123	SR 520	Fortenberry Rd	Urban Major Collector	4	35	E	33,800	4,384	28%	481	4,865	0.14	No
Merritt Ave													
103	Courtenay Pkwy	Plumosa St	Urban Major Collector	4	35	E	33,800	13,833	2%	34	13,867	0.41	No
Courtenay Pkwy													
131	Needle Blvd	Merritt Ave	Urban Principal Arterial - Other	4	40	D	41,790	34,779	18%	309	35,088	0.84	No
130	Merritt Ave	SR 520	Urban Principal Arterial - Other	4	40	D	41,790	28,306	19%	326	28,632	0.69	No
139	SR 520	Magnolia Ave	Urban Minor Arterial	4	35	E	33,800	19,332	19%	326	19,658	0.58	No
122	Magnolia Ave	Fortenberry Rd	Urban Minor Arterial	4	35	E	33,800	18,228	19%	326	18,554	0.55	No
114	Cone Rd	Banana Blvd	Urban Minor Arterial	2	35	E	15,600	11,874	1%	17	11,891	0.76	No
Tropical Trl													
147	Merritt Ave	SR 520	Urban Major Collector	2	25	E	15,600	8,768	1%	17	8,785	0.56	No
126	Cone Rd	Plantation Rd	Urban Major Collector	2	35	E	12,480	7,285	2%	34	7,319	0.59	No

Notes

1. Data obtained from Space Coast TPO 2020 Functional Classification, MAV, and LOS Table.

2. Percent assigned as the highest percent across the segment.

3. Buildout (2025) AADT developed by adding project trips to background (2025) volumes.

Table 12: Buildout Roadway Segment Analysis (PM Peak Hour)

Roadway			Roadway Attributes[1]					Peak Hour - Buildout (2025)					
									Project Trips				
Link ID	From	To	Functional Classification	Number of Lanes	Speed Limit	Adopted LOS[1]	Peak Hour Two-Way MSV[1]	Background 2025 Peak Hour Two-Way Volume	% Assign[2]	Project Trips	Buildout 2025 Peak Hour Two-way Volume[3]	V/C Ratio	Buildout Deficiency?
Fortenberry Rd													
119	Courtenay Pkwy	Plumosa St	Urban Major Collector	2	35	E	1,410	423	20%	29	452	0.32	No
154	Plumosa St	Skyes Creek Pkwy	Urban Major Collector	2	35	E	1,410	539	69%	100	639	0.45	No
Cone Rd													
117	Tropical Trl	Courtenay Pkwy	Urban Minor Collector	2	35	E	1,410	457	2%	3	460	0.33	No
115	Courtenay Pkwy	Plumosa St	Urban Minor Collector	2	35	E	1,410	584	10%	15	599	0.42	No
Plumosa St													
106	Merritt Ave	SR 520	Urban Minor Collector	2	25	E	1,410	577	3%	4	581	0.41	No
120	SR 520	Fortenberry Rd	Urban Minor Collector	2	25	E	1,410	445	39%	57	502	0.36	No
116	Fortenberry Rd	Cone Rd	Urban Minor Collector	2	35	E	1,410	517	11%	16	533	0.38	No
SR 520													
101	Bridge	Tropical Trl	Urban Principal Arterial - Other	6	45	D	5,390	4,139	34%	49	4,188	0.78	No
148	Tropical Trl	Courtenay Pkwy	Urban Principal Arterial - Other	6	45	D	5,390	3,308	35%	51	3,359	0.62	No
97	Courtenay Pkwy	Plaza Ent	Urban Principal Arterial - Other	6	45	D	5,660	2,845	35%	51	2,896	0.51	No
98	Plaza Ent	Plumosa St	Urban Principal Arterial - Other	6	45	D	5,660	2,779	35%	51	2,830	0.50	No
99	Plumosa St	Mall Ent	Urban Principal Arterial - Other	6	45	D	5,660	2,675	1%	1	2,676	0.47	No
100	Mall Ent	Skyes Creek Pkwy	Urban Principal Arterial - Other	6	45	D	5,660	2,031	1%	1	2,032	0.36	No
149	Skyes Creek Pkwy	Newbound Harbor Dr	Urban Principal Arterial - Other	6	45	D	5,660	2,805	22%	32	2,837	0.50	No
Skyes Creek Pkwy													
108	N Banana River Dr	Merritt Ave	Urban Major Collector	2	45	D	1,600	1,013	6%	9	1,022	0.64	No
121	Merritt Ave	SR 520	Urban Major Collector	4	45	D	3,580	1,007	6%	9	1,016	0.28	No
123	SR 520	Fortenberry Rd	Urban Major Collector	4	35	E	3,040	458	28%	41	499	0.16	No
Merritt Ave													
103	Courtenay Pkwy	Plumosa St	Urban Major Collector	4	35	E	3,040	1,332	2%	3	1,335	0.44	No
Courtenay Pkwy													
131	Needle Blvd	Merritt Ave	Urban Principal Arterial - Other	4	40	D	3,760	2,673	18%	26	2,699	0.72	No
130	Merritt Ave	SR 520	Urban Principal Arterial - Other	4	40	D	3,760	2,327	19%	28	2,355	0.63	No
139	SR 520	Magnolia Ave	Urban Minor Arterial	4	35	E	3,040	1,701	19%	28	1,729	0.57	No
122	Magnolia Ave	Fortenberry Rd	Urban Minor Arterial	4	35	E	3,040	1,411	19%	28	1,439	0.47	No
114	Cone Rd	Banana Blvd	Urban Minor Arterial	2	35	E	1,410	1,184	1%	1	1,185	0.84	No
Tropical Trl													
147	Merritt Ave	SR 520	Urban Major Collector	2	25	E	1,410	840	1%	1	841	0.60	No
126	Cone Rd	Plantation Rd	Urban Major Collector	2	35	E	1,130	733	2%	3	736	0.65	No

Notes

1. Data obtained from Space Coast TPO 2020 Functional Classification, MAV, and LOS Table and 2020 FDOT Q/LOS Table

2. Percent assigned as the highest percent across the segment.

3. Buildout (2025) Peak Hour Two-Way Volume developed by adding project trips to background (2025) volumes.

5.2 BUILDOUT INTERSECTION ANALYSIS

An intersection operational analysis was performed for Year 2025 buildout conditions during the AM and PM peak hours using procedures outlined in the *Highway Capacity Manual, 6th Edition* with Synchro (v11) software. Intersection level of service (LOS), delay, and maximum volume to capacity (v/c) ratios for the AM and PM peak hour buildout conditions are provided in **Tables 13 and 14**. Synchro outputs are provided in **Appendix G**.

As shown in the tables below, all study area intersections operate at an acceptable overall LOS and with v/c ratios less than one (1.0) in the buildout AM and PM peak hour. There are minor street approaches at the intersections along SR 520 that continue to operate with high delay. This is due to the prioritization of green time on the major road, SR 520. The maximum v/c ratio for movements on these minor street approaches are still less than one (1.0). The proposed project driveways operate efficiently under buildout conditions. Therefore, no new deficiencies were identified as a result of the proposed development.

Table 13: Buildout Intersection Conditions (AM Peak Hour)

Buildout Condition - 2025							
Intersection		Control Type	Approach	AM Peak Hour			
				Max Level of Service	Max V/C Ratio	Max V/C Movement
1	SR 520 & Courtenay Pkwy	Signalized	EB	D	0.89	EBL
			WB	D	0.73	WBL
			NB	F	0.97	NBT/R
			SB	E	0.86	SBR
			Overall	**E (63.4 s)**	**0.97**	**NBT/R**
2	SR 520 & Plumosa St	Signalized	EB	C	0.81	EBL
			WB	A	0.80	WBL
			NB	E	0.82	NBL
			SB	F	0.87	SBT/R
			Overall	**C (29.1 s)**	**0.87**	**SBT/R**
3	SR 520 & Skyes Creek Pkwy	Signalized	EB	B	0.76	EBL
			WB	C	0.64	WBL
			NB	F	0.90	NBR
			SB	E	0.84	SBL
			Overall	**C (32.9 s)**	**0.90**	**NBR**
4	Courtenay Pkwy & Fortenberry Rd	Signalized	EB	D	0.03	EBL/T/R
			WB	C	0.39	WBL/T
			NB	B	0.38	NBT
			SB	A	0.29	SBT/R
			Overall	**B (11.2 s)**	**0.39**	**WBL/T**
5	Fortenberry Rd & Plumosa St	Signalized	EB	D	0.63	EBT/R
			WB	C	0.33	WBL
			NB	B	0.17	NBT
			SB	B	0.24	SBT/R
			Overall	**B (18.0 s)**	**0.63**	**EBT/R**
6	Project Driveway 1 & Fortenberry Rd	Unsignalized (TWSC)	EB(L)	-	-	-
			WB(L)	A	0.00	WBL
			NB	B	0.12	NBL/R
			SB	-	-	-
			Overall	**-**	**0.12**	**NBL/R**
7	Project Driveway 2 & Fortenberry Rd	Unsignalized (TWSC)	EB(L)	-	-	-
			WB(L)	A	0.01	WBL
			NB	B	0.08	NBL/R
			SB	-	-	-
			Overall	**-**	**0.08**	**NBL/R**

Table 14: Buildout Intersection Conditions (PM Peak Hour)

Buildout Condition - 2025						
Intersection		Control Type	Approach	PM Peak Hour		
				Max Level of Service	Max V/C Ratio	Max V/C Movement
1	SR 520 & Courtenay Pkwy	Signalized	EB	D	0.91	EBL
			WB	E	0.76	WBL/R
			NB	F	0.95	NBL
			SB	F	0.95	SBR
			Overall	**E (71.2 s)**	**0.95**	**NBL**
2	SR 520 & Plumosa St	Signalized	EB	D	0.85	EBL
			WB	A	0.83	WBL
			NB	F	0.85	NBL
			SB	F	0.90	SBT/R
			Overall	**C (32.5 s)**	**0.90**	**SBT/R**
3	SR 520 & Skyes Creek Pkwy	Signalized	EB	B	0.83	EBL
			WB	D	0.79	WBL
			NB	F	0.91	NBR
			SB	E	0.86	SBL
			Overall	**D (39.5 s)**	**0.91**	**NBR**
4	Courtenay Pkwy & Fortenberry Rd	Signalized	EB	D	0.00	EBL/T/R
			WB	D	0.91	WBL/T
			NB	B	0.56	NBT
			SB	B	0.45	SBT/R
			Overall	**C (20.2 s)**	**0.91**	**WBL/T**
5	Fortenberry Rd & Plumosa St	Signalized	EB	D	0.79	EBT/R
			WB	C	0.42	WBL
			NB	B	0.25	NBT
			SB	B	0.23	SBT/R
			Overall	**C (22.4 s)**	**0.79**	**EBT/R**
6	Project Driveway 1 & Fortenberry Rd	Unsignalized (TWSC)	EB(L)	-	-	-
			WB(L)	A	0.01	WBL
			NB	C	0.09	NBL/R
			SB	-	-	-
			Overall	**-**	**0.09**	**NBL/R**
7	Project Driveway 2 & Fortenberry Rd	Unsignalized (TWSC)	EB(L)	-	-	-
			WB(L)	A	0.02	WBL
			NB	B	0.06	NBL/R
			SB	-	-	-
			Overall	**-**	**0.06**	**NBL/R**

5.3 BUILDOUT DRIVEWAY INGRESS TURN LANE ANALYSIS

The need for exclusive ingress left-turn and right-turn lanes at the proposed project driveways on Fortenberry Road were evaluated using the National Cooperative Highway Research Program (NCHRP) Report 457 thresholds.

The need for exclusive right-turn lanes at the full access project driveways on Fortenberry Road was determined by comparing the right turning volumes with the approach volume. Based on the project volumes shown in **Figures 4 and 5** and thresholds specified by the NCHRP Report 457, right-turn lanes are not warranted at either of the project driveways on Fortenberry Road.

The need for exclusive left-turn lanes at the full access project driveways on Fortenberry Road was determined by comparing the percent left turning volume with the advancing and opposing volumes. Based on the project volumes shown in **Figures 4 and 5** and thresholds specified by the NCHRP Report 457, left-turn lanes are not warranted at either of the project driveways on Fortenberry Road.

NCHRP outputs are provided in **Appendix J**.

6.0 CONCLUSION

This traffic impact analysis was performed to analyze and document the transportation impacts associated with the buildout of the proposed Merritt Island Apartments development located south of Fortenberry Road, west of Harbor Woods Boulevard, and north of Lands Way in Brevard County. The development, proposed for buildout in 2025, will consist of ±370 multifamily dwelling units. Access to the site will be provided via one (1) full access driveway on Fortenberry Road and one (1) full access driveway off Harbor Woods Boulevard.

The proposed development is anticipated to generate 1,718 daily trips, 151 AM peak hour trips (35 inbound and 116 outbound), and 145 PM peak hour trips (88 inbound and 57 outbound) based on data from the ITE *Trip Generation Manual*. Project trips were distributed onto the surrounding roadway network using the adopted regional travel demand model and manual assignment at the study area intersections.

A roadway segment capacity analysis was performed for the study area roadway segments for existing, background, and buildout conditions. The Daily and PM peak hour two-way analysis identified no roadway segment capacity deficiencies within the study area.

An operational analysis for existing and future conditions was performed at the study area intersections. All study intersections were found to operate at an acceptable overall LOS and v/c ratio in the AM and PM peak hour with proposed background improvements. There are minor street approaches at the intersections along SR 520 that operate with high delay under existing, background, and buildout conditions. This is due to the prioritization of green time for the major road, SR 520. The maximum v/c ratio for movements on these minor street approaches are still less than one (1.0). No new deficiencies were identified as a result of the proposed development.

The need for exclusive ingress right-turn lanes and left-turn lanes at the full access project driveways on Fortenberry Road was evaluated based on the National Cooperative Highway Research Program (NCHRP) Report 457 thresholds. No ingress turn lanes are warranted at the project driveways on Fortenberry Road.

H.8

Objection
22Z00062
Project Zenith

Commissioner, D4

From: Laura Ficker <laura.ficker@yahoo.com>
Sent: Monday, January 30, 2023 2:17 PM
To: Commissioner, D4
Subject: ID#2428002,2428163,2428161,2428157

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Dear Commissioner Rob Feltner,

I am writing regarding zoning change from BU1, BU2 to a PUD.

I am a resident in neighboring Merritt Ridge. We have lived here for over 40 years.
I am concerned with the amount of traffic this would create on Plumosa St. We would be trapped in our neighborhood. At certain times of the day it is already difficult to come and go from both the Belaire and Merritt Ridge neighborhoods. This rezoning would only add to traffic. This zoning change would add to amount of kids going to and from schools. I fear that traffic would be cutting thru our neighborhoods.

My husband and I walk a couple of miles everyday at The Veterans Memorial Park. It is such a beautiful park to walk. I am concerned about these precious wetlands that would be effected by this zoning change.

Thank you for your time in listening to my concerns. I hope you will support our neighborhoods by voting against this zoning change

Thank you

Laura Ficker
479 Falmouth Ave (Merritt Ridge)
Merritt Island, FL 32952

Sent from Yahoo Mail for iPad

Sent from Yahoo Mail for iPad

Objection
22Z00062
Project Zenith

From: Roig, Janette on behalf of Commissioner, D5
To: Jones, Jennifer
Subject: FW: Merritt Zenith Project LLC Zoning change request
Date: Wednesday, February 1, 2023 9:03:55 AM

From: phil cohen <psethcohen@gmail.com>
Sent: Tuesday, January 31, 2023 10:39 PM
To: Commissioner, D5 <D5.Commissioner@brevardfl.gov>
Subject: Merritt Zenith Project LLC Zoning change request

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Dear Commissioner Zonka,

I'm writing this Email to you to urge you not to approve the zoning changes to Merritt Zenith Project LLC as requested on Parcel ID #'s 2428002, 2428163, 2428161, and 2428157 with all of the waivers in which they have requested! This huge development is being requested through waivers in a manner that does not respect the current demands the county zoning for a of a project of this size.

As a property owner adjacent to this project to the south, I oppose this project **as they are *presently* requesting it of you.**

The players in this project ***"have the option and means of meeting all of the County requirements"*** in which they are requesting a waiver's for in this zoning change request. And I strongly oppose this development without meeting all the necessary requirements presently on the books in Brevard County for a project like this. The Waivers they are requesting are not necessary and it wouldn't be fair to the county and its present taxpaying residents. Below is what they are asking for...

1. They are 1.1 acres shy of enough greenspace required by the county for a dense project of this size!

2. They are requesting less of a setback then is required for one of their buildings. And plan to develop parking all the way up to the property line.

3. They are requesting only 2 entrance and exits, A development of this size requires 3, **This is a huge emergency/safety concern** not to mention all traffic in & out of their complex would then over run Fortenberry Road which cannot handle that traffic in its present state without turning lanes!

4. They are wanting to use the county owned entrance to Harbor Woods as one of their entrances and exits which is one way in & one way out!

5. They are also requesting and planning this project without ANY means of water runoff retention on their own property! This is absurd!

All of this area of Merritt Island is very low lying and presently has major water runoff issues without any buildings and pavement. To consider a project like this without them handling their own runoff would be a gross mis step on the county's behalf!

They propose to use the county's lake which was created to handle the Veterans Park's present and future development which is already on the books for more development including the new amphitheater and parking necessary for that project.

My other concerns and they should be yours as well Is as follows:

- Merritt Island's sewage/wastewater infostructure's ability to manage a project of this size. The pump station on Plumosa St is already overloaded and has ongoing issues in keeping up with the present volume of waste as it is, without adding 370 one, two & three bedroom apartments with multiple baths.... **And we are already soon to add all of the new units of the "Fly in Tower" condos to this overloaded system *this year*!**

- Traffic infostructure needs on both Fortenberry Rd as well as Plumosa St in order to handle this increase of traffic.

- Overall stormwater control and water runoff in the surrounding areas.

- Sidewalks and street crossovers.

In closing, As I mentioned, they have the means to meet and exceed the community's needs in order to accomplish a huge project such as this. Please DO NOT GRANT THESE WAIVERS and allow a huge multimillion dollar corporation to start a project like this by cutting corners right from the start!

Make them step up and meet the requirements of the county without the waivers should you consider this project going forward. They have the option on their table and the ability to do it right!

Do Your Job! And demand that they do theirs, properly and fairly for the county and our community!

Sincerely,

Philip Cohen

Property owner and 47 year resident of Merritt Island

psethcohen@gmail.com

Objection
22Z00062
Project Zenith

From: Roig, Janette on behalf of Commissioner, D5
To: Jones, Jennifer
Cc: Zonka, Kristine
Subject: FW: Zoning Change
Date: Wednesday, February 1, 2023 9:04:12 AM

Forwarded to Jennifer Jones

-----Original Message-----
From: CURTIS HERRIN <curtisherrin@icloud.com>
Sent: Tuesday, January 31, 2023 7:01 PM
To: Commissioner, D1 <D1.Commissioner@brevardfl.gov>; Commissioner, D2 <D2.Commissioner@brevardfl.gov>; Commissioner, D3 <d3.commissioner@brevardfl.gov>; Commissioner, D4 <D4.Commissioner@brevardfl.gov>; Commissioner, D5 <D5.Commissioner@brevardfl.gov>
Subject: Zoning Change

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

I am OPPOSED to the zoning change from B-1 & B-2 to a PUD of parcel ID #'s 2428002, 2528163, 2428161 & 2428157.

This will cause more traffic issues with ingress & egress. This is also zoned as wetland. Those that live here know of the poor drainage during the rainy season even without a tropical storm.

Thank you for your time.

Curtis Herrin

Objection
22Z00062
Project Zenith

From: Roig, Janette on behalf of Commissioner, D5
To: Jones, Jennifer
Subject: FW: Zoning change ID#2428002,2428163,2428161,2428157
Date: Wednesday, February 1, 2023 9:04:37 AM

From: Laura Ficker <laura.ficker@yahoo.com>
Sent: Monday, January 30, 2023 2:19 PM
To: Commissioner, D5 <D5.Commissioner@brevardfl.gov>
Subject: Zoning change ID#2428002,2428163,2428161,2428157

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Dear Commissioner Kristine Zonka,

I am writing regarding zoning change from BU1, BU2 to a PUD.

I am a resident in neighboring Merritt Ridge. We have lived here for over 40 years.
I am concerned with the amount of traffic this would create on Plumosa St. We would be trapped in our neighborhood. At certain times of the day it is already difficult to come and go from both the Belaire and Merritt Ridge neighborhoods. This rezoning would only add to traffic. This zoning change would add to amount of kids going to and from schools. I fear that traffic would be cutting thru our neighborhoods.

My husband and I walk a couple of miles everyday at The Veterans Memorial Park. It is such a beautiful park to walk. I am concerned about these precious wetlands that would be effected by this zoning change.

Thank you for your time in listening to my concerns. I hope you will support our neighborhoods by voting against this zoning change

Thank you

Laura Ficker
479 Falmouth Ave (Merritt Ridge)
Merritt Island, FL 32952

Sent from Yahoo Mail for iPad

Sent from Yahoo Mail for iPad

Objection
22Z00062
Project Zenith

From: Roig, Janette on behalf of Commissioner, D5
To: Jones, Jennifer
Subject: FW: Opposition to Rezoning these Parcel ID"s: 2428002, 2428163, 2428161, 2428157
Date: Wednesday, February 1, 2023 9:04:42 AM

From: Brian Bell <bellbenefits@gmail.com>
Sent: Monday, January 30, 2023 10:27 AM
To: Brian Bell <bellbenefits@gmail.com>
Subject: Opposition to Rezoning these Parcel ID's: 2428002, 2428163, 2428161, 2428157

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Please know that I live close to the subject properties and I oppose rezoning from BU-1 and BU-2 to a PUD.

The proposed 370 unit condominium/apartments will have a serious and lasting negative impact on the roads, sewage, water run off infrastructure to this area and surrounding environs.

We, as citizens, are appalled at the shady and underhanded way in which the wetland zoning has been changed to allow this possible development.

My wife and I will be attending the February 2nd meeting to voice our opposition to this disregard for existing citizens and their safety.
Thank you,

Brian Bell, LUTC
Benefit Providers LLC
321-501-1043
https://www.seniorbenefitproviders.com/

Objection
22Z00062
Project Zenith

From: Roig, Janette on behalf of Commissioner, D5
To: Jones, Jennifer
Subject: FW: Changing Merritt Island wetlands for a 370 multi-family apartment comples
Date: Wednesday, February 1, 2023 9:05:17 AM

From: Colleen Pierson <cpier38620@aol.com>
Sent: Thursday, January 26, 2023 8:02 AM
To: Commissioner, D2 <D2.Commissioner@brevardfl.gov>
Cc: Commissioner, D1 <D1.Commissioner@brevardfl.gov>; Commissioner, D3 <d3.commissioner@brevardfl.gov>; Commissioner, D4 <D4.Commissioner@brevardfl.gov>; Commissioner, D5 <D5.Commissioner@brevardfl.gov>
Subject: Changing Merritt Island wetlands for a 370 multi-family apartment comples

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

I am emailing to express my displeasure of the way you are handling our wetlands for multi-family apartment development of parcel ID#2428002, 2428163,2428161 and 2428157. We know you quietly passed a zoning change from BU-1 and BU-2 to a PUD to allow this to go forward.
Do you realize how many vehicles will be added to our 2 land roads which are already crowded and our poor drainage issues of which I have already address to you.

Please don't do this. You will be adding to the existing problems not fixing them.

Sincerely,

Colleen Pierson
140 Bel Aire Dr. S.
Merritt Island

Objection
22Z00062
Project Zenith

From: Roig, Janette on behalf of Commissioner, D5
To: Jones, Jennifer
Subject: FW: Proposed Merritt Island Apartment Complex next to VFW Park on Fortenberry Road
Date: Wednesday, February 1, 2023 9:05:27 AM

-----Original Message-----
From: Carol <carangel@onemain.com>
Sent: Wednesday, January 25, 2023 4:01 PM
To: Commissioner, D2 <D2.Commissioner@brevardfl.gov>
Cc: Commissioner, D1 <D1.Commissioner@brevardfl.gov>; Commissioner, D3 <d3.commissioner@brevardfl.gov>; Commissioner, D4 <D4.Commissioner@brevardfl.gov>; Commissioner, D5 <D5.Commissioner@brevardfl.gov>
Subject: Proposed Merritt Island Apartment Complex next to VFW Park on Fortenberry Road

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

In my previous email to you today, I referred to five 5-story buildings. I am aware that the current proposed plan is for three 5-story buildings. All the points I made in the prior email objecting to the project are exactly the same, whether it's three or five buildings.

Thank you.

Carol Waxman

From: Roig, Janette on behalf of Commissioner, D5
To: Jones, Jennifer
Subject: FW: Proposed apartment complex on Merritt Island next to Veterans Memorial Park on Fortenberry Road
Date: Wednesday, February 1, 2023 9:05:32 AM

-----Original Message-----
From: Carol <carangel@onemain.com>
Sent: Wednesday, January 25, 2023 2:46 PM
To: Commissioner, D2 <D2.Commissioner@brevardfl.gov>
Cc: Commissioner, D1 <D1.Commissioner@brevardfl.gov>; Commissioner, D3 <d3.commissioner@brevardfl.gov>; Commissioner, D4 <D4.Commissioner@brevardfl.gov>; Commissioner, D5 <D5.Commissioner@brevardfl.gov>
Subject: Proposed apartment complex on Merritt Island next to Veterans Memorial Park on Fortenberry Road

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

I would like to state my very strong objection to the building of this complex on Fortenberry Road in Merritt Island. It is completely out of place in an area of one-or two-story homes in nearby subdivisions and two-story condo complexes. Given its size and density, the proposed complex would be built on a postage stamp-size lot that looks in shape like a radically gerrymandered district.

The surrounding roads are totally inadequate to accommodate five new five-story buildings and approximately 380 new families. There are already issues with water drainage in the neighboring Penn Place condos right next to the proposed site. That would only get worse with this new construction. I understand there are other considerable drainage/water issues.

As for traffic, Fortenberry Road does not even have a left turn lane when you are driving west on Fortenberry and want to turn left onto Harbor Woods Boulevard. All traffic behind you on Fortenberry is stopped as you wait to cross the oncoming traffic to get in there. Try adding 380 new families to that number of people trying to turn in.

And I was told at the informational meeting on January 4th, 2023, that Plumosa would not be used for ingress and egress to the new complex except for emergency vehicles like fire and police. It now appears in the latest incarnation of their proposed plan that Plumosa might have to be used for ordinary ingress and egress. Plumosa is like a country road, with one lane in each direction and it would not support the kind of traffic that would come from these densely occupied apartment buildings.

The VFW park is a gift that dropped from heaven for the residents of the nearby subdivisions, like mine. That gift of a peaceful, beautiful place to walk is now trying to be squeezed into the new complex's acreage requirement to accommodate the fact that this complex does not have enough open space to meet those acreage requirements for the number of units they'd build. So now they're saying they'll just add in the acreage of the VFW park to their own in order to overcome the fact that their combined lots are not sufficient to meet the open space requirement for their number of units in five 5-story buildings.

Many of us who walk regularly in the park enjoy the beautiful sunset to the west. While the developer said the residents of the 5-story buildings would have a beautiful view of the park, conversely, those of us in the park instead of seeing the beautiful treeline, clouds and a setting sun to the west, would see five concrete buildings. Talk about impact on quality of life.

Aside from traffic and drainage problems, aesthetically it just doesn't fit. I'm not against all development, but I am objecting to trying to squeeze a big apartment complex into a small raggedly shaped lot and impacting the natural beauty of the wetlands and the park in order to profit from this three-building five-story apartment development. I cannot object strongly enough. I am a 40+ year resident of Merritt Island and this proposed project is inappropriate

for the space and destructive to the quality of life of those in the surrounding areas they're trying to build on top of.

Please do NOT support this particular development.

Carol Waxman

Objection
22Z00062
Project Zenith

From: Roig, Janette on behalf of Commissioner, D5
To: Jones, Jennifer
Subject: FW: Proposed 370 unit apartments
Date: Wednesday, February 1, 2023 9:06:04 AM

-----Original Message-----
From: christopher wallace <christopher.wallace9@icloud.com>
Sent: Monday, January 23, 2023 11:23 PM
To: Commissioner, D5 <D5.Commissioner@brevardfl.gov>
Subject: Proposed 370 unit apartments

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Good afternoon to all of you,

I am reaching out today to oppose the proposed 370 unit apartment complex being planned behind Merritt Square Mall and next to the Bel Aire subdivision. I am a 35 year resident of Bel Aire and we currently own two homes in this neighborhood. My concerns are that the area already floods and holds water even during a small afternoon storm Much less the flooding during names storms. The residents of our community never received any notice on this unless you lived within 500 ft of our rear entrance unfortunately a protect of this size will negatively impact us through drainage, ingress and egress and the current waste water pump station at the corner of Plumosa and Fortenberry road had to be pumped out and hauled off during the last two hurricanes we had it can't handle the waste strain that this project would create on a daily basis. The retention pond to the east of the project where the supposed run off would go was at crest level parallel with the road during those same storms previously mentioned. Please take in consideration all of these infrastructure issues I have listed with our existing 60 year old community and know the negative impact of a new much higher elevation build would cause to all of the surrounding homes and businesses surrounding the three parcels I know it's to late to stop the zoning change and eliminating the wetland status as this project was slipped under our noses before we know what was happening but myself and many other neighbors will be in attendance at the 2/2/23 meeting when This project is to be voted on.

Thank you for your time,
Chris Wallace
340 Antigua drive
130 S Bel Aire drive Merritt Island 32952
321-848-4228

Sent from my iPhone

H.8

BREVARD County

BOARD OF COUNTY COMMISSIONERS

FLORIDA'S SPACE COAST

District 4 Commission
2725 Judge Fran Jamieson Way
Viera, FL 32940 Suite: C-214

Phone: (321) 633-2044

Planning and Development
Zoning Meeting – February 2, 2023
NDA Merritt Project Zenith, LLC and SES Merritt Project Zenith, LLC – 22Z00062

Commissioner Feltner spoke to Mr. Robin Fisher regarding the above item on January 31, 2023.

Mr. Fisher asked the Commissioner if he had any questions about the project. Commissioner Feltner stated that he did not.

Objection
22Z00062
Project Zenith

From: Colleen Pierson
To: Commissioner, D2
Cc: Commissioner, D1; Commissioner, D3; Commissioner, D4; Commissioner, D5
Subject: Changing Merritt Island wetlands for a 370 multi-family apartment comples
Date: Thursday, January 26, 2023 8:01:53 AM

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

I am emailing to express my displeasure of the way you are handling our wetlands for multi-family apartment development of parcel ID#2428002, 2428163,2428161 and 2428157. We know you quietly passed a zoning change from BU-1 and BU-2 to a PUD to allow this to go forward.
Do you realize how many vehicles will be added to our 2 land roads which are already crowded and our poor drainage issues of which I have already address to you.

Please don't do this. You will be adding to the existing problems not fixing them.

Sincerely,

Colleen Pierson
140 Bel Aire Dr. S.
Merritt Island

Objection
22Z00062
Project Zenith

From: cball1@cfl.rr.com
To: Commissioner, D3
Subject: FW: Opposition to Planned Apartments in Merritt Island
Date: Wednesday, January 25, 2023 11:46:31 AM

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Commissioner John Tobia,

This email is in reference to parcel ID #'s 2428002, 2428163, 2428161, & 2428157.

I live in and am Secretary/Treasurer for Penn Place Condo Assn on South Plumosa St. Our condos were built in 1980 and over the years have had increasing problems with flooding with heavy rains and hurricanes. In fact, the Jehovah's Witness Church just to the South of us built up a parking lot behind their building a few years ago which caused water runoff onto our property. I can only imagine what more build up in the area to the North and East of us is going to do!

I would like you to know that I oppose this zoning change from BU-1 & BU-2 to a PUD to allow the building of a 370 multi-family unit apartment complex with a clubhouse and parking. Not only will this allow the developers to build on an area that is currently zoned as a wetland, but it will cause issues with traffic, our already existing drainage issues in the area/neighborhood and degrade the ingress & egress of our neighborhood.

Thank you for your time.

Carol Ball

Objection
22Z00062
Project Zenith

From: Brian Bell
To: Brian Bell
Subject: Opposition to Rezoning these Parcel ID"s: 2428002, 2428163, 2428161, 2428157
Date: Monday, January 30, 2023 10:26:59 AM

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Please know that I live close to the subject properties and I oppose rezoning from BU-1 and BU-2 to a PUD.

The proposed 370 unit condominium/apartments will have a serious and lasting negative impact on the roads, sewage, water run off infrastructure to this area and surrounding environs.

We, as citizens, are appalled at the shady and underhanded way in which the wetland zoning has been changed to allow this possible development.

My wife and I will be attending the February 2nd meeting to voice our opposition to this disregard for existing citizens and their safety.
Thank you,

Brian Bell, LUTC
Benefit Providers LLC
321-501-1043
https://www.seniorbenefitproviders.com/

Objection
22Z00062
Project Zenith

From: Christopher Wallace
To: Commissioner, D1; Commissioner, D2; Commissioner, D3; D4.commissioner@brevard.gov; D5.commissioner@brevard.gov
Subject: Proposed 370 apartment complex
Date: Monday, January 23, 2023 12:12:37 PM

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Good afternoon to all of you,

I am reaching out today to oppose the proposed 370 unit apartment complex being planned behind Merritt Square Mall and next to the Bel Aire subdivision. I am a 35 year resident of Bel Aire and we currently own two homes in this neighborhood. My concerns are that the area already floods and holds water even during a small afternoon storm
Much less the flooding during names storms. The residents of our community never received any notice on this unless you lived within 500 ft of our rear entrance unfortunately a protect of this size will negatively impact us through drainage, ingress and egress and the current waste water pump station at the corner of Plumosa and Fortenberry road had to be pumped out and hauled off during the last two hurricanes we had it can't handle the waste strain that this project would create on a daily basis. The retention pond to the east of the project where the supposed run off would go was at crest level parallel with the road during those same storms previously mentioned. Please take in consideration all of these infrastructure issues I have listed with our existing 60 year old community and know the negative impact of a new much higher elevation build would cause to all of the surrounding homes and businesses surrounding the three parcels I know it's to late to stop the zoning change and eliminating the wetland status as this project was slipped under our noses before we know what was happening but myself and many other neighbors will be in attendance at the 2/2/23 meeting when This project is to be voted on.

Thank you for your time,
Chris Wallace
340 Antigua drive
130 S Bel Aire drive Merritt Island 32952
321-848-4228

Sent from my iPhone

Objection
22Z00062
Project Zenith

From: Carol
To: Commissioner, D2
Cc: Commissioner, D1; Commissioner, D3; Commissioner, D4; Commissioner, D5
Subject: Proposed apartment complex on Merritt Island next to Veterans Memorial Park on Fortenberry Road
Date: Wednesday, January 25, 2023 2:46:21 PM

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

I would like to state my very strong objection to the building of this complex on Fortenberry Road in Merritt Island. It is completely out of place in an area of one-or two-story homes in nearby subdivisions and two-story condo complexes. Given its size and density, the proposed complex would be built on a postage stamp-size lot that looks in shape like a radically gerrymandered district.

The surrounding roads are totally inadequate to accommodate five new five-story buildings and approximately 380 new families. There are already issues with water drainage in the neighboring Penn Place condos right next to the proposed site. That would only get worse with this new construction. I understand there are other considerable drainage/water issues.

As for traffic, Fortenberry Road does not even have a left turn lane when you are driving west on Fortenberry and want to turn left onto Harbor Woods Boulevard. All traffic behind you on Fortenberry is stopped as you wait to cross the oncoming traffic to get in there. Try adding 380 new families to that number of people trying to turn in.

And I was told at the informational meeting on January 4th, 2023, that Plumosa would not be used for ingress and egress to the new complex except for emergency vehicles like fire and police. It now appears in the latest incarnation of their proposed plan that Plumosa might have to be used for ordinary ingress and egress. Plumosa is like a country road, with one lane in each direction and it would not support the kind of traffic that would come from these densely occupied apartment buildings.

The VFW park is a gift that dropped from heaven for the residents of the nearby subdivisions, like mine. That gift of a peaceful, beautiful place to walk is now trying to be squeezed into the new complex's acreage requirement to accommodate the fact that this complex does not have enough open space to meet those acreage requirements for the number of units they'd build. So now they're saying they'll just add in the acreage of the VFW park to their own in order to overcome the fact that their combined lots are not sufficient to meet the open space requirement for their number of units in five 5-story buildings.

Many of us who walk regularly in the park enjoy the beautiful sunset to the west. While the developer said the residents of the 5-story buildings would have a beautiful view of the park, conversely, those of us in the park instead of seeing the beautiful treeline, clouds and a setting sun to the west, would see five concrete buildings. Talk about impact on quality of life.

Aside from traffic and drainage problems, aesthetically it just doesn't fit. I'm not against all development, but I am objecting to trying to squeeze a big apartment complex into a small raggedly shaped lot and impacting the natural beauty of the wetlands and the park in order to profit from this three-building five-story apartment development. I cannot object strongly enough. I am a 40+ year resident of Merritt Island and this proposed project is inappropriate for the space and destructive to the quality of life of those in the surrounding areas they're trying to build on top of.

Please do NOT support this particular development.

Carol Waxman

Objection
22Z00062
Project Zenith

From: Carol
To: Commissioner, D2
Cc: Commissioner, D1; Commissioner, D3; Commissioner, D4; Commissioner, D5
Subject: Proposed Merritt Island Apartment Complex next to VFW Park on Fortenberry Road
Date: Wednesday, January 25, 2023 4:01:20 PM

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

In my previous email to you today, I referred to five 5-story buildings. I am aware that the current proposed plan is for three 5-story buildings. All the points I made in the prior email objecting to the project are exactly the same, whether it's three or five buildings.

Thank you.

Carol Waxman

Objection
22Z00062
Project Zenith

From: sjperin@cfl.rr.com
To: Commissioner, D3
Subject: Proposed zoning change
Date: Wednesday, January 25, 2023 9:16:59 AM

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Dear Commissioner Tobia,

I am writing to you regarding what is to me and many other Merritt Island residents, a most serious matter.

We have become aware that a developer has petitioned for approval for the construction of a 370 multi-family unit apartment complex on parcels # 2428002, 2428163,2428161 & 2428157 in Merritt Island. We strongly oppose the change from BU-1 & BU-2 to a PUD complete with a clubhouse and parking.

This change would allow the developer to build on an area that is currently zoned as wetland. Such an environmentally impacted change would also result in potential area flooding, in an area that is already faced with flooding problems and exacerbate the current area traffic flow problems and increase neighborhood access and egress problems.

Furthermore, the developer was negligent in the proper posting of signs attesting to the proposed initial petition and the date and time of that hearing were also wrong, thus preventing citizens from presenting their disapproval.

As a representative of the East Merritt Island Homeowners Association, I most sincerely urge you and your colleagues to vote your disapproval.

Sincerely,

Sebastian J. Perin

Objection
22Z00062
Project Zenith

From: Laura Ficker
To: Commissioner, D3
Subject: Zoning change ID 2428002,2428163,2428161,2428157
Date: Monday, January 30, 2023 2:23:56 PM

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Dear Commissioner John Tobia,

I am writing regarding zoning change from BU1, BU2 to a PUD.

I am a resident in neighboring Merritt Ridge. We have lived here for over 40 years.
I am concerned with the amount of traffic this would create on Plumosa St. We would be trapped in our neighborhood. At certain times of the day it is already difficult to come and go from both the Belaire and Merritt Ridge neighborhoods. This rezoning would only add to traffic. This zoning change would add to amount of kids going to and from schools. I fear that traffic would be cutting thru our neighborhoods.

My husband and I walk a couple of miles everyday at The Veterans Memorial Park. It is such a beautiful park to walk. I am concerned about these precious wetlands that would be effected by this zoning change.

Thank you for your time in listening to my concerns. I hope you will support our neighborhoods by voting against this zoning change

Thank you

Laura Ficker
479 Falmouth Ave (Merritt Ridge)
Merritt Island, FL 32952

3214531681

Sent from Yahoo Mail for iPad

Sent from Yahoo Mail for iPad

Objection
22Z00062
Project Zenith

From: Mike Yetman
To: Commissioner, D2
Cc: Commissioner, D1; Commissioner, D3; d4commissioner@brevardfl.gov; Commissioner, D5
Subject: Zoning Change Issue
Date: Thursday, January 26, 2023 11:42:40 AM

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Re: Parcel ID #'s 2428002, 2428163, 2428161, 2428157

Commissioner Goodson… (Commissioner Pritchett, Commissioner Tobia, Commissioner Feltner, Commissioner Zonka)

First of all welcome aboard to the Brevard Commissioner seat, as a registered voter in your district I will say that I am encouraged to have someone with your passion for the area on board.

I imagine by now you are aware of the proposed 370 unit multi family apartment complex in Merritt Island that is at issue.

#1. I feel as though the zoning change was pushed through without the proper procedures and safeguards to the public knowledge. Particularly with the improper signage at the site and wrong place, date and time notification of the Zoning meeting.

#2. With this approximately 5 acre area of partial wetland being in an already damaged drainage problem area for residents nearby, I feel that beyond the infrastructure problem there will be a significant issue with water run off. The lagoons are already at risk without adding to the problem.

#3. There seems to be a shell game going on as to the owners and as to the origin of the financial backers of this project. Just where is the money coming to finance this project?

I AM AGAINST THIS PROJECT MOVING FORWARD AND I WILL LOOK FORWARD TO SEEING YOU AND THE ALL COMMISSIONERS AT THE FEB 2 MEETING IN VIERA.

Mike Yetman
(321) 474-2732
Mikeyetmansells321@gmail.com

Objection
22Z00062
Project Zenith

From: CURTIS HERRIN
To: Commissioner, D1; Commissioner, D2; Commissioner, D3; Commissioner, D4; Commissioner, D5
Subject: Zoning Change
Date: Tuesday, January 31, 2023 7:01:47 PM

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

I am OPPOSED to the zoning change from B-1 & B-2 to a PUD of parcel ID #'s 2428002, 2528163, 2428161 & 2428157.

This will cause more traffic issues with ingress & egress. This is also zoned as wetland. Those that live here know of the poor drainage during the rainy season even without a tropical storm.

Thank you for your time.

Curtis Herrin

BREVARD COUNTY BOARD OF COUNTY COMMISSIONERS
COMMISSIONER JOHN TOBIA, DISTRICT 3

2539 Palm Bay Rd NE, Suite 4
Palm Bay, FL 32905
www.Brevardfl.gov

Phone: (321) 633-2075
Fax: (321) 633-2196
John.Tobia@Brevardfl.gov

January 31, 2023

To: Jennifer Jones
From: John Tobia, Brevard County Commissioner, District 3
Re: Phone Disclosure

Ms. Jones,

Regarding the upcoming agenda item H.8 on the Brevard County Zoning meeting on February 2, 2023, please be advised in advance that I spoke with the following party via telephone on January 31, 2023.

Kim Rezanka, Esq.

The phone call lasted approximately ten minutes, during which the above individual provided information regarding the item.

Sincerely,

John Tobia
County Commissioner, District 3

Brevard COUNTY
BOARD OF COUNTY COMMISSIONERS

H.8.

District 2 Disclosures
2/2/2023 BOCC Zoning Meeting

F.1. Approval, Re: Extension of 60 days from the 120-Day Requirement to Record a Binding Development Plan in the Public Records. (District 2)

- On 1/23/2023, Commissioner Goodson discussed this item with Kim Rezanka, who advocated for the extension

H.8. NDA Merritt Project Zenith, LLC; and SES Merritt Project Zenith, LLC (Ross Abramson / Kim Rezanka) request a change of zoning classification from BU-1 and BU-2 with two existing BDP's, to PUD and removal of two existing BDP's. (22Z00062) (Tax Accounts 2428002, 2428157, 2428161, & 2428163) (District 2)

- On 1/15/2023, Laurie Savas emailed her concerns and is hesitant about this project
- On 1/18/2023, received emails from the following:
  - Daniel Snyder and Christiana Sgarbossa opposing the project as proposed:
  - Laurie Savas expressing her concerns and is hesitant about this project
- On 1/23/2023:
  - Received email from Chris Wallace opposing the project as proposed
  - Commissioner Goodson met with Kim Rezanka, who represents the applicant
- Week of January 23, 2023, Commissioner Goodson spoke with Robin Fisher who expressed support for the project on behalf of the applicant
- On 1/24/2023, received email from Maureen and Larry Fallon opposing the project as proposed
- On 1/25/2023, received emails from the following with opposition to the project as proposed:
  - Carol Waxman
  - Sebastian Perin
  - Carol Ball
- On 1/26/2023, received emails from the following with opposition to the project as proposed:
  - Mike Yetman
  - Carol Waxman
  - Colleen Pierson
- On 1/30/2023, received emails from the following with opposition to the project as proposed:
  - Brian Bell
  - Laura Ficker
- On 1/31/2023, received email from Curtis Herrin opposing the project as proposed

Petition Against Land Rezoning to build New Luxury Multi- Family Community

We, the residents of the Bel Aire & Merritt Ridge neighborhood and the surrounding properties are signing this petition in STRONG opposition to the rezoning of the property next to/including: Launch CU, Space Coast CU, the old Skate Park & the old Air Soft place, Sir Walters & the wetlands along S. Plumosa St. & Fortenberry Rd. From BU- 1 & BU-2 to PUD (high or highest density residential) for the purpose of constructing multiple apartment building to allow for 370 multi-family units with a clubhouse & parking on the 15.11 acres. We oppose any & all rezoning of this property as it will degrade our established way of life including ingress & egress of our neighborhoods. Parcel ID's 2428002, 2428163, 2428161 & 2428157. This cannot support the traffic or drainage issues that come along with the new construction of this type. We, the undersigned, DO NOT want this by our neighborhoods.

Full Name	Signature	Street Address	Email Address
Christopher Wallace		340 Antigua Dr MI 32952	C.Wallace321@Yahoo
Stacie Wallace	Stacie Wallace	340 Antigua Dr, MI, FL 32952	Wackedoutteacher@rocketmail.com
RODNEY JENKINS	Rodney Jenkins	255 BEL AIRE DR. S. MERRITT ISLAND 32952	jenkinsrodney38@yahoo.com
TAMMY M. JENKINS	Tammy M. Jenkins	255 BEL AIRE DR. S MERRITT ISLAND 32952 FL	
NANCY L. ZALOKAR	Nancy Zalokar	765 BEL AIRE DR. MERRITT ISLAND FL 32952	Ndunwood@aol.com
ROBERT M. ZALOKAR	Robert M. Zalokar	265 BEL AIRE DR MERRITT ISLAND 32952	RZALOKAR@aol.com
Daniel Snyder		285 Bel Aire Dr. South MI FL 32952	
Janet Brubaker	Janet Brubaker	335 Bel Aire Dr S. Merritt Is	Janetbrow2@aol.com
Greg Wiedeman	Greg Wieder	345 Bel Aire Dr. S Merritt Island	
Jade Kirven	Jade	345 Bel Aire Dr. S. Merritt 32952	
Cory Vitt		355 Bel Aire Dr S	critt@gmail.com
DON BRICKER	Don Bricker	365 Bel-Aire Dr S MI	dpbrickerJ@gmail.com
Gavin Craig	Gavin Craig	380 Bel Aire Dr S MI	womakerselves@yahoo.com
Tim Kuehn		360 Bel Aire Dr. S.	
Kelli Klinger	Kelli Klinger	280 Bel Aire DS.	KellihKlinger@gmail.com
Beau Williams		260 Bel Aire Dr	Wbeau545@gmail.com
Jackie Braga	Jackie Braga	250 Bel Aire Dr.	
Robert Braga	Robert Braga	250 Bel Aire Dr.	
Brent Griffith		35 Antigua Drive Dr.	

Full Name	Signature	Street Address	Email Address
Brian Bell		220 Andros Dr MI	
Mindy Robbins		" " "	buddybell001@gmail
Theresa Miles		1498 Stafford Ave MI	Theresamiles1@gmail.com
Bonnie Emerson		1498 Stafford Ave MI	bonsaidonna@yahoo
Tish Henderson	Tish Henderson	285 Andros Dr MI	ldh.artist@gmail.com
Brendan Henderson	Brendan Henderson	285 Andros Dr MI	ba.henderson544@gmail.com
Chris Roop		130 Barbados DR MI 32952	N2O4@yahoo.com
Carol Waxman		524 Orange Ave. MI 32952	
Patricia Walden	Walden	90 Bel Aire Dr.S MI.32952	[redacted]
Robert Buchholz	Robert Buchholz	270 W Lauren CT MI 32952	MSGBucky@GMAIL.com
Jaclynn Buchholz	Jaclynn Buchholz	"	JACYHAWK@MSN.com
Colleen Pierson	Colleen Pierson	140 Bel Aire Dr. S. MI 32952	Cpier38620@aol.com
Steven B. Walden	Walden	90 Bel Aire Dr. S. M.I. 32952	
Jason Nordbeck		285 W. Lauren Ct MI 32952	weedhabit@yahoo.com
Melanie Griffith	Melanie Griffith	315 Antigua Dr. MI 32952	mgriffith_5@aol.com
Mary Calloon	MS Calloon	315 Bahama Dr MI 32952	SZBILBO@gmail.com
Grace Wallace		340 Antigua Dr MI 32952	[redacted]
Karen Mills	Karen Mills	110 Bel Aire Dr. MI 32952	
Bryan Mills		110 Bel Aire Dr S. MI 32952	mrbmills43@outlook.com
Tamara Timmons		275 Antigua Dr., MI 32952	
Tyler Timmons		275 Antigua Dr. MI FL 32952	
David Weiler	David Weiler	479 Kennwood Ave MI 32952	David.weiler54@gmail
Daniel Kelley	Daniel C Kelley	140 Carib Dr. MI. 32952	Kelleydan24@yahoo.com
Philip Cohen		420 S Plumosa St MI 32953	PSethCohen@Gmail.com
RIAN BUSSE		280 CARIB DR M.I. FL 32952	Rianbus@yahoo.com
RACHEL KELLY		280 CARIB DR, M.I., FL, 32952	YEAHITSOMMM@yahoo.com

Full Name	Signature	Street Address	Email Address
Faith Wallace	Faith Wallace	340 Antigua Dr. MI, FL. 32952	Fayjitty1@gmail.com
Connie Wallace	Connie Wallace	330 Bel Aire Dr.S MI, FL 32952	
FRANK VIGNALI		320 ANTIGUA DR MI FL 32952	FAVIGNALI@HOTMAIL.com
Leanne Weston		2600 Bimini Dr MI, FL 32952	LeanneWes34@hotmail.com
John Weston		2600 Bimini Dr MI, FL 32952	
Lauren Scott		275 East lauren Ct MI, FL 32952	
Ryan Jordan		275 E Lauren Ct, MI, FL 32952	ryan.jordan4@gmail.com
Maurice Boudreau		1445 Quince Ave., MI, FL 32952	mjb@ppob.com
Lisa Ruckman		1348 Sanibel Ln 32952	lisa.ruckman@yahoo.com
Aili Melton		1760 Randall Ave, MI 32952	aili.melton2@gmail.com
Dan Johnson		1740 Shaw Dr. MI 32952	
SEBASTIAN PERRIN		1745 PELICAN Dr, MI 32952	SJperrin@cfl.rr.com
Tom Lippert		600 MILTON R " " "	
J. LOREN FREUND		2615 PALM LAKE RD MI 32952	LONFREUND@GMAIL.COM
Lynne Freund		2615 Palm Lake Dr MI 32952	lynnefreund@gmail.com
Curtis Herrin		1650 Neptune Dr. 32952	PJCyET47@gmail.com
Rick E. Brown		2130 Porpoise St. MI 32952	rickebrown67@gmail.com
Jack P. Keifenheim		1790 Manatee Court, MI 32952	jack.keifenheim@gmail.com
Laurie Yetman		1815 Porpoise St MI 32952	Lauriyetman@gmail.com
Michael Yetman		1815 Porpoise St MI 32952	mikeyetmansells321@gmail.com
Katherine Wise		2215 Capeview ST. MI 32952	KateWise@BellSouth.Net
Robert Wise		2215 Capeview St. MI 32952	bobwise32952@bellsouth.net
NANCY CAMPBELL		1550 W. CORAL CT MI 32952	NANCY@CAMPBELLREALTY.com
CHRIS McGRAW		1555 W CORAL CT MI 32952	cahmcgraw@ATT.Net
RICHARD CRIPPS		820 Seashell Dr., MI 32952	MARSCRIPPS@GMAIL.COM
ANNETTE CRIPPS		" " " "	

Full Name	Signature	Street Address	Email Address
Megan Robert		250 Bimini Dr	mhalligan16e@gmail.com
Lenard Robert		250 Bimini Dr	lvijayrobert@gmail.com
Dale K. Merritt		255 Bimini Dr.	dkmerritt@gmail.com
Jamie Lamar Keene		255 Bimini Dr.	jamiehannah430@gmail.com
WAYNE + PAM BOWMAN		265 BIMINI DR	MCDANIEL CHABOT @ YAHOO.COM
Jean Agramonte		230 E Lauren Ct	
Roberto Agramonte		230 E Lauren Ct	

(B)

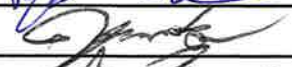
Full Name	Signature	Street Address	Email Address
Greg Henderson		265 Andros Drive	gthenderson@gmail.com

Penn Place

Petition Against Land Rezoning to build New Luxury Multi- Family Community

We, the residents of the Bel Aire & Merritt Ridge neighborhood and the surrounding properties are signing this petition in STRONG opposition to the rezoning of the property next to/including: Launch CU, Space Coast CU, the old Skate Park & the old Air Soft place, Sir Walters & the wetlands along S. Plumosa St. & Fortenberry Rd. From BU- 1 & BU-2 to PUD (high or highest density residential) for the purpose of constructing multiple apartment building to allow for 370 multi-family units with a clubhouse & parking on the 15.11 acres. We oppose any & all rezoning of this property as it will degrade our established way of life including ingress & egress of our neighborhoods. Parcel ID's 2428002, 2428163, 2428161 & 2428157. This cannot support the traffic or drainage issues that come along with the new construction of this type. We, the undersigned, DO NOT want this by our neighborhoods.

Full Name	Signature	Street Address	Email Address
CAROL BALL	Carol Ball	516 S PLUMOSA ST #15 Merritt Island	cball1@cfl.rr.com
SARA DEVLIN	Sara Devlin	516 S. Plumosa St #13 Merritt Island	SDevlin4@cfl.rr.com
ROBERT McKEEVER		516 S PLUMOSA ST #3 MI FL	ROBEMCKEEV@aol.com
Santiago Gonzalez		516 S Plumosa St #21 32953	Santiago9th@gmail.com
Jacqueline Bongers	Jacqueline Bongers	590 S Plumosa St 32952	Collinsahospital@yahoo.com
Anthony Lombardo		590 S Plumosa st 32952	Hombardo0015@outlook.com
Hank Bonger	Hank Bonger	590 S Plumosa st 32952	Collins Animal Hospital@yahoo.com
Anne Tagwyn O'Kane		516 S Plumosa St 32952	@cfl.rr.com
Cheryl Schwartz		516 S PLUMOSA ST #24 32952	MAEBAUTO240@HOTMAIL.COM
ROBERT BALDREE		516 S. PLUMOSA ST #4 MI	PAPA34320000@YAHOO.COM
James Moffitt		516 S Plumosa St #16 32952	james.e.moffitt@gmail.com
CARRIE BOLEN		516 PLUMOSA St #1 32952	
Cathy Polnow		516 Plumosa St #7 32952	
Gina Passini		516 S. Plumosa St. #6 32952	Passinigina@gmail.com
Stephanie Fite		516 S. Plumosa St. #18 32952	sfite2014@gmail.com

Full Name	Signature	Street Address	Email Address
MARIA DE FRANCESCO		230 ANDROS, DR M.I. FL 32952	MLDF0924@Live.Com.
RAFFAELE DE FRANCESCO		11	11
Joseph George		102 S. Mantor Ave. Titusville	
ANN GEORGE		102 S. MANTOR AVE 11	
Christopher D. Wilson		527 Palm Ave Merritt Island, FL	cdwilson23@gmail.com

4.8.

OWNERS (NOTE: FOLLOWING WILL BE OWNERS AT TIME OF FORMAL FILING):

NDA MERRITT PROJECT ZENITH, LLC
2 S. UNIVERSITY DRIVE, SUITE 321
PLANTATION, FL 33324

SES MERRITT PROJECT ZENITH, LLC
2 S. UNIVERSITY DRIVE, SUITE 321
PLANTATION, FL 33324

PARCEL TAX NUMBERS:
PARCEL 1: 24-36-36-00-518
PARCEL 2: 24-36-36-00-549
PARCEL 3: 24-36-36-00-547
PARCEL 4: 24-36-36-00-543

EXISTING ZONING - BU-1 AND BU-2
PROPOSED ZONING - PLANNED UNIT DEVELOPMENT (PUD)
OVERALL ACREAGE = 15.1 AC
DWELLING UNITS = 370 DU
COMMON OPEN SPACE = 4.45 AC

DEVELOPMENT REQUIREMENTS:

	REQ./ALLOWED	PROVIDED
MIN. LOT SIZE	10,000 SF	657,820 SF
FRONT SETBACK (NORTH)	25 FT	25 FT
REAR SETBACK (SOUTH)	99 FT	95'-0" FT
SIDE SETBACK (NORTHWEST)	25 FT	45'-8" FT
OPEN SPACE TOTALS		
Common open space (includes active recreational open space)	5.5 ac (36.25%)	4.45 ac
Active recreation open space: 0.5 ac x 100 dus =	1.85 ac	1.19 ac
OPEN SPACE BREAKDOWN		
Wetland Area #1 (Common) =		2.01 ac
Wetland Area #2 (Common) =		1.25 ac
Amenity Area (Active) =		0.12 ac
Park (Active) =		0.15 ac
Green Area #1 =		0.24 ac
Green Area #2 =		0.21 ac
Green Area #3 =		0.47 ac
BUILDING SEPARATION	25-30 FT	30'-0" FT
MIN. FLOOR AREA 1 BR	500 SF	741 SF
2 BR	750 SF	907 SF
3 BR	850 SF	1,290 SF
BUILDING HEIGHT	35'-0"	60FT

WAIVER TABLE

REQUEST TYPE	REQUEST	CODE SECTION	REQUIRED	PROVIDED
Waiver #1	A waiver for a 1.1 ac reduction on the open space requirement	Municode Brevard County, Chapter 62, Article VI, Division 4, Subdivision V, Sec. 62-1446(c)	5.50 ac	4.45 ac
Waiver #2	A waiver to allow 1 main access point from Harbor Woods Boulevard and 1 secondary access point from Fortenberry Road	Municode Brevard County, Chapter 62, Article VII, Division 4, Sec. 62-2555(a)(1)	3	2

SITE AREA TABULATIONS

Type	Area (SF.)	Area (AC.)	Percent Overall
Buildings Type II Footprint (3 bldg)	47,825 sf	2.097 ac	7.3%
Buildings Type I Footprint (2 bldg)	35,220 sf	.800 ac	5.3%
Clubhouse Footprint	5,100 sf	.117 ac	0.8%
Trash Compactor Footprint	609 sf	.013 ac	0.1%
Asphalt Pavement	228,581 sf	5.230 ac	34.6%
Open space	193,843 sf	4.450 ac	29.3%
Landscape islands+in ground bldg	147,668 sf	3.39 ac	22.5%
Overall Site	658,443 sf	15.1 ac	100.0%

FLOOR AREA TABULATIONS

Description	GFA (SF)	GFA (AC)
Buildings Type II	228,315 sf	5.48 ac
Buildings Type I	176,100 sf	4.04 ac
Clubhouse	5,500 sf	.117 ac
Trash Compactor Footprint	609 sf	.013 ac
TOTAL	424,324 sf	9.65 ac

DEVELOPMENT SUMMARY - UNIT MIX

Unit Types	Gross Area	Building Types		Total Units	% of Totals	target mix	LEASABLE AREA (NRSF)
		Type II(Sct)	Type II(S st)				Multifamily
1BD							
A2	744 sf	20	30	120 units	32%	43%	89,280 sf
A2	741 sf	10	10	30 units	14%		37,050 sf
Sub-total		30	40	170 units	46%		126,330 sf
2BD							
B2	900 sf	5	0	13 units	4%	42%	13,500 sf
B2	1,023 sf	20	30	120 units	32%		128,760 sf
B3	1,183 sf	5	0	15 units	4%		17,775 sf
Sub-total		30	30	150 units	41%		160,035 sf
3BD							
B1	1,333 sf	10	30	50 units	14%	11%	66,650 sf
Sub-total		10	30	50 units	14%		66,650 sf
# of Units/Bldg		70 units	80 units	370 units			
# of Bldgs		3 bldgs	3 bldgs	5 bldgs			
Total Apart. Units		210 units	160 units	370 units	100%	100%	353,015 sf
						Gross Average Unit Area	954 sf

OFF-STREET PARKING

	Multifamily	# of units or SF	# Spaces
Required	All Units @ 1.75 sp/du	370 units	648 sp
	Clubhouse @ 1 sp per 200 SF	8,500 sf	43 sp
	Total Required		691 sp
Provided	Surface (Standard)		641 sp
	Clubhouse		10 sp
	Surface (ADA)		13 sp
	Total Provided		664 sp

Note: We provided ADA spaces meet ADA Standards for Accessible Design 4.1.2 (5)

1.79 sp/unit

NOTE: SUBJECT TO ALTERNATIVE PARKING STUDY

GENERAL STATEMENT

THIS PRELIMINARY DEVELOPMENT PLAN IS SUBMITTED FOR APPROVAL OF A 370 UNIT APARTMENT COMPLEX CONTAINING 15 +/- ACRES AND CONSIST OF FIVE STORY BUILDINGS, PARKING AREAS AND A RECREATIONAL COMPLEX FOR THE RESIDENTS.

THE DEVELOPMENT PROVIDES A TOTAL OPEN SPACE OF 4.45 AC. THAT INCLUDES COMMON OPEN SPACE AND RECREATIONAL OPEN SPACE.

THE WETLAND PRESERVES WILL BE MAINTAINED AND ARE THE CENTER OF THE AESTHETICS OF THE PROJECT. THE PROPERTY IS PART OF THE FORTENBERRY REGIONAL STORMWATER MANAGEMENT SYSTEM AND IS TRIBUTARY TO ALUM POND SOUTH OF THE PROPERTY.

WATER AND SANITARY SEWER SERVICE IS AVAILABLE ON-SITE AND IS MAINTAINED BY THE CITY OF COCOA AND BREVARD COUNTY.

ACCESS TO THE SITE WILL BE DIRECTED TO HARBOR WOODS BOULEVARD ALONG THE EAST SIDE OF THE PROPERTY.

GENERAL NOTES

1. THIS PLAN IS PRELIMINARY ONLY AND IS SUBJECT TO FINAL DESIGN AND PERMITTING.
2. ADDITIONAL DATA AND SUPPORTING INFORMATION IS INCLUDED ON THE ATTACHED PUD NARRATIVE INCLUDED WITH THIS PDP.
3. **MAINTENANCE SHALL BE RETAINED BY** OWNER, CONTROL AND MAINTENANCE OF COMMON OPEN SPACE AND FACILITIES BY THE DEVELOPER.

LEGAL DESCRIPTION:

PARCEL 1
A PORTION OF SECTION 06, TOWNSHIP 24 SOUTH, RANGE 36 EAST, BREVARD COUNTY, FLORIDA BEING A PORTION OF THE LANDS DESCRIBED IN OFFICIAL RECORDS BOOK 1450, PAGE 216, OFFICIAL RECORDS BOOK 2304, PAGE 896, OFFICIAL RECORDS BOOK 1187, PAGE 932, AND OFFICIAL RECORDS BOOK 7302, PAGES 998 AND 914, ALL OF THE PUBLIC RECORDS OF BREVARD COUNTY FLORIDA, AS FOLLOWS

COMMENCE AT THE SOUTHWEST CORNER OF SAID SECTION 36; TOWNSHIP 24 SOUTH, RANGE 36 EAST, THENCE RUN NORTH 00°33'33" WEST, ALONG THE WEST LINE OF SAID SECTION 36 FOR A DISTANCE OF 1312.75 FEET TO A POINT ON THE SOUTH LINE OF THE NORTH 14.00 FEET OF THE SOUTHWEST 1/ OF THE SOUTHWEST 1/ OF SAID SECTION 36 AND THE SOUTHWEST CORNER OF SAID OFFICIAL RECORDS BOOK 1450, PAGE 216; THENCE RUN NORTH 89°09'48" EAST, ALONG SAID SOUTH LINE FOR A DISTANCE OF 25.00 FEET TO THE POINT OF BEGINNING. THENCE RUN NORTH 00°33'33" WEST, A DISTANCE OF 25.00 FEET FROM AND PARALLEL TO THE WEST LINE OF SAID SECTION 36 FOR A DISTANCE OF 314.00 FEET TO A POINT ON THE NORTH LINE OF SAID OFFICIAL RECORDS BOOK 150, PAGE 218, AND THE NORTH LINE OF THE SOUTH 329.00 FEET OF THE NORTHWEST 1/ OF THE SOUTHWEST 1/ OF SAID SECTION 36; THENCE RUN NORTH 89°09'48" EAST, ALONG SAID NORTH LINE FOR A DISTANCE OF 833.48 FEET; THENCE RUN NORTH 21°08'04" EAST, ALONG THE NORTHWESTERLY LINE OF SAID OFFICIAL RECORDS BOOK 1450, PAGE 216, FOR A DISTANCE OF 254.11 FEET TO A POINT ON THE SOUTHERLY RIGHT-OF-WAY OF FORTENBERRY AVENUE, A 80.00 FOOT RIGHT-OF-WAY, AND THE NORTHERLY LINE OF SAID OFFICIAL RECORDS BOOK 1450, PAGE 216, SAID POINT ALSO BEING ON A CURVE TO THE LEFT HAVING A RADIUS OF 607.28 FEET AND A RADIAL BEARING OF NOR 01°35'04" EAST; THENCE RUN SOUTHEASTERLY ALONG SAID RIGHT-OF-WAY AND ARC OF CURVE FOR A DISTANCE OF 173.05 FEET, THROUGH A CENTRAL ANGLE OF 16°19'37"; THENCE RUN SOUTH 12°45'26" WEST, FOR A DISTANCE OF 85.01 FEET; THENCE RUN SOUTH 00°34'01" EAST, 15 FEET FROM AND PARALLEL TO THE WEST LINE OF THE EAST 25.00 FEET OF THE SOUTHWEST 1/ OF SAID SECTION 36, FOR A DISTANCE OF 369.55 FEET; THENCE RUN SOUTH 21°12'06" WEST, FOR A DISTANCE OF 30.81 FEET TO A POINT ON THE SOUTH LINE OF SAID OFFICIAL RECORDS BOOK 2304, PAGE 896 AND THE SOUTH LINE OF SAID NORTH 14.00 FEET OF THE SOUTHWEST 1/OF THE SOUTHWEST 1/ OF SECTION 36; THENCE RUN SOUTH 89°09'48" WEST, ALONG SAID SOUTH LINE 14.00 FEET FROM AND PARALLEL TO THE NORTH LINE OF THE SOUTHWEST 1/ OF THE SOUTHWEST 1/ OF SAID SECTION 36 FOR A DISTANCE OF 495.10 FEET TO THE SOUTH LINE OF SAID OFFICIAL RECORDS BOOK 1450 PAGE 216; THENCE CONTINUE SOUTH 89°09'48" WEST, ALONG THE SOUTH LINE OF OFFICIAL RECORDS BOOK 1450 PAGE 216 AND THE SOUTH LINE OF SAID NORTH 14.00 FEET OF THE SOUTHWEST 1/ OF THE SOUTHWEST 1/ OF SECTION 36, FOR A DISTANCE OF 476.00 FEET TO THE POINT OF BEGINNING

PARCEL 2
A PARCEL OF LAND LYING IN SECTION 36, TOWNSHIP 24 SOUTH, RANGE 36 EAST, TALLAHASSEE BASE MERIDIAN, BREVARD COUNTY, FLORIDA, MORE FULLY DESCRIBED AS FOLLOWS:
COMMENCE AT THE INTERSECTION OF THE SOUTHERLY RIGHT-OF-WAY LINE OF FORTENBERRY ROAD AND THE EAST RIGHT-OF-WAY LINE OF PLUMOSA AVENUE; THENCE RUN SOUTH 00°34'14" EAST, ALONG SAID EASTERLY RIGHT-OF-WAY LINE, A DISTANCE OF 917.88 FEET; THENCE RUN NORTH 89°09'02" EAST, A DISTANCE OF 809.67 FEET; THENCE RUN NORTH 15°54'22" EAST, A DISTANCE OF 199.86 FEET TO THE POINT OF BEGINNING OF THIS DESCRIPTION; THENCE RUN NORTH 74°05'38" WEST, A DISTANCE OF 22.00 FEET; THENCE RUN NORTH 15°54'22" EAST, A DISTANCE OF 297.97 FEET TO THE POINT ON THE AFOREMENTIONED SOUTH RIGHT-OF-WAY LINE OF FORTENBERRY ROAD; THENCE RUN SOUTH 43°32'22" EAST, ALONG SAID SOUTHERLY RIGHT-OF-WAY LINE, A DISTANCE OF 25.05 FEET; THENCE RUN SOUTH 15°54'22" WEST, A DISTANCE OF 250.00 FEET TO THE POINT OF BEGINNING OF THIS DESCRIPTION CONTAINING 0.13 ACRES, MORE OR LESS, AND BEING SUBJECT TO ANY EASEMENTS AND/OR RIGHT-OF-WAY OF RECORD

PARCEL 3
A PARCEL OF LAND LYING IN SECTION 36, TOWNSHIP 24 SOUTH, RANGE 36 EAST, BREVARD COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:
COMMENCE AT THE INTERSECTION OF THE SOUTHERLY RIGHT-OF-WAY LINE OF FORTENBERRY ROAD AND THE EASTERLY RIGHT-OF-WAY LINE OF PLUMOSA AVENUE; THENCE RUN SOUTH 00°34'14" EAST, ALONG SAID EASTERLY RIGHT-OF-WAY LINE, A DISTANCE OF 917.88 FEET; THENCE RUN NORTH 89°09'02" EAST, A DISTANCE OF 338.14 FEET TO THE POINT OF BEGINNING OF THE LANDS HEREON DESCRIBED; THENCE RUN NORTH 15°54'22" EAST, A DISTANCE OF 650.19 FEET TO A POINT ON SAID SOUTHERLY RIGHT-OF-WAY LINE OF FORTENBERRY ROAD; THENCE RUN SOUTH 43°32'22" EAST, ALONG SAID SOUTHERLY RIGHT-OF-WAY LINE, A DISTANCE OF 318.25 FEET; THENCE RUN SOUTH 15°54'22" WEST, A DISTANCE OF 297.97 FEET; THENCE RUN SOUTH 74°05'38" EAST, A DISTANCE OF 22.00 FEET; THENCE RUN SOUTH 15°54'22" WEST, A DISTANCE OF 189.89 FEET; THENCE RUN SOUTH 89°09'02" WEST, A DISTANCE OF 312.26 FEET TO THE POINT OF BEGINNING

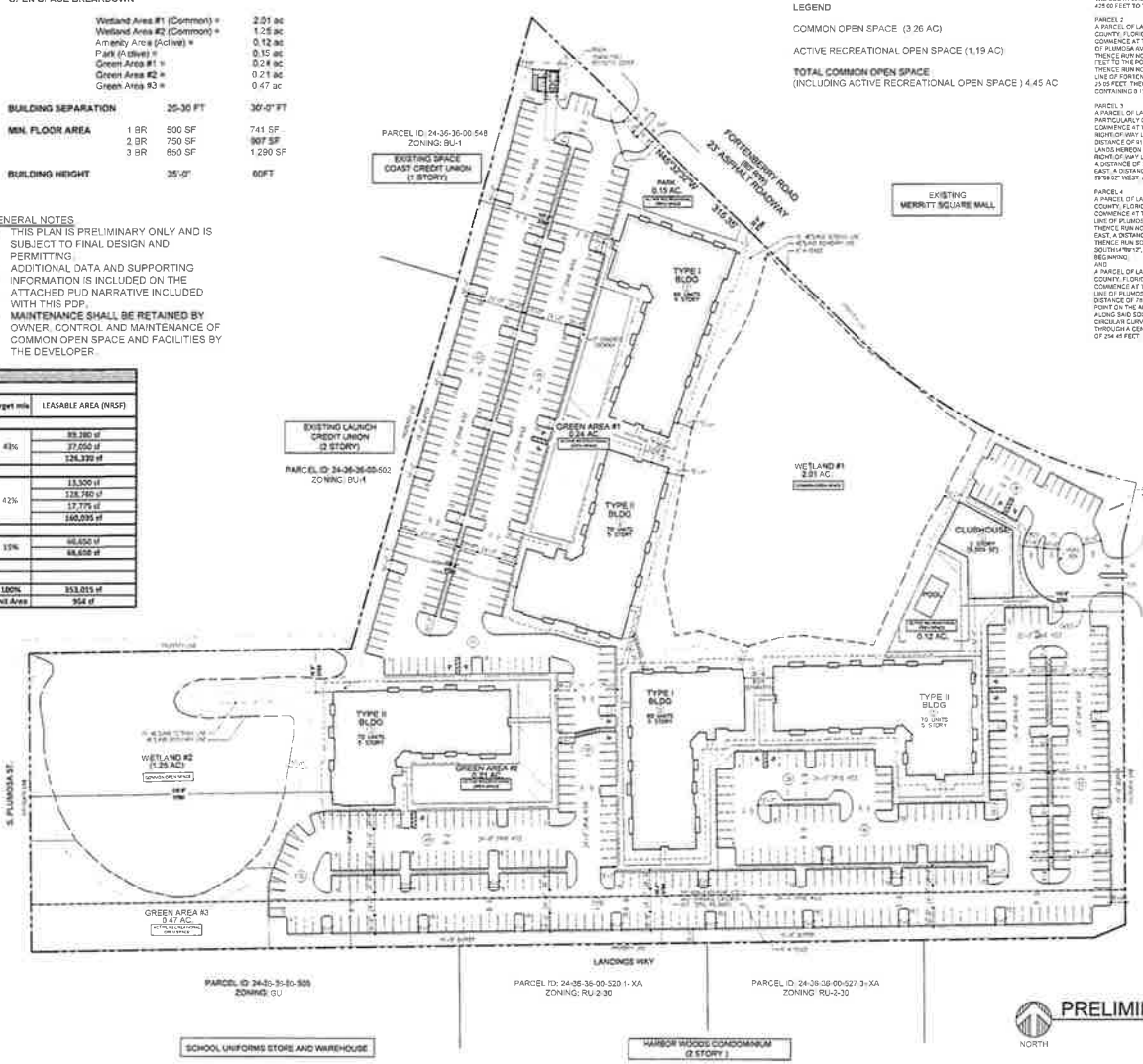
PARCEL 4
A PARCEL OF LAND LYING IN SECTION 36, TOWNSHIP 24 SOUTH, RANGE 36 EAST, TALLAHASSEE BASE MERIDIAN, BREVARD COUNTY, FLORIDA, MORE FULLY DESCRIBED AS FOLLOWS:
COMMENCE AT THE INTERSECTION OF THE SOUTHERLY RIGHT-OF-WAY LINE OF FORTENBERRY ROAD AND THE EASTERLY RIGHT-OF-WAY LINE OF PLUMOSA AVENUE; THENCE RUN SOUTH 00°34'14" EAST, ALONG SAID EASTERLY RIGHT-OF-WAY LINE, A DISTANCE OF 917.88 FEET; THENCE RUN NORTH 89°09'02" EAST, A DISTANCE OF 809.67 FEET TO THE POINT OF BEGINNING; THENCE RUN NORTH 15°54'22" EAST, A DISTANCE OF 450.00 FEET TO A POINT ON THE AFOREMENTIONED SOUTH RIGHT-OF-WAY LINE OF FORTENBERRY ROAD; THENCE RUN SOUTH 43°32'22" EAST, ALONG SAID SOUTH RIGHT-OF-WAY LINE, A DISTANCE OF 129.96 FEET; THENCE RUN SOUTH 41°59'12", A DISTANCE OF 340.28 FEET; THENCE RUN SOUTH 89°09'02" WEST, A DISTANCE OF 130.00 FEET TO THE POINT OF BEGINNING
AND
A PARCEL OF LAND LYING IN SECTION 25, TOWNSHIP 24 SOUTH, RANGE 36 EAST, TALLAHASSEE BASE MERIDIAN, BREVARD COUNTY, FLORIDA, MORE FULLY DESCRIBED AS FOLLOWS:
COMMENCE AT THE INTERSECTION OF THE SOUTH RIGHT-OF-WAY LINE OF FORTENBERRY ROAD AND THE EAST RIGHT-OF-WAY LINE OF PLUMOSA AVENUE; THENCE RUN SOUTH 00°34'14" A DISTANCE OF 917.88 FEET, THENCE RUN NORTH 89°09'02" EAST, A DISTANCE OF 789.67 FEET TO THE POINT OF BEGINNING; THENCE RUN NORTH 14°59'12" EAST, A DISTANCE OF 340.28 FEET TO A POINT ON THE AFOREMENTIONED SOUTH RIGHT-OF-WAY LINE OF FORTENBERRY ROAD; THENCE RUN SOUTH 45°32'35" EAST, ALONG SAID SOUTH RIGHT-OF-WAY LINE A DISTANCE OF 0.02 FEET TO THE POINT OF CURVATURE OF A 607.28 FOOT RADIUS CIRCULAR CURVE CONCAVE TO THE NORTHEAST; THENCE ALONG AN ARC OF SAID CURVE AND SAID SOUTH RIGHT-OF-WAY LINE THROUGH A CENTRAL ANGLE OF 16°29'37", AN ARC DISTANCE OF 173.19 FEET; THENCE RUN SOUTH 27°16'11" WEST, A DISTANCE OF 234.45 FEET; THENCE RUN SOUTH 89°09'02" WEST, A DISTANCE OF 165.00 FEET TO THE POINT OF BEGINNING

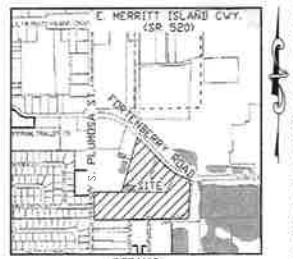
LEGEND

COMMON OPEN SPACE (3.26 AC)

ACTIVE RECREATIONAL OPEN SPACE (1.19 AC)

TOTAL COMMON OPEN SPACE
(INCLUDING ACTIVE RECREATIONAL OPEN SPACE) 4.45 AC





PRELIMINARY DEVELOPMENT PLAN
SCALE: 1"=60'-0"
PROGRESS 2023.01.16

ARCHITECT:
MSA ARCHITECTS
8950 SW 74th COURT, SUITE 1513
KENDALL, FL 33156
305-273-9911

SURVEYOR:
KIN SURVEY
5220 US-1, SUITE 104
VERO BEACH, FL 32967
866-396-7770

ENGINEER / PLANNER:
LAND PLAN ENGINEERING GROUP, INC.
1475 NW 126 DRIVE
CORAL SPRINGS, FL 33071
954-612-5651

FORTENBERRY ROAD APTS.
MERRITT ISLAND, FLORIDA
FOR
WOODFIELD

MSA ARCHITECTS, INC
AA0000895
8950 SW 74th COURT
SUITE 1513
KENDALL, FL 33156
(305) 273-9911

MSA ARCHITECTS
ARCHITECTURE & PLANNING

PRELIMINARY DEVELOPMENT PLAN

SHEET NUMBER
PDP-1



AERIAL VIEW FACING TOWARDS SOUTHEAST

RENDERING

SCALE: N.T.S

REVISIONS	BY
PROGRESS SET 09/08/2022	

FORTENBERRY ROAD APTS.
NWQ OF FORTENBERRY RD. & I-95
MERRIT ISLAND, FLORIDA
FOR:
WOODFIELD

GEORGE L. MOURIZ
AR0007806

MSA ARCHITECTS, INC.
AAC000895
8950 SW 74th Court
Suite 1913
Miami, Florida 33156
(305) 273-0881

MSA ARCHITECTS
ARCHITECTURE & PLANNING

DRAWN	
DATE	09/08/2022
SCALE	AS SHOWN
JOB NO.	2163.MU
SHEET TITLE	RENDERING
SHEET NUMBER	RE-02



AERIAL VIEW FACING TOWARDS SOUTHWEST

RENDERING

SCALE: N.T.S.

REVISIONS	BY
PROGRESS SET 9/16/2022	

FORTENBERRY ROAD APTS.
LOCATED AT
MERRITT ISLAND, FLORIDA
FOR:
WOODFIELD

GEORGE L. MOURIZ
AR0007806

MSA ARCHITECTS, INC.
AAC000895
8950 SW 74th COURT
SUITE 1801
MIAMI, FLORIDA 33156
(305) 373-8811

MSA ARCHITECTS
ARCHITECTURE & PLANNING

DRAWN	
DATE	09/16/2022
SCALE	AS SHOWN
JOB NO.	2163-PRJ
SHEET TITLE:	RENDERING
SHEET NUMBER:	RE-01

H.8





Account: 2427988 Parcel ID: 24-36-36-00-505
Sale: 11/5/2010 $75,000
BCPAO Market Value: $106,050
Owners: COHEN, PHILIP
Address: 420 S PLUMOSA ST MERRITT ISLAND FL 32952

Zoom | Clear | Details | EagleView | Hide Info

BCPAODana Blickley, CFA, Brevard County Property Appraiser | Instructions | Disclaimer

https://www.bcpao.us/map/?r=2427988

APPENDIX A
Methodology Statement

Kimley»Horn

MEMORANDUM

From: James M. Taylor, P.E.
Kimley-Horn and Associates, Inc.

Date: October 3, 2022

Subject: Traffic Impact Analysis (TIA) Methodology
Merritt Island Apartments

Purpose
The following is a Traffic Impact Analysis (TIA) methodology outline for the above referenced project. The forthcoming TIA will generally conform to the methodology herein and the policies and guidelines of Brevard County.

Project Description
Merritt Island Apartments is a proposed multifamily development located on the south side of Fortenberry Road, west of Harbor Woods Boulevard, and north of Landings Way in Brevard County. A portion of the project property is undeveloped, and the eastern part is an abandoned active recreation facility. The proposed development on the 15.26-acre property is to consist of ±368 multifamily dwelling units. Buildout of the proposed development is anticipated in 2025.

Access to the site will be provided via two (2) full access driveways on Fortenberry Road, shown in the conceptual site plan provided in **Attachment A**.

Study Area
As stated in the Brevard County *Guidelines on Minimum Requirements for Traffic Impact Analyses* (2022), the study area shall be preliminarily established with a radius of 0.5-miles per 100 peak hour trips. As determined in the Trip Generation portion of this memorandum, the proposed development is anticipated to generate 150 peak hour trips; therefore, the preliminary study area will have a radius of 1.0 miles.

All segments within the 1.0-mile radius will be included in the study area. In addition, segments outside of the 1.0-mile radius that are significantly impacted by project trips will be included in the study area as well.

Initially, a significance test was performed for all roadway segments within the 1.0-mile area of influence. Significance was calculated by dividing the portion of total project trips assigned to each roadway segment by the corresponding maximum available volume (MAV) for that segment. A 5.0% significance test was performed for all concurrent

Kimley»Horn

roadway segments and a 1.0% significance test for all roadway segments with concurrency failure within the 1.0-mile study area. Results of this analysis show that no segments inside the 1.0-mile study area are significantly impacted. Therefore, no additional segments were analyzed or included in the study area. **Table 1** summarizes the roadway segment significance test and the study area determination.

The major intersections where project trips are anticipated to complete turning movements within the 1.0-mile study area will be included.

From this analysis, the study area roadway segments and intersections are listed below and displayed on **Figure 1**:

Study Area Roadway Segments

- Fortenberry Rd from S Courtenay Pkwy to S Plumosa St
- Fortenberry Rd from S Plumosa St to S Skyes Creek Pkwy
- Cone Rd from S Tropical Trl to S Courtenay Pkwy
- Cone Rd from S Courtenay Pkwy to S Plumosa St
- N Plumosa St from Merritt Ave to SR 520
- S Plumosa St from SR 520 to Fortenberry Rd
- S Plumosa St from Fortenberry Rd to Cone Rd
- SR 520 from Hubert Humphrey Bridge to Tropical Trl
- SR 520 from Tropical Trl to Courtenay Pkwy
- SR 520 from Courtenay Pkwy to Plaza Entry
- SR 520 from Plaza Entry to Plumosa St
- SR 520 from Plumosa St to Merritt Sq (Mall Entry)
- SR 520 from Merritt Sq (Mall Entry) to Skyes Creek Pkwy
- SR 520 from Skyes Creek Pkwy to Newfound Harbor Dr
- N Skyes Creek Pkwy from N Banana River Dr to Merritt Ave
- N Skyes Creek Pkwy from Merritt Ave to SR 520
- S Skyes Creek Pkwy from SR 520 to Fortenberry Rd
- Merritt Ave from N Tropical Trl to N Courtenay Pkwy
- Merritt Ave from N Courtenay Pkwy to N Plumosa St
- Merritt Ave from N Plumosa St to N Skyes Creek Pkwy
- N Courtenay Pkwy from Needle Blvd to Merritt Ave
- N Courtenay Pkwy from Merritt Ave to SR 520
- S Courtenay Pkwy from SR 520 to Magnolia Ave
- S Courtenay Pkwy from Magnolia Ave to Fortenberry Rd
- S Courtenay Pkwy from Fortenberry Rd to Cone Rd
- S Courtenay Pkwy from Cone Rd to Banana Blvd
- N Tropical Trl from Merritt Ave to SR 520
- S Tropical Trl from SR 520 to Cone Rd

Kimley»Horn

- S Tropical Trl from Cone Rd to Plantation Rd

Study Area Intersections

- SR 520 & Courtenay Pkwy
- SR 520 & Plumosa St
- SR 520 & Skyes Creek Pkwy
- S Courtenay Pkwy & Fortneberry Rd
- S Plumosa St & Fortenberry Rd

Table 1: Study Area Segments

Link ID#	Roadway From	Roadway To	Roadway Attributes [1] Adopted LOS	Number of Lanes	Speed Limit	Max Avail. Volume (MAV)	2021 AADT	Existing V/C Ratio	Daily Project Traffic Total Daily Trips = 1,709 % Project Distribution [2]	Project Trips	% Impact [3]	Included In Study Area [4]
	Fortenberry Rd											
119	Courtenay Pkwy	Plumosa St	E	2	35	15,600	3,900	0.25	20%	342	2.19%	Yes
154	Plumosa St	Skyes Creek Pkwy	E	2	35	15,600	3,900	0.25	69%	1,179	7.56%	Yes
	Cone Rd											
117	Tropical Trl	Courtenay Pkwy	E	2	35	15,600	4,200	0.27	2%	34	0.22%	Yes
115	Courtenay Pkwy	Plumosa St	E	2	35	15,600	4,800	0.31	10%	171	1.10%	Yes
	S Plumosa St											
106	Merritt Ave	SR 520	E	2	25	15,600	5,260	0.34	3%	51	0.33%	Yes
120	SR 520	Fortenberry Rd	E	2	25	15,600	4,160	0.27	39%	667	4.28%	Yes
116	Fortenberry Rd	Cone Rd	E	2	35	15,600	4,820	0.31	11%	188	1.21%	Yes
	SR 520											
101	Bridge	Tropical Trl	D	6	45	59,900	44,030	0.74	34%	581	0.97%	Yes
148	Tropical Trl	Courtenay Pkwy	D	6	45	59,900	37,330	0.62	35%	598	1.00%	Yes
97	Courtenay Pkwy	Plaza ent	D	6	45	62,900	30,030	0.48	35%	598	0.95%	Yes
98	Plaza ent	Plumosa St	D	6	45	62,900	29,680	0.47	35%	598	0.95%	Yes
99	Plumosa St	Mall ent	D	6	45	62,900	28,180	0.45	1%	17	0.03%	Yes
100	Mall ent	Skyes Creek Pkwy	D	6	45	62,900	23,830	0.38	1%	17	0.03%	Yes
149	Skyes Creek Pkwy	Newbound Harbor Dr	D	6	45	62,900	28,480	0.45	22%	376	0.60%	Yes
	Skyes Creek Pkwy											
108	N Banana River Dr	Merritt Ave	D	2	45	17,700	9,680	0.55	6%	103	0.58%	Yes
121	Merritt Ave	SR 520	D	4	45	39,800	10,770	0.27	6%	103	0.26%	Yes
123	SR 520	Fortenberry Rd	E	4	35	33,800	4,050	0.12	28%	479	1.42%	Yes
	Merritt Ave											
153	Tropical Trl	Courtenay Pkwy	E	2	25	15,600	3,240	0.21	0%	0	0.00%	Yes
103	Courtenay Pkwy	Plumosa St	E	4	35	33,800	12,780	0.38	2%	34	0.10%	Yes
110	Plumosa St	Skyes Creek Pkwy	E	4	35	33,800	13,220	0.39	0%	0	0.00%	Yes
	Courtenay Pkwy											
131	Needle Blvd	Merritt Ave	D	4	40	41,790	32,130	0.77	18%	308	0.74%	Yes
130	Merritt Ave	SR 520	D	4	40	41,790	26,150	0.63	19%	325	0.78%	Yes
139	SR 520	Magnolia Ave	E	4	35	33,800	17,860	0.53	19%	325	0.96%	Yes
122	Magnolia Ave	Fortenberry Rd	E	4	35	33,800	16,840	0.50	19%	325	0.96%	Yes
118	Fortenberry Rd	Cone Rd	E	2	35	15,600	13,400	0.86	0%	0	0.00%	Yes
114	Cone Rd	Banana Blvd	E	2	35	15,600	10,970	0.70	7%	120	0.77%	Yes
	Tropical Trail											
147	Merritt Ave	SR 520	E	2	35	15,600	8,100	0.52	1%	17	0.11%	Yes
124	SR 520	Cone Rd	E	2	35	12,480	5,070	0.41	0%	0	0.00%	Yes
126	Cone Rd	Plantation Rd	E	2	35	12,480	6,730	0.54	2%	34	0.27%	Yes

Notes:

1. Data obtained from the Space Coast TPO Traffic Counts Report.

2. Percent project traffic assignment was calculated as the maximum across the segment.

3. Percent impact was calculated as the project traffic divided by the maximum service volume.

4. All segments within a 1.0-mile radius of the project site will be included in the study area. As no segments exceed the 5% impact threshold, no additional analysis is needed.

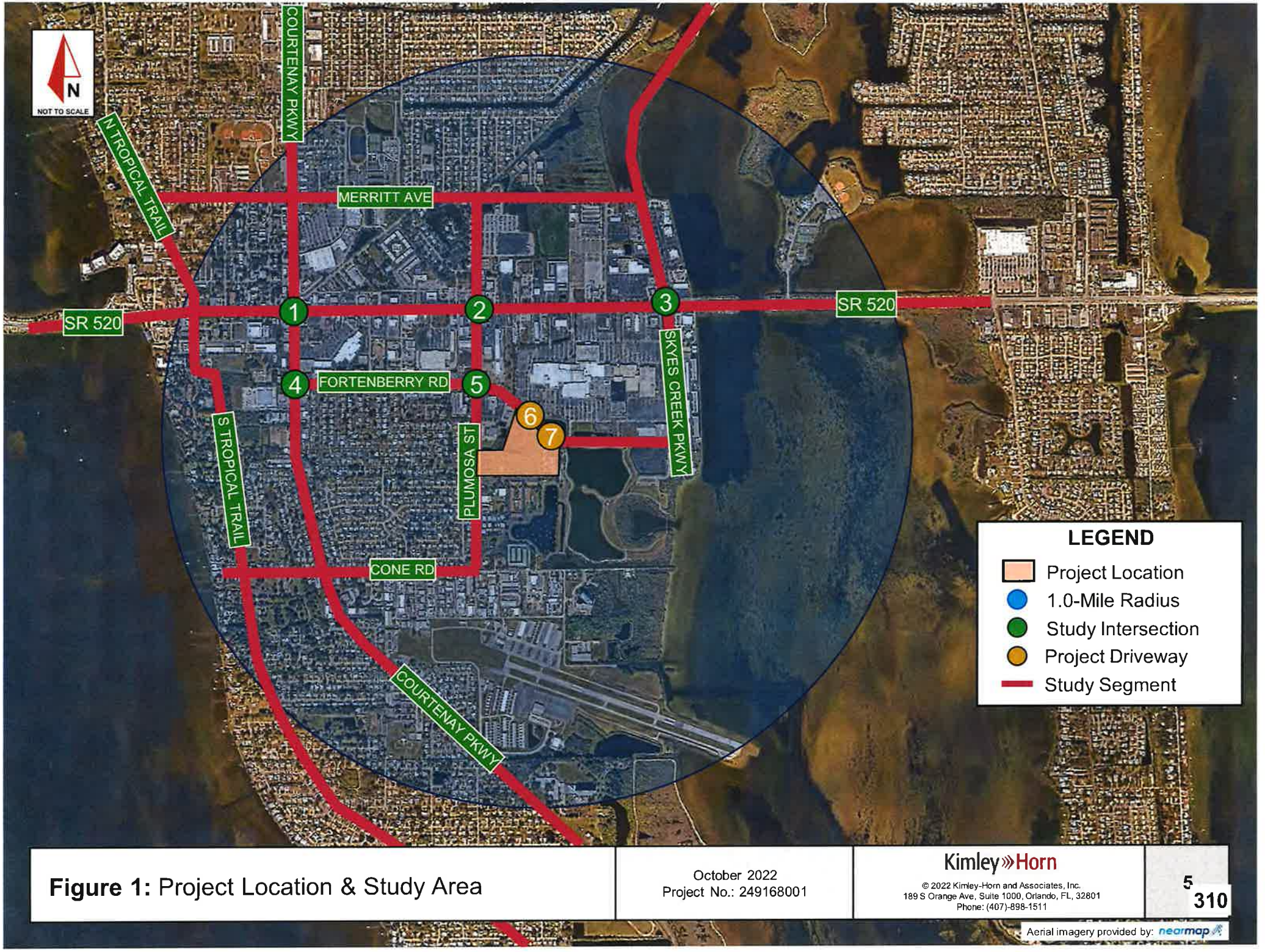


Figure 1: Project Location & Study Area

October 2022
Project No.: 249168001

Kimley»Horn

© 2022 Kimley-Horn and Associates, Inc.
189 S Orange Ave, Suite 1000, Orlando, FL, 32801
Phone: (407)-898-1511

Aerial imagery provided by: nearmap

Kimley»Horn

Existing (2022) Conditions

An existing roadway segment analysis will be performed for Daily and PM peak hour conditions for segments within the study area. Existing daily count data available from the latest Space Coast Transportation Planning Organization (SCTPO) Traffic Counts Report database will be compared to the segment's maximum allowable volume, as provided by the SCTPO and the 2020 FDOT Q/LOS Tables. As the most recent SCPTO Traffic Report does not include peak hour data, peak hour segment volumes will be extrapolated from the turning movement counts collected at the study area intersections.

Intersection turning movement counts will be collected in the AM and PM peak hour at the study area intersections on a standard mid-week day. Turning movement volumes will be adjusted by a seasonal factor (SF) based on data from FDOT's Florida Traffic Online (FTO) database. Signal timings for the signalized intersections in the study area will be requested from the County.

An intersection capacity analysis will be performed using the operational analysis procedures outlined in the *Highway Capacity Manual* 6th Edition. Specifically, Synchro (v11) software will be used to evaluate existing operational conditions at the study area intersections by reporting volume to capacity (v/c) ratios, level of service, and queue length demands. Any operational deficiencies will be identified.

Background (2025) Conditions

Per Brevard County's Guidelines on Minimum Requirements for Traffic Impact Analyses, annual growth rates shall be applied to background traffic by either applying the annual growth rate of the roadway or an annual growth rate of 2%, whichever is greater. Growth rates for the study area segments are included in **Table 2** below. The growth trend calculation worksheets are included in **Attachment B.**

Background volumes on roadway segments will be derived by applying the segment's annual growth rate. A background (2025) roadway segment analysis will also be conducted by comparing background volumes to maximum allowable volumes. Any capacity deficiencies will be identified.

Kimley»Horn

Table 2: Segment Growth Rates

Link ID#	Roadway From	To	Calculated Growth Rate	Applied Growth Rate [1]
	Fortenberry Rd			
119	Courtenay Pkwy	Plumosa St	-0.50%	2%
154	Plumosa St	Skyes Creek Pkwy	-5.09%	2%
	Cone Rd			
117	Tropical Trl	Courtenay Pkwy	-4.18%	2%
115	Courtenay Pkwy	Plumosa St	-6.46%	2%
	S Plumosa St			
106	Merritt Ave	SR 520	-3.60%	2%
120	SR 520	Fortenberry Rd	-3.42%	2%
116	Fortenberry Rd	Cone Rd	-0.48%	2%
	SR 520			
101	Bridge	Tropical Trl	0.35%	2%
148	Tropical Trl	Courtenay Pkwy	-0.91%	2%
97	Courtenay Pkwy	Plaza ent	0.26%	2%
98	Plaza ent	Plumosa St	-2.20%	2%
99	Plumosa St	Mall ent	-0.27%	2%
100	Mall ent	Skyes Creek Pkwy	0.52%	2%
149	Skyes Creek Pkwy	Newbound Harbor Dr	-2.74%	2%
	Skyes Creek Pkwy			
108	N Banana River Dr	Merritt Ave	-1.63%	2%
121	Merritt Ave	SR 520	-1.43%	2%
123	SR 520	Fortenberry Rd	-4.99%	2%
	Merritt Ave			
153	Tropical Trl	Courtenay Pkwy	0.73%	2%
103	Courtenay Pkwy	Plumosa St	0.37%	2%
110	Plumosa St	Skyes Creek Pkwy	-3.63%	2%
	Courtenay Pkwy			
131	Needle Blvd	Merritt Ave	-2.58%	2%
130	Merritt Ave	SR 520	-1.71%	2%
139	SR 520	Magnolia Ave	-3.17%	2%
122	Magnolia Ave	Fortenberry Rd	-0.57%	2%
118	Fortenberry Rd	Cone Rd	-1.91%	2%
114	Cone Rd	Banana Blvd	1.51%	2%
	Tropical Trail			
147	Merritt Ave	SR 520	-2.35%	2%
124	SR 520	Cone Rd	-1.39%	2%
126	Cone Rd	Plantation Rd	-0.71%	2%

Notes:

1. Applied Growth Rate is either 2% or the calculated growth rate, whichever is larger.

Kimley»Horn

A 2% annual growth rate will be applied to the existing intersection volumes to determine background (2025) intersection volumes. An intersection capacity analysis will be performed using the operational analysis procedures outlined in the *Highway Capacity Manual* 6th Edition. Specifically, Synchro (v11) software will be used to evaluate background operational conditions at the study area intersections by reporting volume to capacity (v/c) ratios, level of service, and queue length demands. Any operational deficiencies will be identified.

Trip Generation

Trip generation for the proposed project was calculated per procedures published in the 11th Edition of the Institute of Transportation Engineers' (ITE) *Trip Generation Manual*. Land Use Code (LUC) 221 - Multifamily Housing (Mid-Rise) was used for the proposed development.

Relevant excerpts from the *Trip Generation Manual* are included in **Attachment C.**

Table 3 provides the Daily, AM peak hour, and PM peak hour trip generation summary for the project.

Table 3: Trip Generation Summary

	Land Use	ITE LUC[1]	Size	Units	Trip Generation Equation	Daily				
						Total	In[1]		Out[1]	
Daily	Multifamily Housing (Mid-Rise)	221	368	DU	T = 4.77 * X - 46.46	1,709	50%	855	50%	854
	Total Generated Trips					**1,709**	**855**		**854**	
	Land Use	**ITE LUC[1]**	**Size**	**Units**	**Trip Generation Equation**	**AM Peak Hour**				
						Total	**In[1]**		**Out[1]**	
AM Peak Hour	Multifamily Housing (Mid-Rise)	221	368	DU	T = 0.44 * X - 11.61	150	23%	35	77%	115
	Total Generated Trips					**150**	**35**		**115**	
	Land Use	**ITE LUC[1]**	**Size**	**Units**	**Trip Generation Equation**	**PM Peak Hour**				
						Total	**In[1]**		**Out[1]**	
PM Peak Hour	Multifamily Housing (Mid-Rise)	221	368	DU	T = 0.39 * X + 0.34	144	61%	88	39%	56
	Total Generated Trips					**144**	**88**		**56**	

Note: [1] *Vehicle trip rate and directional splits per ITE Trip Generation, 11th Edition*

Kimley»Horn

Trip Distribution and Trip Assignment

Projected traffic demand of project trips on study roadways was derived with use of the most recent adopted regional travel demand model. Land use data for the project was entered into a new traffic analysis zone (TAZ) within the latest Central Florida Regional Planning Model model set and situated within the existing roadway network to appropriately represent project access. The model was used to assign trips for all trip purposes between allocated origin and destination pairs using project build-out year model data. Trip distribution for the project was extracted from the completed model assignment and reviewed for logic. **Figure 2** shows the general project distribution to be used in the forthcoming TIA. The resulting model plot showing percent of daily project distribution is provided in **Attachment D**.

Daily model project distribution will be referenced to manually assign project distribution at the study area intersections and driveways in general accordance with the model output. This project trip distribution is subject to change based upon the proposed site plan. **Figure 3** provides the anticipated project trip distribution at the study area intersections to be used in the forthcoming TIA.

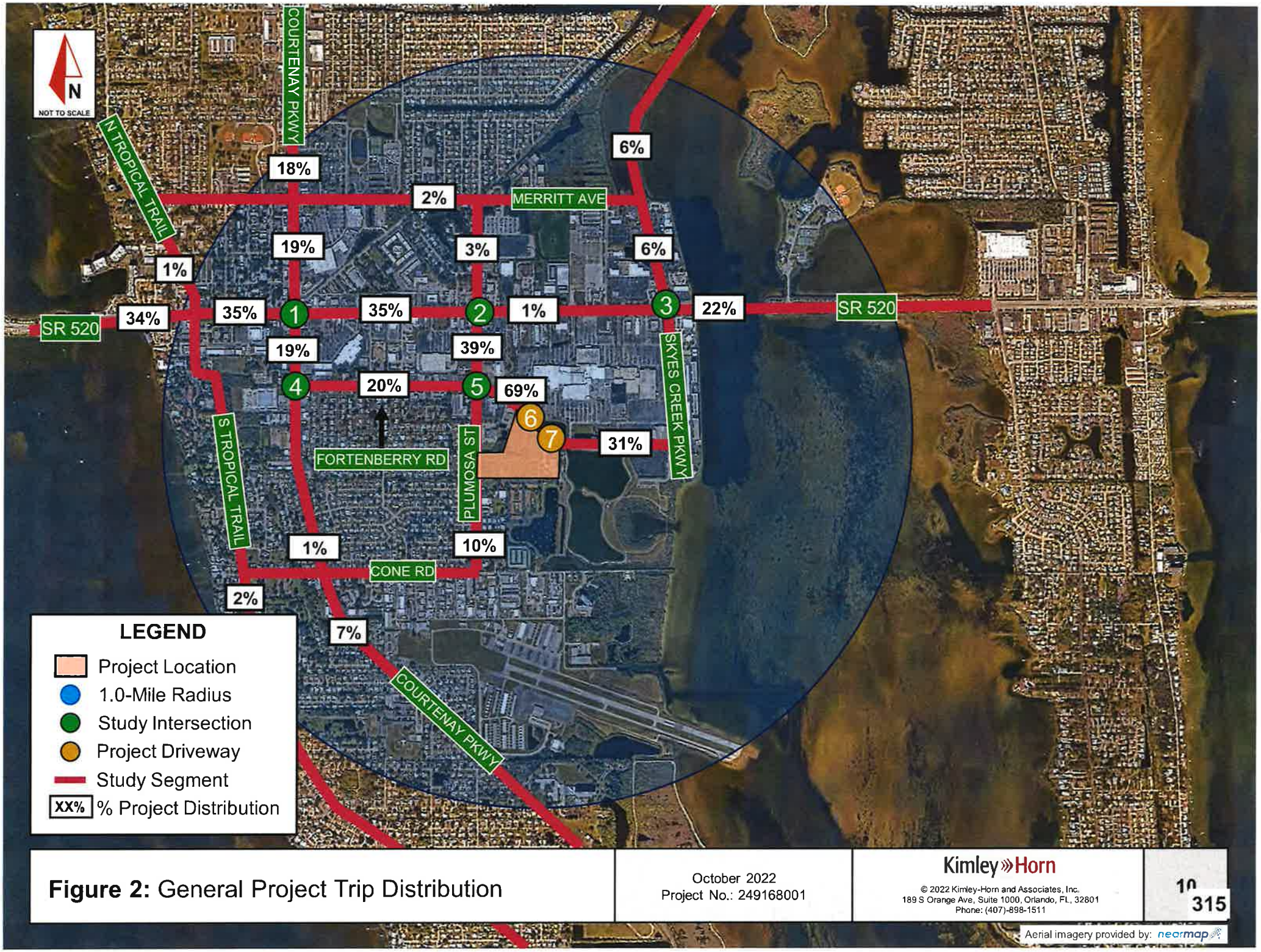


Figure 2: General Project Trip Distribution

October 2022
Project No.: 249168001

Kimley»Horn

© 2022 Kimley-Horn and Associates, Inc.
189 S Orange Ave, Suite 1000, Orlando, FL, 32801
Phone: (407)-898-1511

Aerial imagery provided by: nearmap

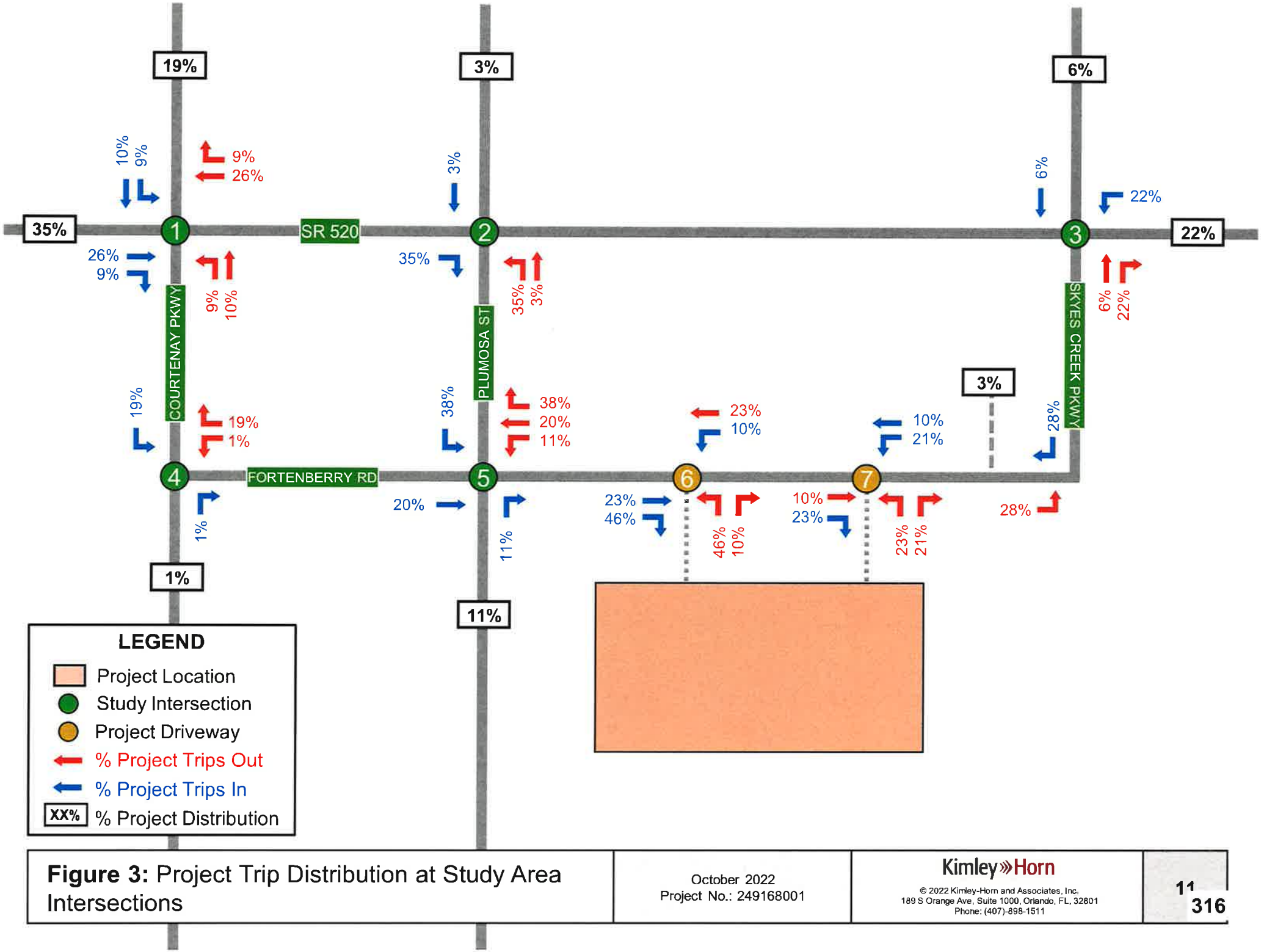


Figure 3: Project Trip Distribution at Study Area Intersections

October 2022
Project No.: 249168001

Kimley»Horn

© 2022 Kimley-Horn and Associates, Inc.
189 S Orange Ave, Suite 1000, Orlando, FL, 32801
Phone: (407)-898-1511

Buildout (2025) Conditions

A buildout (2025) roadway segment analysis will be performed for Daily and PM peak hour conditions within the study area by comparing buildout volume projections to the segment's maximum allowable volumes. Buildout volumes will be derived by adding background volumes and project trips on study area roadway segments. Any capacity deficiencies will be identified.

An intersection capacity analysis will be performed for buildout (2025) conditions using the operational analysis procedures outlined in the *Highway Capacity Manual* 6th Edition. Specifically, Synchro (v11) software will be used to evaluate buildout operational conditions at the study area intersections and project driveways by reporting volume to capacity (v/c) ratios, level of service, and queue length demands. Any operational deficiencies will be identified. If necessary, mitigating measures for any operational deficiencies identified due to project traffic impact will be recommended in the TIA.

Report/Conclusions

All analysis and findings will be documented in a report to be provided to Brevard County for review.

\\kimley-horn.com\FL_ORL\ORL_TPTO\249268001_Merritt Island Apts\02_Documentation\TIA Methodology\Merrit Island Apts_TIA Methodology_10.03.2022.docx

APPENDIX B
Concept Site Plan

OWNERS (NOTE: FOLLOWING WILL BE OWNERS AT TIME OF FORMAL FILING)

NDA MERRITT PROJECT ZENITH, LLC
2 S. UNIVERSITY DRIVE, SUITE 321
PLANTATION, FL 33324

SES MERRITT PROJECT ZENITH, LLC
2 S. UNIVERSITY DRIVE, SUITE 321
PLANTATION, FL 33324

PARCEL TAX NUMBERS:
PARCEL 1: 24-36-36-00-518
PARCEL 2: 24-36-36-00-549
PARCEL 3: 24-36-36-00-547
PARCEL 4: 24-36-36-00-543

EXISTING ZONING - BU-1 AND BU-2
PROPOSED ZONING - PLANNED UNIT DEVELOPMENT (PUD)
OVERALL ACREAGE = 15.1 AC
DWELLING UNITS = 370 DU
COMMON OPEN SPACE = 4.45 AC

DEVELOPMENT REQUIREMENTS:

	REQ./ALLOWED	PROVIDED
MIN. LOT SIZE	10,000 SF	657,820 SF
FRONT SETBACK (NORTH)	25 FT	25 FT
REAR SETBACK (SOUTH)	99 FT	95 FT
SIDE SETBACK (NORTHWEST)	25 FT	46'-2" FT

OPEN SPACE TOTALS

Common open space (includes active recreational open space)	3.77 ac (25%)	4.45 ac
Active recreation open space: 0.5 ac x 100 dus =	1.85 ac	1.19 ac

OPEN SPACE BREAKDOWN

Wetland Area #1 (Common) =	2.01 ac
Wetland Area #2 (Common) =	1.25 ac
Amenity Area (Active) =	0.16 ac
Park (Active) =	0.10 ac
Green Area #1 =	0.27 ac
Green Area #2 =	0.66 ac

BUILDING SEPARATION		20-30 FT	30'-0" FT
MIN. FLOOR AREA	1 BR	500 SF	741 SF
	2 BR	750 SF	907 SF
	3 BR	850 SF	1,290 SF
BUILDING HEIGHT		35'-0"	60FT

WAIVER TABLE

REQUEST TYPE	REQUEST	CODE SECTION	REQUIRED	PROVIDED
Waiver #1	A waiver for a 25 ft reduction in the 2:1 setback requirement to RU-2-30 residential zoning boundary along the south interior property line	Municode Brevard County, Chapter 62, Article VI, Division 5, Subdivision I, Sec. 62-1255.5 (a)(2)	120'-0"	95'-0"

LEGEND

COMMON OPEN SPACE (3.25 AC)

ACTIVE RECREATIONAL OPEN SPACE (1.19 AC)

TOTAL COMMON OPEN SPACE
(INCLUDING ACTIVE RECREATIONAL OPEN SPACE) 4.45 AC

SITE AREA TABULATIONS

Type	Area (SF.)	Area (AC.)	Percent Overall
Buildings Type II Footprint	47,154 sf	1.082 ac	7.2%
Buildings Type III Footprint	34,783 sf	.798 ac	5.3%
Clubhouse Footprint	5,100 sf	.117 ac	0.8%
Trash Compactor Footprint	609 sf	.013 ac	0.1%
Asphalt Pavement	228,181 sf	5.238 ac	34.7%
Unpaved	289,238 sf	6.639 ac	44.0%
Landscape islands/s around bldg.	52,755 sf	1.21 ac	8.0%
Overall Site	**657,820 sf**	**15.1 ac**	**100.0%**

FLOOR AREA TABULATIONS

Description	GFA (SF)	GFA (AC)
Buildings Type II	235,770 sf	5.41 ac
Buildings Type III	173,915 sf	3.99 ac
Clubhouse	8,500 sf	.117 ac
Trash Compactor Footprint	609 sf	.013 ac
TOTAL	**418,794 sf**	**9.53 ac**
COMPUTED FAR:	0.64	

DEVELOPMENT SUMMARY - UNIT MIX

Unit Types	Gross Area	Multifamily Building Types Type II(SF)	Type III(S sf)	Total Units	% of Total	Target mix	LEASABLE AREA (NRSF)
1BD							
A1	744 sf	20	30	120 units	32%	43%	89,280 sf
A2	741 sf	10	10	50 units	14%		37,050 sf
Sub-total		30	40	170 units	46%		126,330 sf
2BD							
B1	907 sf	5	0	15 units	4%	42%	13,605 sf
B2	1,073 sf	20	30	120 units	32%		128,760 sf
B3	1,179 sf	5	0	15 units	4%		17,685 sf
Sub-total		30	30	150 units	41%		160,050 sf
3BD							
C1	1,333 sf	10	10	50 units	14%	15%	66,650 sf
Sub-total		10	10	50 units	14%		66,650 sf
# of Units/Bldg		70 units	80 units	370 units			
# of Bldgs		3 bldgs	2 bldgs	5 bldgs			
Total Apart. Units		**230 units**	**140 units**	**370 units**	**100%**	**100%**	**353,030 sf**
				Gross Average Unit Area			**954 sf**

OFF-STREET PARKING

	Multifamily	# of units or SF	# Spaces
Required	All units @ 1.75 sp/du	370 units	648 sp
	Clubhouse @ 1 sp per 200 SF	8,500 sf	43 sp
	Total Required		**691 sp**
Provided	Surface (Standard)		641 sp
	Clubhouse		10 sp
	Surface (ADA)		13 sp
	Total Provided		**664 sp**

Note: Site provided ADA spaces meet ADA Standards for Accessible Design 4.1.2 (5)

1.79 sp/unit

NOTE: SUBJECT TO ALTERNATIVE PARKING STUDY

GENERAL STATEMENT

THIS PRELIMINARY DEVELOPMENT PLAN IS SUBMITTED FOR APPROVAL OF A 370 UNIT APARTMENT COMPLEX CONTAINING 15 +/- ACRES AND CONSIST OF FIVE STORY BUILDINGS, PARKING AREAS AND A RECREATIONAL COMPLEX FOR THE RESIDENTS.

THE DEVELOPMENT PROVIDES A TOTAL OPEN SPACE OF 4.45 AC. THAT INCLUDES COMMON OPEN SPACE AND RECREATIONAL OPEN SPACE.

THE WETLAND PRESERVES WILL BE MAINTAINED AND ARE THE CENTER OF THE AESTHETICS OF THE PROJECT. THE PROPERTY IS PART OF THE FORTENBERRY REGIONAL STORMWATER MANAGEMENT SYSTEM AND IS TRIBUTARY TO ALUM POND SOUTH OF THE PROPERTY.

WATER AND SANITARY SEWER SERVICE IS AVAILABLE ON-SITE AND IS MAINTAINED BY THE CITY OF COCOA AND BREVARD COUNTY.

ACCESS TO THE SITE WILL BE DIRECTED TO HARBOR WOODS BOULEVARD ALONG THE EAST SIDE OF THE PROPERTY.

GENERAL NOTES

1. THIS PLAN IS PRELIMINARY ONLY AND IS SUBJECT TO FINAL DESIGN AND PERMITTING.
2. ADDITIONAL DATA AND SUPPORTING INFORMATION IS INCLUDED ON THE ATTACHED PUD NARRATIVE INCLUDED WITH THIS PDP.
3. MAINTENANCE SHALL BE RETAINED BY OWNER, CONTROL AND MAINTENANCE OF COMMON OPEN SPACE AND FACILITIES BY THE DEVELOPER.

LEGAL DESCRIPTION:

PARCEL 1

A PORTION OF SECTION 36, TOWNSHIP 24 SOUTH, RANGE 36 EAST, BREVARD COUNTY, FLORIDA, BEING A PORTION OF THE LANDS DESCRIBED IN OFFICIAL RECORDS BOOK 1454, PAGE 2116, OF THE PUBLIC RECORDS OF BREVARD COUNTY, FLORIDA, AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE SOUTHWEST CORNER OF SAID SECTION 36; THENCE RUN NORTH 00°33'30" WEST, ALONG THE WEST LINE OF SAID SECTION 36, A DISTANCE OF 1,327.75 FEET; THENCE RUN SOUTH 89°26'30" WEST, A DISTANCE OF 1,660.00 FEET TO THE SOUTHWEST CORNER OF THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SAID SECTION 36 AND THE SOUTHWEST CORNER OF SAID OFFICIAL RECORDS BOOK 1454, PAGE 2116, FOR A POINT OF BEGINNING; THENCE RUN NORTH 00°33'30" WEST, ALONG THE WEST LINE OF SAID SECTION 36 AND THE WEST LINE OF SAID OFFICIAL RECORDS BOOK 1454, PAGE 2116, A DISTANCE OF 25.00 FEET TO THE NORTH LINE OF THE SOUTH 25.00 FEET OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SAID SECTION 36; THENCE RUN NORTH 89°26'30" EAST, ALONG SAID NORTH LINE OF THE SOUTH 25.00 FEET, A DISTANCE OF 1,660.00 FEET TO THE EAST LINE OF THE WEST 1,660.00 FEET OF SAID SECTION 36; THENCE RUN NORTH 00°33'30" WEST, ALONG SAID EAST LINE OF THE WEST 1,660.00 FEET, A DISTANCE OF 1,302.75 FEET; THENCE RUN NORTH 89°26'30" EAST, A DISTANCE OF 95.00 FEET; THENCE RUN NORTH 00°33'30" WEST, A DISTANCE OF 25.00 FEET TO THE NORTH LINE OF SAID OFFICIAL RECORDS BOOK 1454, PAGE 2116; THENCE RUN SOUTH 89°26'30" WEST, ALONG SAID NORTH LINE, A DISTANCE OF 95.00 FEET TO THE POINT OF BEGINNING.

PARCEL 2

A PARCEL OF LAND LYING IN SECTION 36, TOWNSHIP 24 SOUTH, RANGE 36 EAST, TALLAHASSEE BASE MERIDIAN, BREVARD COUNTY, FLORIDA, MORE FULLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE INTERSECTION OF THE SOUTH RIGHT-OF-WAY LINE OF FORTENBERRY ROAD AND THE EASTERLY RIGHT-OF-WAY LINE OF PLUMOSA AVENUE; THENCE RUN SOUTH 89°26'30" EAST, ALONG SAID EASTERLY RIGHT-OF-WAY LINE, A DISTANCE OF 417.68 FEET; THENCE RUN NORTH 89°26'30" EAST, A DISTANCE OF 238.34 FEET TO THE POINT OF BEGINNING OF THE LANDS HEREIN DESCRIBED; THENCE RUN NORTH 15°43'22" EAST, A DISTANCE OF 182.39 FEET TO A POINT ON SAID SOUTHERLY RIGHT-OF-WAY LINE OF FORTENBERRY ROAD; THENCE RUN SOUTH 89°26'30" EAST, ALONG SAID SOUTHERLY RIGHT-OF-WAY LINE, A DISTANCE OF 315.65 FEET; THENCE RUN SOUTH 15°43'22" WEST, A DISTANCE OF 247.77 FEET; THENCE RUN SOUTH 74°16'38" EAST, A DISTANCE OF 29.28 FEET; THENCE RUN SOUTH 15°43'22" WEST, A DISTANCE OF 180.84 FEET; THENCE RUN SOUTH 89°26'30" WEST, A DISTANCE OF 317.40 FEET TO THE POINT OF BEGINNING.

PARCEL 3

A PARCEL OF LAND LYING IN SECTION 36, TOWNSHIP 24 SOUTH, RANGE 36 EAST, BREVARD COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE INTERSECTION OF THE SOUTH RIGHT-OF-WAY LINE OF FORTENBERRY ROAD AND THE EAST RIGHT-OF-WAY LINE OF PLUMOSA AVENUE; THENCE RUN SOUTH 89°26'30" EAST, ALONG SAID SOUTH RIGHT-OF-WAY LINE, A DISTANCE OF 417.68 FEET; THENCE RUN SOUTH 15°43'22" WEST, A DISTANCE OF 182.39 FEET TO THE POINT OF BEGINNING; THENCE RUN NORTH 74°16'38" WEST, A DISTANCE OF 100.67 FEET TO THE POINT OF BEGINNING OF THE LANDS HEREIN DESCRIBED; THENCE RUN SOUTH 89°26'30" EAST, A DISTANCE OF 238.34 FEET; THENCE RUN SOUTH 15°43'22" WEST, A DISTANCE OF 247.77 FEET; THENCE RUN NORTH 74°16'38" WEST, A DISTANCE OF 238.34 FEET; THENCE RUN NORTH 15°43'22" EAST, A DISTANCE OF 247.77 FEET TO THE POINT OF BEGINNING.

PARCEL 4

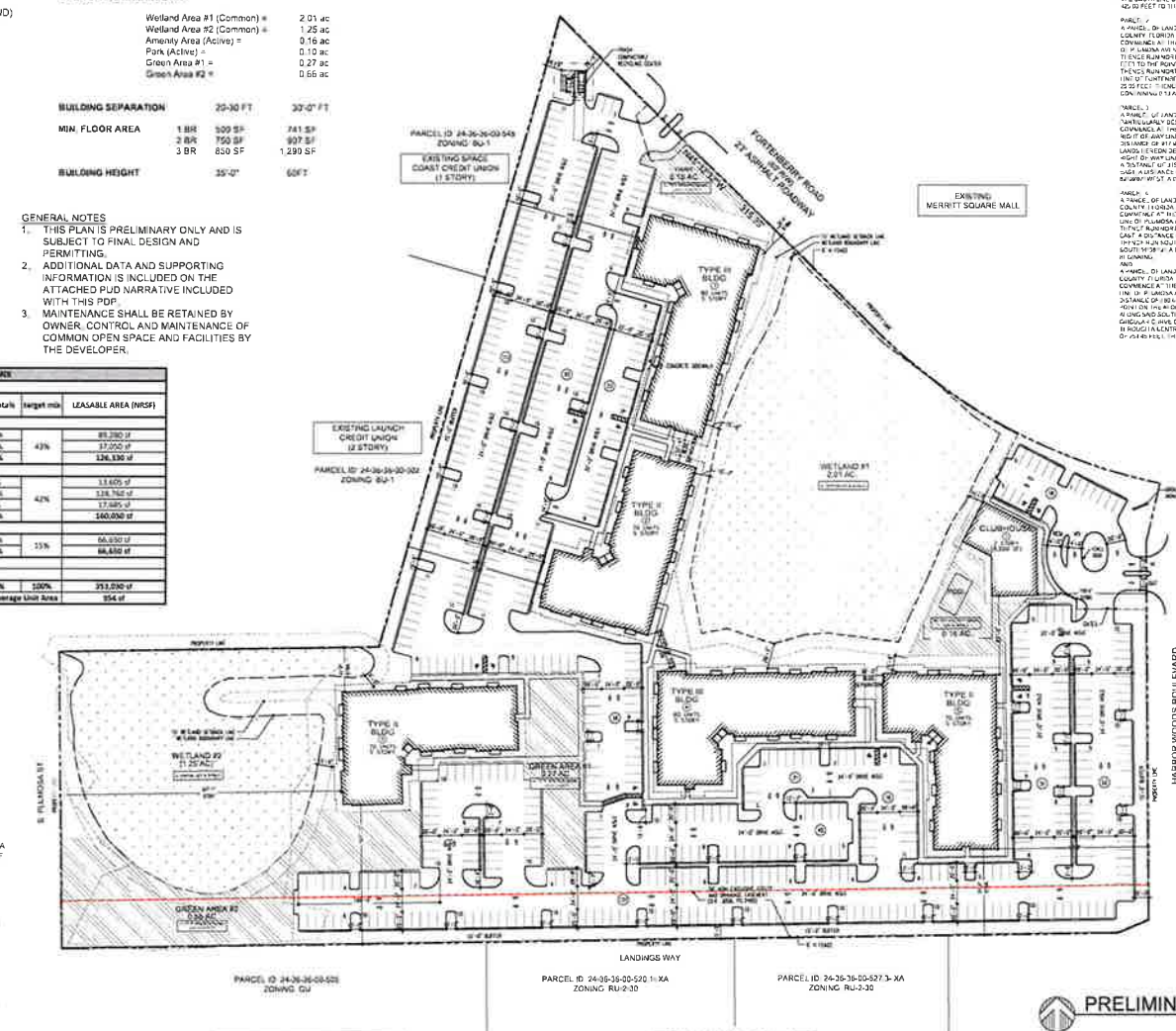
A PARCEL OF LAND LYING IN SECTION 36, TOWNSHIP 24 SOUTH, RANGE 36 EAST, TALLAHASSEE BASE MERIDIAN, BREVARD COUNTY, FLORIDA, MORE FULLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE INTERSECTION OF THE SOUTH RIGHT-OF-WAY LINE OF FORTENBERRY ROAD AND THE EAST RIGHT-OF-WAY LINE OF PLUMOSA AVENUE; THENCE RUN SOUTH 89°26'30" EAST, ALONG SAID SOUTH RIGHT-OF-WAY LINE, A DISTANCE OF 417.68 FEET; THENCE RUN SOUTH 15°43'22" WEST, A DISTANCE OF 182.39 FEET TO THE POINT OF BEGINNING; THENCE RUN NORTH 74°16'38" WEST, A DISTANCE OF 100.67 FEET TO THE POINT OF BEGINNING OF THE LANDS HEREIN DESCRIBED; THENCE RUN SOUTH 89°26'30" EAST, A DISTANCE OF 238.34 FEET; THENCE RUN SOUTH 15°43'22" WEST, A DISTANCE OF 247.77 FEET; THENCE RUN NORTH 74°16'38" WEST, A DISTANCE OF 238.34 FEET; THENCE RUN NORTH 15°43'22" EAST, A DISTANCE OF 247.77 FEET TO THE POINT OF BEGINNING.

PARCEL 5

A PARCEL OF LAND LYING IN SECTION 36, TOWNSHIP 24 SOUTH, RANGE 36 EAST, BREVARD COUNTY, FLORIDA, MORE FULLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE INTERSECTION OF THE SOUTH RIGHT-OF-WAY LINE OF FORTENBERRY ROAD AND THE EAST RIGHT-OF-WAY LINE OF PLUMOSA AVENUE; THENCE RUN SOUTH 89°26'30" EAST, ALONG SAID SOUTH RIGHT-OF-WAY LINE, A DISTANCE OF 1,660.00 FEET; THENCE RUN SOUTH 00°33'30" WEST, A DISTANCE OF 25.00 FEET TO THE POINT OF BEGINNING; THENCE RUN SOUTH 89°26'30" EAST, A DISTANCE OF 95.00 FEET; THENCE RUN SOUTH 00°33'30" WEST, A DISTANCE OF 1,302.75 FEET; THENCE RUN NORTH 89°26'30" WEST, A DISTANCE OF 95.00 FEET; THENCE RUN NORTH 00°33'30" EAST, A DISTANCE OF 1,302.75 FEET TO THE POINT OF BEGINNING.





SITE MAP
NTS

PRELIMINARY DEVELOPMENT PLAN
SCALE: 1"=60'-0"

NORTH

ARCHITECT:
MSA ARCHITECTS
8950 SW 74th COURT, SUITE 1513
KENDALL, FL 33156
305-273-9911

SURVEYOR:
KIN SURVEY
5220 US-1, SUITE 104
VERO BEACH, FL 32967
888-396-7770

ENGINEER / PLANNER:
LAND PLAN ENGINEERING GROUP, INC.
1475 NW 126 DRIVE
CORAL SPRINGS, FL 33071
954-812-5651

REVISIONS	BY

FORTENBERRY ROAD APTS.
LOCATED AT:
MERRITT ISLAND, FLORIDA
FOR:
WOODFIELD

GEORGE L. MOURIZ
AR0007806

MSA ARCHITECTS, INC.
AA0003095
8950 SW 74th COURT
SUITE 1513
MIAMI, FLORIDA 33156
(305) 273-9911

MSA ARCHITECTS
ARCHITECTURE & PLANNING

COPYRIGHT © 2022 MSA ARCHITECTS, INC. THE ARCHITECTURAL DESIGNS AND IDEAS, DRAWINGS, FOR THIS BUILDING, AND/OR OVERALL PROJECT ARE THE LEGAL PROPERTY OF AND ALL RIGHTS ARE RESERVED BY THE ARCHITECT. THEY ARE NOT TO BE USED IN ANY WAY FOR ANY OTHER PROJECT, ADDITIONS OR ALTERATIONS TO THIS BUILDING OR DISTRIBUTED TO ANY OTHER PARTIES WITHOUT THE EXPRESSED WRITTEN CONSENT OF THE ARCHITECT.

DRAWN	
DATE	08/08/2022
SCALE	AS SHOWN
JOB NO.	2163.PRJ
SHEET TITLE	PRELIMINARY DEVELOPMENT PLAN
SHEET NUMBER	PDP-1

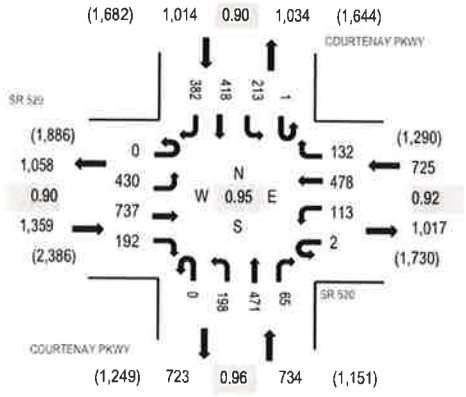
PROGRESS 2022.12.20

APPENDIX C
Turning Movement Counts

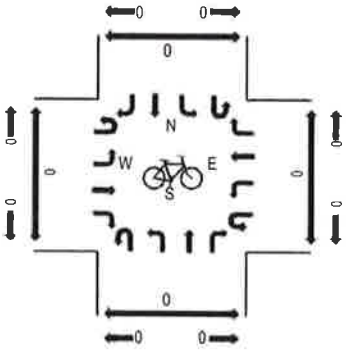
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 1 COURTENAY PKWY & SR 520 AM
Date: Tuesday, October 18, 2022
Peak Hour: 08:00 AM - 09:00 AM
Peak 15-Minutes: 08:15 AM - 08:30 AM

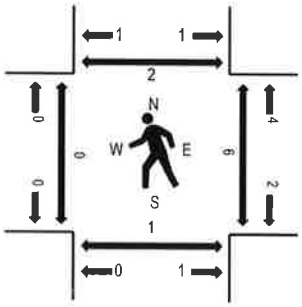
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	SR 520 Eastbound				SR 520 Westbound				COURTENAY PKWY Northbound				COURTENAY PKWY Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	47	107	28	0	11	71	12	0	18	56	9	0	19	46	49	473	2,677	0	0	0	0
7:15 AM	0	64	112	33	0	19	113	28	0	38	65	5	0	18	92	65	652	3,101	0	0	0	0
7:30 AM	0	62	147	39	0	32	105	13	0	57	85	13	0	37	58	70	718	3,461	0	0	0	0
7:45 AM	0	121	200	67	0	19	115	27	0	37	29	5	1	41	82	90	834	3,704	0	1	0	0
8:00 AM	0	132	173	36	0	25	103	23	0	54	106	14	1	44	97	89	897	3,832	0	1	0	0
8:15 AM	0	113	190	50	0	39	102	35	0	42	137	13	0	55	110	105	1,001		0	1	0	1
8:30 AM	0	86	178	49	0	31	111	42	0	43	117	23	0	60	116	105	961		0	1	1	0
8:45 AM	0	99	196	57	2	28	131	32	0	59	111	15	0	54	95	83	962		0	3	0	1

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
Articulated Trucks	0	2	10	2	0	0	8	0	0	3	0	1	0	1	4	4	35
Lights	0	421	717	184	2	112	461	129	0	194	465	64	1	208	408	376	3,742
Mediums	0	7	10	6	0	1	9	3	0	1	6	0	0	4	6	2	55
Total	0	430	737	192	2	113	478	132	0	198	471	65	1	213	418	382	3,832

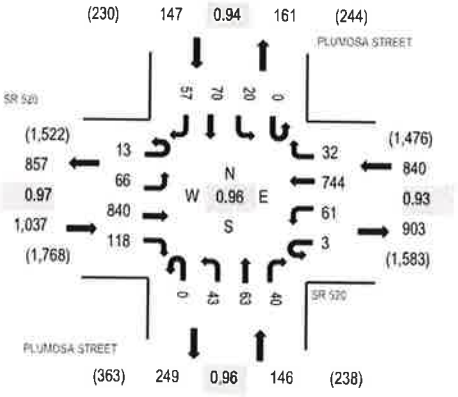
Heavy Vehicle Percentage and Peak Hour Factor

	Eastbound				Westbound				Northbound				Southbound				
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
Heavy Vehicle %		2.7%				2.9%				1.5%				2.1%			2.3%
Heavy Vehicle %	0.0%	2.1%	2.7%	4.2%	0.0%	0.9%	3.6%	2.3%	0.0%	2.0%	1.3%	1.5%	0.0%	2.3%	2.4%	1.6%	2.3%
Peak Hour Factor		0.90				0.92				0.96				0.90			0.95
Peak Hour Factor	0.00	0.86	0.93	0.75	0.25	0.91	0.90	0.79	0.00	0.84	0.86	0.71	0.50	0.89	0.90	0.93	0.95

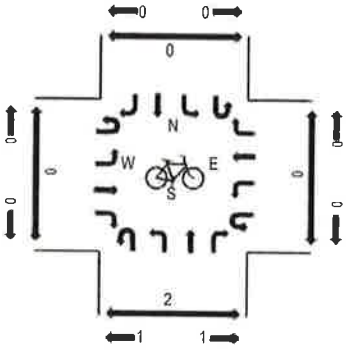
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 2 PLUMOSA STREET & SR 520 AM
Date: Tuesday, October 18, 2022
Peak Hour: 08:00 AM - 09:00 AM
Peak 15-Minutes: 08:45 AM - 09:00 AM

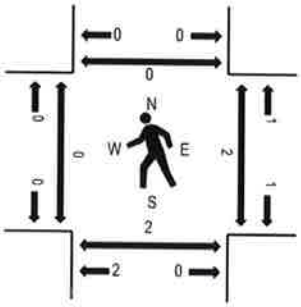
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	SR 520 Eastbound				SR 520 Westbound				PLUMOSA STREET Northbound				PLUMOSA STREET Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	1	7	121	10	0	3	99	5	0	5	7	5	0	0	1	10	274	1,542	2	0	3	0
7:15 AM	0	7	120	12	0	8	174	1	0	9	6	10	0	0	9	12	368	1,772	0	0	1	0
7:30 AM	1	7	209	14	0	11	146	3	0	8	9	10	0	4	7	14	443	1,949	0	0	0	0
7:45 AM	0	10	191	21	1	8	169	8	0	5	13	5	0	4	10	12	457	2,063	0	0	0	0
8:00 AM	1	22	188	27	0	12	171	10	0	5	21	10	0	4	19	14	504	2,170	0	0	0	0
8:15 AM	1	19	220	26	0	10	189	7	0	8	18	9	0	5	19	14	545		0	0	0	0
8:30 AM	3	12	218	34	1	16	192	5	0	11	14	12	0	5	16	18	557		0	1	0	0
8:45 AM	3	13	214	31	2	23	192	10	0	13	10	9	0	8	16	11	564		0	1	2	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
Articulated Trucks	0	1	9	1	0	0	4	0	0	1	0	0	0	0	0	1	17
Lights	13	64	803	113	3	61	719	32	0	41	61	39	0	19	67	56	2,091
Mediums	0	1	28	4	0	0	21	0	0	1	2	1	0	1	3	0	62
Total	13	66	840	118	3	61	744	32	0	43	63	40	0	20	70	57	2,170

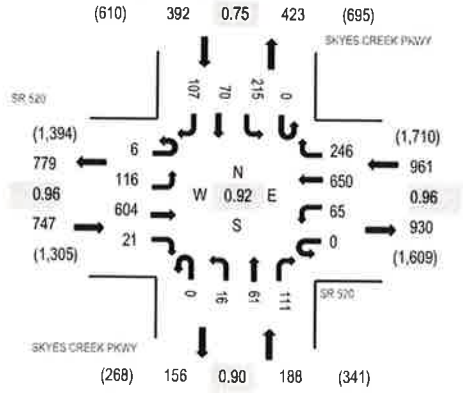
Heavy Vehicle Percentage and Peak Hour Factor

	Eastbound				Westbound				Northbound				Southbound				
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
Heavy Vehicle %			4.2%				3.0%				3.4%				3.4%		3.6%
Heavy Vehicle %	0.0%	3.0%	4.4%	4.2%	0.0%	0.0%	3.4%	0.0%	0.0%	4.7%	3.2%	2.5%	0.0%	5.0%	4.3%	1.8%	3.6%
Peak Hour Factor			0.97				0.93				0.96				0.94		0.96
Peak Hour Factor	0.41	0.75	0.95	0.87	0.38	0.66	0.97	0.80	0.00	0.57	0.79	0.83	0.00	0.83	0.92	0.81	0.96

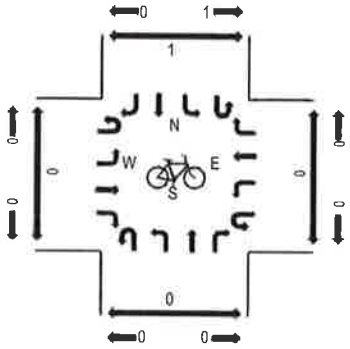
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 3 SKYES CREEK PKWY & SR 520 AM
Date: Tuesday, October 18, 2022
Peak Hour: 08:00 AM - 09:00 AM
Peak 15-Minutes: 08:45 AM - 09:00 AM

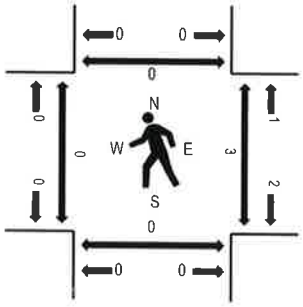
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	SR 520 Eastbound				SR 520 Westbound				SKYES CREEK PKWY Northbound				SKYES CREEK PKWY Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	9	102	2	0	8	93	27	0	3	4	17	0	20	7	13	305	1,678	0	0	0	0
7:15 AM	0	13	86	0	0	17	138	28	0	2	7	17	0	16	8	18	350	1,876	0	0	0	1
7:30 AM	0	32	139	4	1	16	145	40	0	4	9	37	0	39	8	22	496	2,100	0	0	0	0
7:45 AM	0	30	134	7	0	25	155	56	0	3	17	33	0	38	10	19	527	2,194	0	0	0	0
8:00 AM	1	26	139	5	0	14	141	57	0	7	14	24	0	39	16	20	503	2,288	0	3	0	0
8:15 AM	1	29	152	7	0	11	169	71	0	3	13	24	0	59	13	22	574		0	0	0	0
8:30 AM	1	32	158	3	0	21	164	66	0	0	17	35	0	45	24	24	590		0	0	0	0
8:45 AM	3	29	155	6	0	19	173	52	0	8	17	28	0	72	17	41	621		0	0	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	6	0	0	0	4	1	0	0	0	0	0	1	1	0	13
Lights	6	115	572	20	0	64	630	241	0	15	60	110	0	211	69	106	2,219
Mediums	0	1	26	1	0	1	16	4	0	1	1	1	0	3	0	1	56
Total	6	116	604	21	0	65	650	246	0	16	61	111	0	215	70	107	2,288

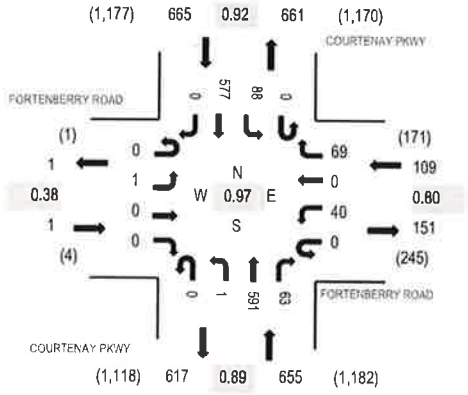
Heavy Vehicle Percentage and Peak Hour Factor

	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Heavy Vehicle %		4.6%				2.7%				1.6%				1.5%			3.0%
Heavy Vehicle %	0.0%	0.9%	5.3%	4.8%	0.0%	1.5%	3.1%	2.0%	0.0%	6.3%	1.6%	0.9%	0.0%	1.9%	1.4%	0.9%	3.0%
Peak Hour Factor		0.96				0.96				0.90				0.75			0.92
Peak Hour Factor	0.50	0.91	0.96	0.82	0.25	0.72	0.92	0.88	0.00	0.61	0.90	0.80	0.00	0.75	0.73	0.65	0.92

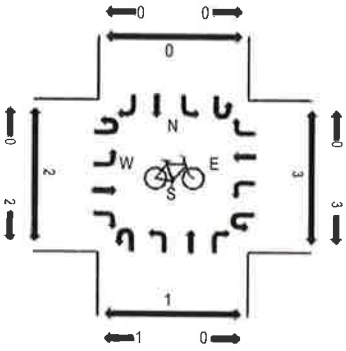
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 4 COURTENAY PKWY & FORTENBERRY ROAD AM
Date: Tuesday, October 18, 2022
Peak Hour: 08:00 AM - 09:00 AM
Peak 15-Minutes: 08:30 AM - 08:45 AM

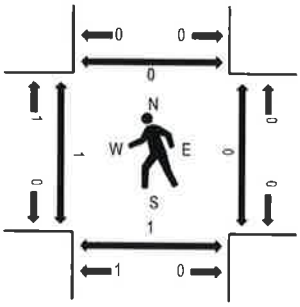
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	FORTENBERRY ROAD Eastbound				FORTENBERRY ROAD Westbound				COURTENAY PKWY Northbound				COURTENAY PKWY Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	0	0	0	0	2	0	8	0	0	91	7	0	3	82	0	193	1,104	0	1	0	0
7:15 AM	0	0	0	0	0	9	0	8	0	0	96	9	0	8	115	0	245	1,272	2	0	0	0
7:30 AM	0	1	0	0	0	7	0	10	0	0	146	17	0	8	130	0	319	1,378	0	1	0	0
7:45 AM	0	0	0	2	0	10	0	8	0	0	141	20	0	22	144	0	347	1,429	0	1	0	0
8:00 AM	0	0	0	0	0	8	0	11	0	0	175	18	0	21	128	0	361	1,430	0	0	0	0
8:15 AM	0	0	0	0	0	7	0	18	0	0	154	14	0	16	142	0	351		0	0	0	0
8:30 AM	0	1	0	0	0	12	0	22	0	1	137	16	0	23	153	0	370		1	0	1	0
8:45 AM	0	0	0	0	0	13	0	18	0	0	125	15	0	23	154	0	348		0	0	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	2	0	0	1	0	0	0	7	0	10
Lights	0	1	0	0	0	38	0	66	0	1	582	62	0	88	553	0	1,391
Mediums	0	0	0	0	0	2	0	1	0	0	8	1	0	0	17	0	29
Total	0	1	0	0	0	40	0	69	0	1	591	63	0	88	577	0	1,430

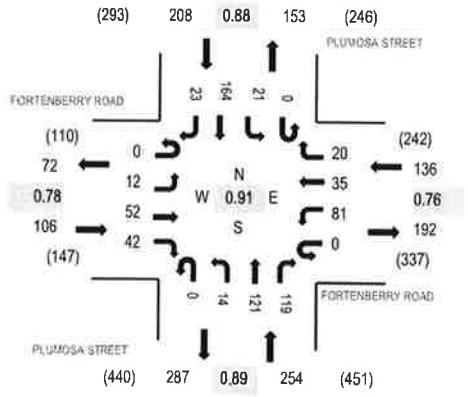
Heavy Vehicle Percentage and Peak Hour Factor

	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Heavy Vehicle %		0.0%				4.6%				1.5%				3.6%			2.7%
Heavy Vehicle %	0.0%	0.0%	0.0%	0.0%	0.0%	5.0%	0.0%	4.3%	0.0%	0.0%	1.5%	1.6%	0.0%	0.0%	4.2%	0.0%	2.7%
Peak Hour Factor		0.38				0.80				0.89				0.92			0.97
Peak Hour Factor	0.00	0.25	0.00	0.25	0.00	0.77	0.00	0.78	0.00	0.25	0.88	0.86	0.00	0.79	0.94	0.00	0.97

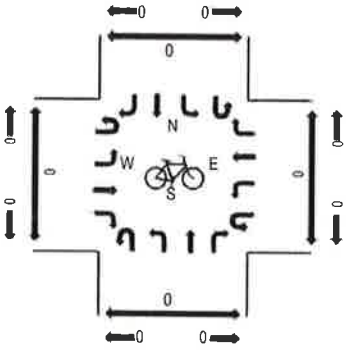
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 5 PLUMOSA STREET & FORTENBERRY ROAD AM
Date: Tuesday, October 18, 2022
Peak Hour: 08:00 AM - 09:00 AM
Peak 15-Minutes: 08:30 AM - 08:45 AM

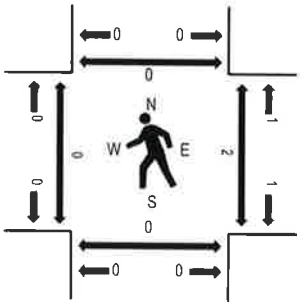
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	FORTENBERRY ROAD Eastbound				FORTENBERRY ROAD Westbound				PLUMOSA STREET Northbound				PLUMOSA STREET Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	0	3	1	0	6	5	4	0	2	16	14	0	3	10	0	64	429	0	0	0	0
7:15 AM	0	0	5	6	0	19	8	3	0	1	21	20	0	2	16	0	101	529	0	0	0	0
7:30 AM	0	1	8	2	0	19	7	3	0	2	22	36	0	2	22	1	125	581	0	0	0	0
7:45 AM	0	2	10	3	0	23	6	3	0	4	18	41	0	1	26	2	139	650	0	0	0	0
8:00 AM	0	3	9	9	0	19	5	4	0	1	36	29	0	2	41	6	164	704	0	0	0	0
8:15 AM	0	2	18	6	0	21	8	3	0	2	28	23	0	4	31	7	153		0	0	0	0
8:30 AM	0	4	17	13	0	16	6	7	0	0	28	37	0	7	48	3	194		0	0	0	0
8:45 AM	0	3	8	14	0	25	14	6	0	5	29	30	0	8	44	7	193		0	2	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	3
Lights	0	12	50	42	0	79	35	19	0	14	115	119	0	21	161	21	688
Mediums	0	0	2	0	0	2	0	0	0	0	6	0	0	0	2	1	13
Total	0	12	52	42	0	81	35	20	0	14	121	119	0	21	164	23	704

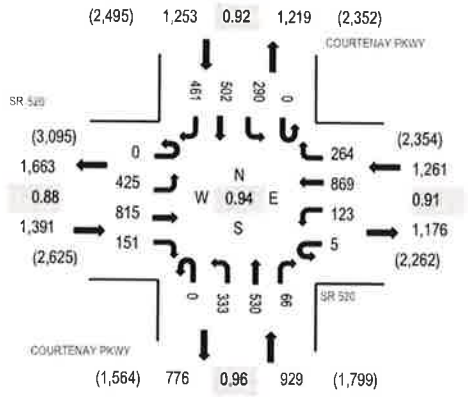
Heavy Vehicle Percentage and Peak Hour Factor

	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Heavy Vehicle %		1.9%				2.2%				2.4%				2.4%			2.3%
Heavy Vehicle %	0.0%	0.0%	3.8%	0.0%	0.0%	2.5%	0.0%	5.0%	0.0%	0.0%	5.0%	0.0%	0.0%	0.0%	1.8%	8.7%	2.3%
Peak Hour Factor		0.78				0.76				0.89				0.88			0.91
Peak Hour Factor	0.00	0.75	0.75	0.75	0.00	0.89	0.63	0.71	0.00	0.58	0.84	0.79	0.00	0.66	0.85	0.82	0.91

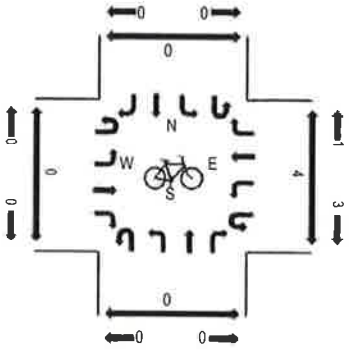
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 1 COURTENAY PKWY & SR 520 PM
Date: Tuesday, October 18, 2022
Peak Hour: 04:30 PM - 05:30 PM
Peak 15-Minutes: 05:15 PM - 05:30 PM

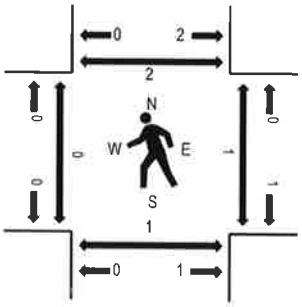
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	SR 520 Eastbound				SR 520 Westbound				COURTENAY PKWY Northbound				COURTENAY PKWY Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	92	205	37	2	34	201	64	0	69	108	13	0	75	144	128	1,172	4,649	0	1	0	0
4:15 PM	0	87	167	40	1	33	195	54	0	89	118	23	0	96	118	98	1,119	4,670	0	2	0	0
4:30 PM	0	91	208	34	0	20	226	74	0	91	120	22	0	82	83	120	1,171	4,834	0	1	0	1
4:45 PM	0	84	201	33	2	47	218	70	0	74	141	13	0	65	140	99	1,187	4,797	0	0	0	0
5:00 PM	0	110	197	39	1	24	176	55	0	86	144	15	0	76	146	124	1,193	4,624	0	0	0	0
5:15 PM	0	140	209	45	2	32	243	85	0	82	125	16	0	87	133	118	1,268		0	0	1	1
5:30 PM	0	98	175	35	0	38	201	61	0	48	150	20	1	66	138	103	1,134		0	0	0	0
5:45 PM	0	96	166	36	0	14	137	58	0	68	146	18	0	59	121	95	1,014		0	0	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
Articulated Trucks	0	0	6	1	0	0	4	1	0	3	2	0	0	1	0	0	18
Lights	0	424	804	149	5	122	853	262	0	326	519	66	0	289	502	458	4,779
Mediums	0	1	5	1	0	1	12	1	0	4	9	0	0	0	0	3	37
Total	0	425	815	151	5	123	869	264	0	333	530	66	0	290	502	461	4,834

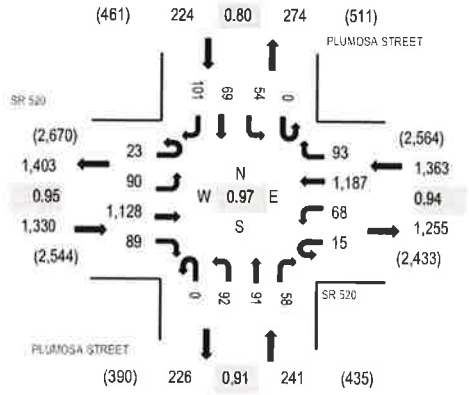
Heavy Vehicle Percentage and Peak Hour Factor

	Eastbound				Westbound				Northbound				Southbound				
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
Heavy Vehicle %		1.0%				1.5%				1.9%				0.3%			1.1%
Heavy Vehicle %	0.0%	0.2%	1.3%	1.3%	0.0%	0.8%	1.8%	0.8%	0.0%	2.1%	2.1%	0.0%	0.0%	0.3%	0.0%	0.7%	1.1%
Peak Hour Factor		0.88				0.91				0.96				0.92			0.94
Peak Hour Factor	0.00	0.79	0.97	0.86	0.63	0.75	0.87	0.89	0.00	0.93	0.94	0.79	0.25	0.83	0.95	0.93	0.94

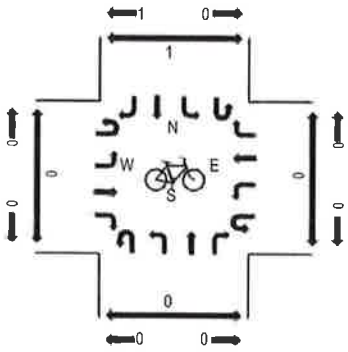
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 2 PLUMOSA STREET & SR 520 PM
Date: Tuesday, October 18, 2022
Peak Hour: 04:15 PM - 05:15 PM
Peak 15-Minutes: 05:00 PM - 05:15 PM

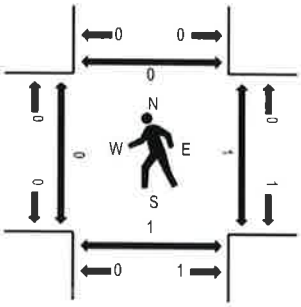
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	SR 520 Eastbound				SR 520 Westbound				PLUMOSA STREET Northbound				PLUMOSA STREET Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	5	23	270	12	2	18	303	16	0	20	15	12	0	16	21	37	770	3,113	0	1	2	0
4:15 PM	8	19	302	19	6	21	307	29	0	13	15	5	0	14	19	24	801	3,158	0	0	0	0
4:30 PM	3	27	252	30	4	19	270	26	0	18	28	20	0	13	17	27	754	3,100	0	0	0	0
4:45 PM	5	26	277	13	5	20	303	22	0	33	19	17	0	13	14	21	788	3,040	0	1	0	0
5:00 PM	7	18	297	27	0	8	307	16	0	28	29	16	0	14	19	29	815	2,891	0	0	1	0
5:15 PM	6	30	270	9	7	13	272	17	0	24	18	15	0	24	11	27	743		0	0	0	0
5:30 PM	4	20	247	5	7	13	275	20	0	23	15	8	0	17	23	17	694		0	2	2	0
5:45 PM	11	27	257	18	2	8	209	19	0	13	17	14	0	10	13	21	639		0	0	2	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
Articulated Trucks	0	0	3	0	0	0	5	0	0	0	0	0	0	0	0	0	8
Lights	23	85	1,117	87	15	68	1,165	90	0	90	91	57	0	52	68	100	3,108
Mediums	0	5	8	2	0	0	17	3	0	2	0	1	0	2	1	1	42
Total	23	90	1,128	89	15	68	1,187	93	0	92	91	58	0	54	69	101	3,158

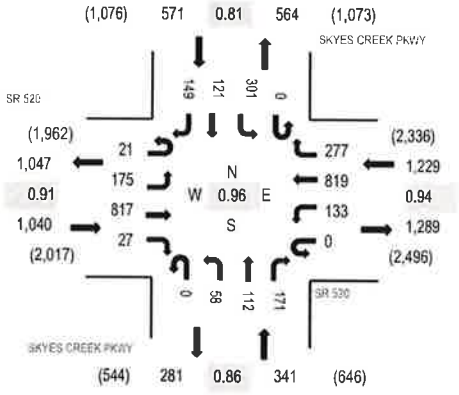
Heavy Vehicle Percentage and Peak Hour Factor

	Eastbound				Westbound				Northbound				Southbound				
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
Heavy Vehicle %		1.4%				1.8%				1.2%				1.8%			1.6%
Heavy Vehicle %	0.0%	5.6%	1.0%	2.2%	0.0%	0.0%	1.9%	3.2%	0.0%	2.2%	0.0%	1.7%	0.0%	3.7%	1.4%	1.0%	1.6%
Peak Hour Factor		0.95				0.94				0.91				0.80			0.97
Peak Hour Factor	0.64	0.84	0.93	0.74	0.68	0.93	0.97	0.80	0.00	0.82	0.81	0.85	0.00	0.71	0.85	0.74	0.97

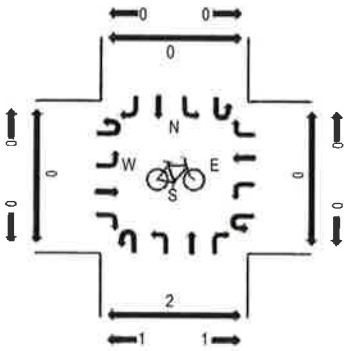
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 3 SKYES CREEK PKWY & SR 520 PM
Date: Tuesday, October 18, 2022
Peak Hour: 04:00 PM - 05:00 PM
Peak 15-Minutes: 04:00 PM - 04:15 PM

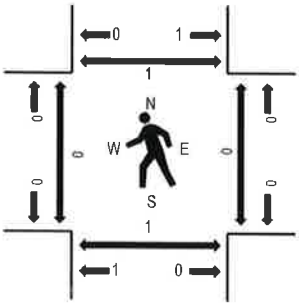
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	SR 520 Eastbound				SR 520 Westbound				SKYES CREEK PKWY Northbound				SKYES CREEK PKWY Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	6	48	222	10	0	35	202	82	0	19	18	36	0	69	37	51	552	3,181	0	0	1	0
4:15 PM	4	51	213	6	0	36	220	75	0	12	38	41	0	65	34	31	826	3,139	0	0	0	1
4:30 PM	3	39	168	6	0	37	213	67	0	17	31	58	0	85	26	32	782	3,083	0	0	0	0
4:45 PM	8	37	214	5	0	25	184	73	0	10	27	36	0	63	24	35	741	2,964	0	0	0	0
5:00 PM	7	42	199	3	0	34	207	72	0	8	38	49	0	58	43	30	790	2,894	0	1	0	0
5:15 PM	4	44	201	6	0	30	220	51	0	14	27	39	0	75	25	34	770		0	0	0	0
5:30 PM	3	36	202	8	0	28	163	52	0	10	22	29	0	61	21	28	663		0	0	0	0
5:45 PM	2	33	181	6	0	27	158	65	0	6	27	36	0	77	32	21	671		0	0	2	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
Articulated Trucks	0	0	1	0	0	0	4	1	0	0	0	0	0	1	0	0	7
Lights	21	173	808	27	0	131	796	268	0	58	110	168	0	299	117	148	3,124
Mediums	0	2	8	0	0	2	19	8	0	0	2	3	0	1	4	1	50
Total	21	175	817	27	0	133	819	277	0	58	112	171	0	301	121	149	3,181

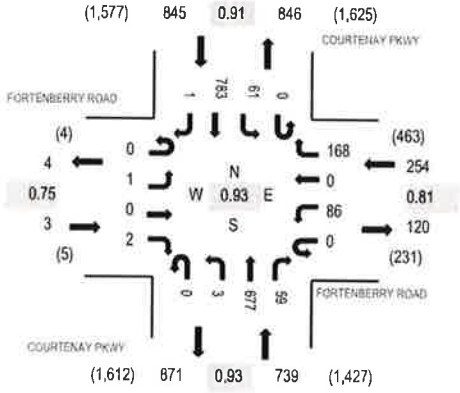
Heavy Vehicle Percentage and Peak Hour Factor

	Eastbound				Westbound				Northbound				Southbound				
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
Heavy Vehicle %		1.1%				2.8%				1.5%				1.2%			1.8%
Heavy Vehicle %	0.0%	1.1%	1.1%	0.0%	0.0%	1.5%	2.8%	3.2%	0.0%	0.0%	1.8%	1.8%	0.0%	0.7%	3.3%	0.7%	1.8%
Peak Hour Factor		0.91				0.94				0.86				0.81			0.96
Peak Hour Factor	0.69	0.86	0.92	0.68	0.00	0.90	0.94	0.96	0.00	0.76	0.88	0.79	0.00	0.86	0.74	0.73	0.96

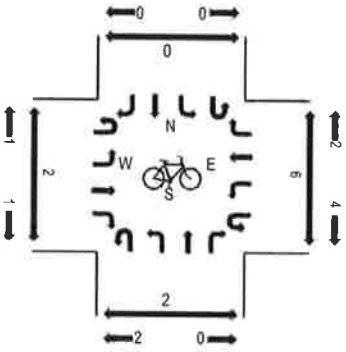
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 4 COURTENAY PKWY & FORTENBERRY ROAD PM
Date: Tuesday, October 18, 2022
Peak Hour: 04:45 PM - 05:45 PM
Peak 15-Minutes: 05:00 PM - 05:15 PM

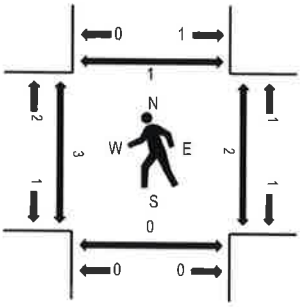
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	FORTENBERRY ROAD Eastbound				FORTENBERRY ROAD Westbound				COURTENAY PKWY Northbound				COURTENAY PKWY Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	0	1	0	0	18	0	41	0	0	145	7	0	23	187	0	422	1,690	0	1	0	0
4:15 PM	0	1	0	0	0	17	0	37	0	0	166	13	0	15	173	0	422	1,761	0	2	0	0
4:30 PM	0	0	0	0	0	23	0	29	0	0	186	13	0	9	157	0	417	1,825	0	2	0	0
4:45 PM	0	0	0	0	0	19	0	43	0	0	146	18	0	20	183	0	429	1,841	2	0	0	1
5:00 PM	0	0	0	1	0	23	0	59	0	3	165	13	0	17	190	1	493	1,782	1	0	0	0
5:15 PM	0	0	0	1	0	25	0	44	0	0	168	16	0	15	217	0	486		0	2	0	0
5:30 PM	0	1	0	0	0	19	0	22	0	0	183	12	0	9	187	0	433		0	0	0	0
5:45 PM	0	0	0	0	0	15	0	29	0	0	145	13	0	17	151	0	370		0	1	0	1

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	1	0	0	3	1	0	0	0	0	5
Lights	0	1	0	2	0	86	0	166	0	3	665	56	0	61	779	1	1,820
Mediums	0	0	0	0	0	0	0	1	0	0	9	2	0	0	4	0	16
Total	0	1	0	2	0	86	0	168	0	3	677	59	0	61	783	1	1,841

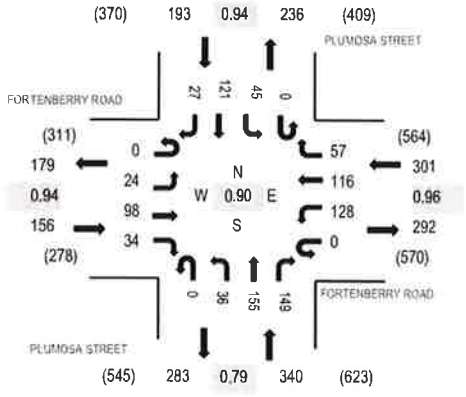
Heavy Vehicle Percentage and Peak Hour Factor

	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Heavy Vehicle %		0.0%				0.8%				2.0%				0.5%			1.1%
Heavy Vehicle %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.2%	0.0%	0.0%	1.8%	5.1%	0.0%	0.0%	0.5%	0.0%	1.1%
Peak Hour Factor		0.75				0.81				0.93				0.91			0.93
Peak Hour Factor	0.00	0.25	0.25	0.50	0.00	0.90	0.00	0.74	0.00	0.25	0.91	0.83	0.00	0.73	0.90	0.25	0.93

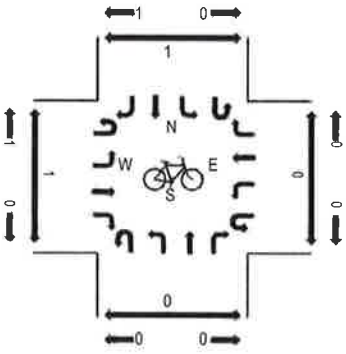
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 5 PLUMOSA STREET & FORTENBERRY ROAD PM
Date: Tuesday, October 18, 2022
Peak Hour: 04:30 PM - 05:30 PM
Peak 15-Minutes: 05:00 PM - 05:15 PM

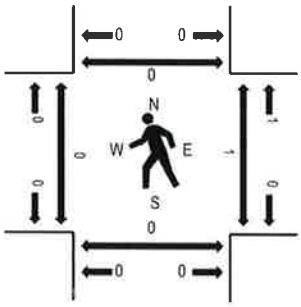
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	FORTENBERRY ROAD Eastbound				FORTENBERRY ROAD Westbound				PLUMOSA STREET Northbound				PLUMOSA STREET Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	4	21	9	0	36	23	15	0	7	23	35	0	15	32	8	228	941	0	1	0	0
4:15 PM	0	4	30	4	0	35	20	19	0	12	21	34	0	9	32	6	226	989	0	1	0	0
4:30 PM	0	5	22	11	0	29	29	16	0	9	34	42	0	14	29	11	251	990	0	0	0	0
4:45 PM	0	7	27	8	0	28	29	17	0	4	36	29	0	17	31	3	236	951	0	1	0	0
5:00 PM	0	6	27	10	0	30	24	13	0	15	48	44	0	9	33	0	276	994	0	0	0	0
5:15 PM	0	6	22	5	0	33	34	11	0	8	37	34	0	5	28	4	227		0	0	0	0
5:30 PM	0	1	15	9	0	33	14	15	0	5	32	46	0	6	32	4	212		0	0	0	0
5:45 PM	0	3	19	3	0	19	21	13	0	5	23	40	0	8	18	7	179		0	0	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Lights	0	24	97	34	0	126	116	56	0	36	154	145	0	43	120	27	978
Mediums	0	0	1	0	0	2	0	1	0	0	1	4	0	2	0	0	11
Total	0	24	98	34	0	128	116	57	0	36	155	149	0	45	121	27	990

Heavy Vehicle Percentage and Peak Hour Factor

	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Heavy Vehicle %		0.6%				1.0%				1.5%				1.6%			1.2%
Heavy Vehicle %	0.0%	0.0%	1.0%	0.0%	0.0%	1.6%	0.0%	1.8%	0.0%	0.0%	0.6%	2.7%	0.0%	4.4%	0.8%	0.0%	1.2%
Peak Hour Factor		0.94				0.96				0.79				0.94			0.90
Peak Hour Factor	0.00	0.86	0.88	0.77	0.00	0.87	0.85	0.88	0.00	0.67	0.81	0.89	0.00	0.81	0.95	0.66	0.90

APPENDIX D

FDOT's Florida Traffic Online (FTO) Data

2021 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL
CATEGORY: 7000 BREVARD COUNTYWIDE

WEEK	DATES	SF	MOCF: 0.95 PSCF
1	01/01/2021 - 01/02/2021	1.02	1.07
2	01/03/2021 - 01/09/2021	1.02	1.07
3	01/10/2021 - 01/16/2021	1.03	1.08
4	01/17/2021 - 01/23/2021	1.02	1.07
5	01/24/2021 - 01/30/2021	1.00	1.05
6	01/31/2021 - 02/06/2021	0.99	1.04
7	02/07/2021 - 02/13/2021	0.98	1.03
* 8	02/14/2021 - 02/20/2021	0.97	1.02
* 9	02/21/2021 - 02/27/2021	0.95	1.00
*10	02/28/2021 - 03/06/2021	0.94	0.99
*11	03/07/2021 - 03/13/2021	0.93	0.98
*12	03/14/2021 - 03/20/2021	0.91	0.96
*13	03/21/2021 - 03/27/2021	0.92	0.97
*14	03/28/2021 - 04/03/2021	0.94	0.99
*15	04/04/2021 - 04/10/2021	0.95	1.00
*16	04/11/2021 - 04/17/2021	0.96	1.01
*17	04/18/2021 - 04/24/2021	0.96	1.01
*18	04/25/2021 - 05/01/2021	0.97	1.02
*19	05/02/2021 - 05/08/2021	0.98	1.03
*20	05/09/2021 - 05/15/2021	0.98	1.03
21	05/16/2021 - 05/22/2021	0.99	1.04
22	05/23/2021 - 05/29/2021	1.00	1.05
23	05/30/2021 - 06/05/2021	1.00	1.05
24	06/06/2021 - 06/12/2021	1.01	1.06
25	06/13/2021 - 06/19/2021	1.01	1.06
26	06/20/2021 - 06/26/2021	1.02	1.07
27	06/27/2021 - 07/03/2021	1.03	1.08
28	07/04/2021 - 07/10/2021	1.04	1.09
29	07/11/2021 - 07/17/2021	1.04	1.09
30	07/18/2021 - 07/24/2021	1.05	1.11
31	07/25/2021 - 07/31/2021	1.06	1.12
32	08/01/2021 - 08/07/2021	1.06	1.12
33	08/08/2021 - 08/14/2021	1.07	1.13
34	08/15/2021 - 08/21/2021	1.07	1.13
35	08/22/2021 - 08/28/2021	1.07	1.13
36	08/29/2021 - 09/04/2021	1.06	1.12
37	09/05/2021 - 09/11/2021	1.05	1.11
38	09/12/2021 - 09/18/2021	1.04	1.09
39	09/19/2021 - 09/25/2021	1.04	1.09
40	09/26/2021 - 10/02/2021	1.03	1.08
41	10/03/2021 - 10/09/2021	1.03	1.08
42	10/10/2021 - 10/16/2021	1.02	1.07
43	10/17/2021 - 10/23/2021	1.03	1.08
44	10/24/2021 - 10/30/2021	1.03	1.08
45	10/31/2021 - 11/06/2021	1.03	1.08
46	11/07/2021 - 11/13/2021	1.03	1.08
47	11/14/2021 - 11/20/2021	1.03	1.08
48	11/21/2021 - 11/27/2021	1.03	1.08
49	11/28/2021 - 12/04/2021	1.03	1.08
50	12/05/2021 - 12/11/2021	1.02	1.07
51	12/12/2021 - 12/18/2021	1.02	1.07
52	12/19/2021 - 12/25/2021	1.02	1.07
53	12/26/2021 - 12/31/2021	1.03	1.08

* PEAK SEASON

08-MAR-2022 12:36:27 830UPD 5_7000_PKSEASON.TXT

APPENDIX E
Turning Movement Volume Worksheets

Intersection Development Worksheet

Kimley»Horn
Expect More. Experience Better.

Intersection #:	1		
Major Street:	SR 520	E/W	
Minor Street:	Courtenay Pkwy	N/S	

Existing Year:	2022
Buildout Year:	2025
Seasonal Factor:	1.03

TMC Year: 2022

AM Peak Hour Trips: IN = 35 OUT = 116

Weekday AM Peak Hour 8:00 AM - 9:00 AM	Courtenay Pkwy								SR 520							
	Northbound				Southbound				Eastbound				Westbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
TMC (2022)	0	198	471	65	1	213	418	382	0	430	737	195	2	113	478	132
Seasonal Factor		1.03				1.03				1.03				1.03		
Heavy Vehicle (%)	0%	2%	1%	2%	0%	2%	2%	2%	0%	2%	3%	4%	0%	1%	4%	2%
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Existing (2022)	**0**	**204**	**485**	**67**	**1**	**219**	**431**	**393**	**0**	**443**	**759**	**201**	**2**	**116**	**492**	**136**
Growth Rates		2.00%				2.00%				2.00%				2.00%		
Background (2025)	**0**	**216**	**514**	**71**	**1**	**232**	**457**	**417**	**0**	**470**	**805**	**213**	**2**	**123**	**522**	**144**
Project Assignment																
Ingress						9%	10%				26%	9%				
Egress		9%	10%												26%	9%
Project Trips	0	10	12	0	0	3	4	0	0	0	9	3	0	0	30	10
Project Buildout	**0**	**226**	**526**	**71**	**1**	**235**	**461**	**417**	**0**	**470**	**814**	**216**	**2**	**123**	**552**	**154**

PM Peak Hour Trips: IN = 88 OUT = 57

Weekday PM Peak Hour 4:30 PM - 5:30 PM	Courtenay Pkwy								SR 520							
	Northbound				Southbound				Eastbound				Westbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
TMC (2022)	0	333	530	66	0	290	502	461	0	425	815	151	5	123	869	264
Seasonal Factor		1.03				1.03				1.03				1.03		
Heavy Vehicle (%)	0%	2%	2%	0%	0%	0%	0%	1%	0%	0%	1%	1%	0%	1%	2%	1%
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Existing (2022)	**0**	**343**	**546**	**68**	**0**	**299**	**517**	**475**	**0**	**438**	**839**	**156**	**5**	**127**	**895**	**272**
Growth Rates		2.00%				2.00%				2.00%				2.00%		
Background (2025)	**0**	**364**	**578**	**72**	**0**	**317**	**548**	**504**	**0**	**464**	**889**	**165**	**5**	**135**	**949**	**288**
Project Assignment																
Ingress						9%	10%				26%	9%				
Egress		9%	10%												26%	9%
Project Trips	0	5	5	0	0	8	9	0	0	0	23	8	0	0	15	5
Project Buildout	**0**	**369**	**583**	**72**	**0**	**325**	**557**	**504**	**0**	**464**	**912**	**173**	**5**	**135**	**964**	**293**

Intersection Development Worksheet

Kimley»Horn
Expect More. Experience Better.

Intersection #:	2		
Major Street:	SR 520	E/W	
Minor Street:	Plumosa St	N/S	

Existing Year:	2022
Buildout Year:	2025
Seasonal Factor:	1.03

TMC Year: 2022

AM Peak Hour Trips: IN = 35 OUT = 116

Weekday AM Peak Hour 8:00 AM - 9:00 AM	Plumosa St								SR 520							
	Northbound				Southbound				Eastbound				Westbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
TMC (2022)	0	43	63	40	0	20	70	57	13	66	840	118	3	61	744	32
Seasonal Factor		1.03				1.03				1.03				1.03		
Heavy Vehicle (%)	0%	5%	3%	3%	0%	5%	4%	2%	0%	3%	4%	4%	0%	0%	3%	0%
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Existing (2022)	**0**	**44**	**65**	**41**	**0**	**21**	**72**	**59**	**13**	**68**	**865**	**122**	**3**	**63**	**766**	**33**
Growth Rates		2.00%				2.00%				2.00%				2.00%		
Background (2025)	**0**	**47**	**69**	**43**	**0**	**22**	**76**	**63**	**14**	**72**	**917**	**129**	**3**	**67**	**812**	**35**
Project Assignment																
Ingress							3%					35%				
Egress		35%	3%													
Project Trips	0	40	4	0	0	0	1	0	0	0	0	12	0	0	0	0
Project Buildout	**0**	**87**	**73**	**43**	**0**	**22**	**77**	**63**	**14**	**72**	**917**	**141**	**3**	**67**	**812**	**35**

PM Peak Hour Trips: IN = 88 OUT = 57

Weekday PM Peak Hour 4:15 PM - 5:15 PM	Plumosa St								SR 520							
	Northbound				Southbound				Eastbound				Westbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
TMC (2022)	0	92	91	58	0	54	69	101	23	90	1,128	89	15	68	1,187	93
Seasonal Factor		1.03				1.03				1.03				1.03		
Heavy Vehicle (%)	0%	2%	0%	2%	0%	4%	1%	1%	0%	6%	1%	2%	0%	0%	2%	3%
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	0.97	0.97	0.97	0.97	0.97
Existing (2022)	**0**	**95**	**94**	**60**	**0**	**56**	**71**	**104**	**24**	**93**	**1,162**	**92**	**15**	**70**	**1,223**	**96**
Growth Rates		2.00%				2.00%				2.00%				2.00%		
Background (2025)	**0**	**101**	**99**	**64**	**0**	**60**	**75**	**110**	**25**	**99**	**1,232**	**98**	**16**	**74**	**1,296**	**102**
Project Assignment																
Ingress							3%					35%				
Egress		35%	3%													
Project Trips	0	20	2	0	0	0	2	0	0	0	0	31	0	0	0	0
Project Buildout	**0**	**121**	**101**	**64**	**0**	**60**	**77**	**110**	**25**	**99**	**1,232**	**129**	**16**	**74**	**1,296**	**102**

Intersection Development Worksheet

Kimley»Horn
Expect More. Experience Better.

Intersection #:	3		
Major Street:	SR 520	E/W	
Minor Street:	Skyes Creek Pkwy	N/S	

Existing Year:	2022
Buildout Year:	2025
Seasonal Factor:	1.03

TMC Year: 2022

AM Peak Hour Trips: IN = 35 OUT = 116

Weekday AM Peak Hour 8:00 AM - 9:00 AM	Skyes Creek Pkwy								SR 520							
	Northbound				Southbound				Eastbound				Westbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
TMC (2022)	0	16	61	111	0	215	70	107	6	116	604	21	0	65	650	246
Seasonal Factor			1.03				1.03				1.03				1.03	
Heavy Vehicle (%)	0%	6%	2%	1%	0%	2%	1%	1%	0%	1%	5%	5%	0%	2%	3%	2%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Existing (2022)	**0**	**16**	**63**	**114**	**0**	**221**	**72**	**110**	**6**	**119**	**622**	**22**	**0**	**67**	**670**	**253**
Growth Rates			2.00%				2.00%				2.00%				2.00%	
Background (2025)	**0**	**17**	**67**	**121**	**0**	**234**	**76**	**117**	**6**	**126**	**659**	**23**	**0**	**71**	**710**	**268**
Project Assignment																
Ingress							6%									
Egress			6%	22%										22%		
Project Trips	0	0	7	25	0	0	2	0	0	0	0	0	0	8	0	0
Project Buildout	**0**	**17**	**74**	**146**	**0**	**234**	**78**	**117**	**6**	**126**	**659**	**23**	**0**	**79**	**710**	**268**

PM Peak Hour Trips: IN = 88 OUT = 57

Weekday PM Peak Hour 4:00 PM - 5:00 PM	Skyes Creek Pkwy								SR 520							
	Northbound				Southbound				Eastbound				Westbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
TMC (2022)	0	58	112	171	0	301	121	149	21	175	817	27	0	133	819	277
Seasonal Factor			1.03				1.03				1.03				1.03	
Heavy Vehicle (%)	0%	0%	2%	2%	0%	1%	3%	1%	0%	1%	1%	0%	0%	2%	3%	3%
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Existing (2022)	**0**	**60**	**115**	**176**	**0**	**310**	**125**	**153**	**22**	**180**	**842**	**28**	**0**	**137**	**844**	**285**
Growth Rates			2.00%				2.00%				2.00%				2.00%	
Background (2025)	**0**	**64**	**121**	**187**	**0**	**329**	**133**	**162**	**23**	**191**	**893**	**30**	**0**	**145**	**895**	**302**
Project Assignment																
Ingress							6%									
Egress			6%	22%										22%		
Project Trips	0	0	3	13	0	0	5	0	0	0	0	0	0	19	0	0
Project Buildout	**0**	**64**	**124**	**200**	**0**	**329**	**138**	**162**	**23**	**191**	**893**	**30**	**0**	**164**	**895**	**302**

Intersection Development Worksheet

Kimley»Horn
Expect More. Experience Better.

Intersection #:	4		*Existing Year:*	2022	*TMC Year:* 2022
Major Street:	Courtenay Pkwy	N/S	*Buildout Year:*	2025	
Minor Street:	Fortenberry Rd	E/W	*Seasonal Factor:*	1.03	

AM Peak Hour Trips: IN = 35 OUT = 116

Weekday AM Peak Hour 8:00 AM - 9:00 AM	Courtenay Pkwy								Fortenberry Rd							
	Northbound				Southbound				Eastbound				Westbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
TMC (2022)	0	1	591	63	0	88	577	0	0	1	0	0	0	40	0	69
Seasonal Factor		1.03				1.03				1.03				1.03		
Heavy Vehicle (%)	0%	0%	2%	2%	0%	0%	4%	0%	0%	0%	0%	0%	0%	5%	0%	4%
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	0.97	0.97	0.97	0.97	0.97
Existing (2022)	**0**	**1**	**609**	**65**	**0**	**91**	**594**	**0**	**0**	**1**	**0**	**0**	**0**	**41**	**0**	**71**
Growth Rates		2.00%				2.00%				2.00%				2.00%		
Background (2025)	**0**	**1**	**646**	**69**	**0**	**96**	**630**	**0**	**0**	**1**	**0**	**0**	**0**	**43**	**0**	**75**
Project Assignment																
Ingress				1%		19%										
Egress														1%		19%
Project Trips	0	0	0	0	0	7	0	0	0	0	0	0	0	1	0	22
Project Buildout	**0**	**1**	**646**	**69**	**0**	**103**	**630**	**0**	**0**	**1**	**0**	**0**	**0**	**44**	**0**	**97**

PM Peak Hour Trips: IN = 88 OUT = 57

Weekday PM Peak Hour 4:45 PM - 5:45 PM	Courtenay Pkwy								Fortenberry Rd							
	Northbound				Southbound				Eastbound				Westbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
TMC (2022)	0	3	677	59	0	61	783	1	0	1	0	2	0	86	0	168
Seasonal Factor		1.03				1.03				1.03				1.03		
Heavy Vehicle (%)	0%	0%	2%	5%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	1%
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Existing (2022)	**0**	**3**	**697**	**61**	**0**	**63**	**806**	**1**	**0**	**1**	**0**	**2**	**0**	**89**	**0**	**173**
Growth Rates		2.00%				2.00%				2.00%				2.00%		
Background (2025)	**0**	**3**	**738**	**65**	**0**	**67**	**854**	**1**	**0**	**1**	**0**	**2**	**0**	**94**	**0**	**183**
Project Assignment																
Ingress				1%		19%										
Egress														1%		19%
Project Trips	0	0	0	1	0	17	0	0	0	0	0	0	0	1	0	10
Project Buildout	**0**	**3**	**738**	**66**	**0**	**84**	**854**	**1**	**0**	**1**	**0**	**2**	**0**	**95**	**0**	**193**

Intersection Development Worksheet

Kimley»Horn
Expect More. Experience Better.

Intersection #:	5		*Existing Year:*	2022	*TMC Year:* 2022
Major Street:	Fortenberry Rd	E/W	*Buildout Year:*	2025	
Minor Street:	Plumosa St	N/S	*Seasonal Factor:*	1.03	

AM Peak Hour Trips: IN = 35 OUT = 116

Weekday AM Peak Hour 8:00 AM - 9:00 AM	Plumosa St								Fortenberry Rd							
	Northbound				Southbound				Eastbound				Westbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
TMC (2022)	0	14	121	119	0	21	164	23	0	12	52	42	0	81	35	20
Seasonal Factor		1.03				1.03				1.03				1.03		
Heavy Vehicle (%)	0%	0%	5%	0%	0%	0%	2%	9%	0%	0%	4%	0%	0%	3%	0%	5%
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Existing (2022)	**0**	**14**	**125**	**123**	**0**	**22**	**169**	**24**	**0**	**12**	**54**	**43**	**0**	**83**	**36**	**21**
Growth Rates		2.00%				2.00%				2.00%				2.00%		
Background (2025)	**0**	**15**	**133**	**130**	**0**	**23**	**179**	**25**	**0**	**13**	**57**	**46**	**0**	**88**	**38**	**22**
Project Assignment																
Ingress				11%		38%					20%					
Egress														11%	20%	38%
Project Trips	0	0	0	4	0	13	0	0	0	0	7	0	0	13	23	44
Project Buildout	**0**	**15**	**133**	**134**	**0**	**36**	**179**	**25**	**0**	**13**	**64**	**46**	**0**	**101**	**61**	**66**

PM Peak Hour Trips: IN = 88 OUT = 57

Weekday PM Peak Hour 4:30 PM - 5:30 PM	Plumosa St								Fortenberry Rd							
	Northbound				Southbound				Eastbound				Westbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
TMC (2022)	0	36	155	149	0	45	121	27	0	24	98	34	0	128	116	57
Seasonal Factor		1.03				1.03				1.03				1.03		
Heavy Vehicle (%)	0%	0%	1%	3%	0%	4%	1%	0%	0%	0%	1%	0%	0%	2%	0%	2%
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Existing (2022)	**0**	**37**	**160**	**153**	**0**	**46**	**125**	**28**	**0**	**25**	**101**	**35**	**0**	**132**	**119**	**59**
Growth Rates		2.00%				2.00%				2.00%				2.00%		
Background (2025)	**0**	**39**	**169**	**162**	**0**	**49**	**133**	**30**	**0**	**27**	**107**	**37**	**0**	**140**	**126**	**63**
Project Assignment																
Ingress				11%		38%					20%					
Egress														11%	20%	38%
Project Trips	0	0	0	10	0	33	0	0	0	0	18	0	0	6	11	22
Project Buildout	**0**	**39**	**169**	**172**	**0**	**82**	**133**	**30**	**0**	**27**	**125**	**37**	**0**	**146**	**137**	**85**

Intersection Development Worksheet

Kimley»Horn
Expect More. Experience Better.

Intersection #:	6		*Existing Year:*	2022	*TMC Year:* 2022
Major Street:	Fortenberry Rd	E/W	*Buildout Year:*	2025	
Minor Street:	Project Drwy #1	N/S	*Seasonal Factor:*	1.03	

AM Peak Hour Trips: IN = 35 OUT = 116

Weekday AM Peak Hour 8:00 AM - 9:00 AM	Project Drwy #1								Fortenberry Rd							
	Northbound				Southbound				Eastbound				Westbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
TMC (2022)	0	0	0	0	0	0	0	0	0	0	192	0	0	0	136	0
Seasonal Factor		1.03				1.03				1.03				1.03		
Heavy Vehicle (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Existing (2022)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**198**	**0**	**0**	**0**	**140**	**0**
Growth Rates		2.00%				2.00%				2.00%				2.00%		
Background (2025)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**210**	**0**	**0**	**0**	**148**	**0**
Project Assignment																
Ingress											23%	46%		10%		
Egress		46%		10%											23%	
Project Trips	0	53	0	11	0	0	0	0	0	0	8	16	0	4	27	0
Project Buildout	**0**	**53**	**0**	**11**	**0**	**0**	**0**	**0**	**0**	**0**	**218**	**16**	**0**	**4**	**175**	**0**

PM Peak Hour Trips: IN = 88 OUT = 57

Weekday PM Peak Hour 4:30 PM - 5:30 PM	Project Drwy #1								Fortenberry Rd							
	Northbound				Southbound				Eastbound				Westbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
TMC (2022)	0	0	0	0	0	0	0	0	0	0	292	0	0	0	301	0
Seasonal Factor		1.03				1.03				1.03				1.03		
Heavy Vehicle (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Existing (2022)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**301**	**0**	**0**	**0**	**310**	**0**
Growth Rates		2.00%				2.00%				2.00%				2.00%		
Background (2025)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**319**	**0**	**0**	**0**	**329**	**0**
Project Assignment																
Ingress											23%	46%		10%		
Egress		46%		10%											23%	
Project Trips	0	26	0	6	0	0	0	0	0	0	20	41	0	9	13	0
Project Buildout	**0**	**26**	**0**	**6**	**0**	**0**	**0**	**0**	**0**	**0**	**339**	**41**	**0**	**9**	**342**	**0**

Intersection Development Worksheet

Kimley»Horn
Expect More. Experience Better.

Intersection #:	7		*Existing Year:*	2022	*TMC Year:* 2022
Major Street:	Fortenberry Rd	E/W	*Buildout Year:*	2025	
Minor Street:	Harbor Woods Bou	N/S	*Seasonal Factor:*	1.03	

AM Peak Hour Trips: IN = 35 OUT = 116

PHF: 0.920

Weekday AM Peak Hour	Fortenberry Rd								Fortenberry Rd							
	Northbound				Southbound				Eastbound				Westbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
TMC (2022)	0	0	0	0	0	0	0	0	0	0	192	0	0	0	136	0
Seasonal Factor		1.03				1.03				1.03				1.03		
Heavy Vehicle (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Existing (2022)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**198**	**0**	**0**	**0**	**140**	**0**
Growth Rates		2.00%				2.00%				2.00%				2.00%		
Background (2025)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**210**	**0**	**0**	**0**	**148**	**0**
Project Assignment																
Ingress												23%		21%	10%	
Egress		23%		21%							10%					
Project Trips	0	27	0	24	0	0	0	0	0	0	11	8	0	7	4	0
Project Buildout	**0**	**27**	**0**	**24**	**0**	**0**	**0**	**0**	**0**	**0**	**221**	**8**	**0**	**7**	**152**	**0**

PM Peak Hour Trips: IN = 88 OUT = 57

PHF: 0.920

Weekday PM Peak Hour	Fortenberry Rd								Fortenberry Rd							
	Northbound				Southbound				Eastbound				Westbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
TMC (2022)	0	0	0	0	0	0	0	0	0	0	292	0	0	0	301	0
Seasonal Factor		1.03				1.03				1.03				1.03		
Heavy Vehicle (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Existing (2022)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**301**	**0**	**0**	**0**	**310**	**0**
Growth Rates		2.00%				2.00%				2.00%				2.00%		
Background (2025)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**319**	**0**	**0**	**0**	**329**	**0**
Project Assignment																
Ingress												23%		21%	10%	
Egress		23%		21%							10%					
Project Trips	0	13	0	12	0	0	0	0	0	0	6	20	0	18	9	0
Project Buildout	**0**	**13**	**0**	**12**	**0**	**0**	**0**	**0**	**0**	**0**	**325**	**20**	**0**	**18**	**338**	**0**

APPENDIX F
Space Coast TPO Traffic Counts

SPACE COAST TRANSPORTATION PLANNING ORGANIZATION TRAFFIC COUNTS: 2012 - 2021

ID	ROAD	SEGMENT (Sections)	2012 AADT	2013 AADT	2014 AADT	2015 AADT	2016 AADT	2017 AADT	2018 AADT	2019 AADT	2020 AADT	2021 AADT	Current MAV	Last Count Taken	Functional Classification
AREA: MERRITT ISLAND															
	CONE	S TROPICAL-PLUMOSA	5,145	5,085		5,295	5,205	5,495	5,330	3,920	4,880	4,510			
117	CONE	S Tropical-S Courtenay	4,390	4,440	NC	4,710	4,570	4,810	4,660	3,920	4,720	4,220	15,600	2/4/2021	Urban Minor Collector
115	CONE	S Courtenay-Plumosa	5,900	5,730	UC	5,880	5,640	6,180	6,000	NC	5,040	4,800	15,600	2/4/2021	Urban Minor Collector
137	CROCKETT	N TROPICAL-N COURTENAY	1,890	1,800	1,880	1,950	1,970	2,100	2,200	2,090	1,890	1,850	15,600	1/27/2021	Urban Minor Collector
	FORTENBERRY	S COURTENAY- SYKES CREEK	4,535	4,490		4,705	4,730	4,840	4,820	5,810	4,700	3,945			
119	FORTENBERRY	S Courtenay-Plumosa	4,000	4,150	UC	4,460	4,590	4,610	4,710	6,640	4,960	3,900	15,600	2/4/2021	Urban Major Collector
154	FORTENBERRY	Plumosa-Sykes Ck Pkwy	5,070	4,830	UC	4,950	4,870	5,070	4,930	4,980	4,440	3,990	15,600	2/17/2021	Urban Major Collector
158	HALL	N COURTENAY-N TROPICAL	2,890	2,960	UC	2,950	3,080	3,270	3,010	2,920	2,950	980	15,600	1/27/2021	Urban Minor Collector
138	LUCAS	N TROPICAL-N COURTENAY	2,720	2,970	2,740	3,020	3,180	3,570	3,060	2,730	3,410	3,090	15,600	1/27/2021	Urban Minor Collector
153	MERRITT AVE	N TROPICAL-N COURTENAY	2,690	2,720	3,140	3,280	3,240	3,330	3,470	3,470	3,940	3,240	15,600	1/27/2021	Urban Major Collector
	MERRITT AVE	N COURTENAY - SYKES CREEK	14,005	13,790	14,855	15,090	15,970	15,910	13,695	14,645	14,660	13,000			
103	MERRITT AVE	N Courtenay-Plumosa	13,310	13,170	14,080	14,550	NC	14,210	11,910	14,380	15,150	12,780	33,800	1/27/2021	Urban Major Collector
110	MERRITT AVE	Plumosa-Sykes Ck Pkwy	14,700	14,410	15,630	15,630	15,970	15,600	15,480	14,910	14,170	13,220	33,800	2/17/2021	Urban Major Collector
104	NEWFOUND HARB.	END-SR 520	6,610	6,700	6,900	6,950	6,820	7,030	7,040	5,860	6,260	5,400	15,600	2/17/2021	Urban Minor Collector
	N. BANANA RVR	SR 520-SR 528	9,683	9,763	9,737	10,070	10,078	10,850	10,785	8,878	8,802	7,862			
109	N. BANANA RVR	SR 520-SYKES CREEK	6,910	6,960	6,630	6,670	6,600	7,040	7,360	6,850	6,390	6,140	15,600	2/17/2021	Urban Minor Arterial
107	N. BANANA RVR	Sykes Creek-Central	12,240	12,110	12,400	12,900	12,040	13,600	13,250	12,890	12,300	11,680	15,600	2/17/2021	Urban Minor Arterial
102	N. BANANA RVR	Central-Martin Blvd.	9,900	10,220	10,180	10,640	10,770	11,410	11,330	11,200	11,920	10,050	15,600	2/17/2021	Urban Minor Arterial
602	N. BANANA RVR	Martin Blvd.-SR 528				10,550	10,900	11,350	11,200	11,250	11,900	10,010	15,600	2/17/2021	Urban Minor Arterial
613	N. BANANA RVR	SR 528-Sea Ray Drive						4,360	NC	2,200	1,500	1,430	15,600	2/17/2021	Urban Local
	N. COURTENAY	SR 520-SR 528	30,461	30,734	31,339	33,350	31,930	32,329	29,427	29,527	29,001	30,260			
130	N. COURTENAY	SR 520-Merritt	25,380	25,430	26,500	27,810	27,300	28,270	24,240	25,070	25,760	26,150	41,790	1/27/2021	Urban Principal Arterial-Other
131	N. COURTENAY	Merritt-Needle	34,780	34,880	35,440	37,970	35,290	34,940	31,940	32,440	30,220	32,130	41,790	1/27/2021	Urban Principal Arterial-Other
133	N. COURTENAY	Needle-Lucas	33,210	33,180	34,540	36,350	35,520	33,120	32,040	31,530	32,190	34,740	41,790	1/27/2021	Urban Principal Arterial-Other
135	N. COURTENAY	Lucas-Crockett	32,420	32,870	33,160	35,460	33,490	33,740	30,610	30,580	27,630	29,670	41,790	1/27/2021	Urban Principal Arterial-Other
136	N. COURTENAY	Crockett-Pioneer	29,970	30,080	30,230	32,920	30,870	31,730	29,450	28,280	26,690	28,680	41,790	1/27/2021	Urban Principal Arterial-Other
152	N. COURTENAY	Pioneer-S Ramps SR 528	30,120	30,850	30,540	33,730	32,850	32,310	30,010	31,700	33,250	31,170	41,790	1/27/2021	Urban Principal Arterial-Other
155	N. COURTENAY	S Ramps-N Ramps SR 528	27,350	27,850	28,960	29,210	28,190	32,190	27,700	27,090	27,270	29,280	41,790	1/27/2021	Urban Principal Arterial-Other
	N. COURTENAY	SR 528-SPACE COMMERCE WAY	14,103	14,213	14,017	15,580	14,573	15,963	14,840	14,833	14,900	12,893			
140	N. COURTENAY	N Ramps-Hall	20,900	20,420	19,090	22,300	21,170	22,960	20,840	21,200	18,780	18,040	41,790	1/27/2021	Urban Principal Arterial-Other
157	N. COURTENAY	Hall-N Tropical	13,040	13,570	14,270	15,090	13,490	15,220	14,890	14,320	15,610	14,330	41,790	1/27/2021	Urban Principal Arterial-Other
141	N. COURTENAY	N. Tropical-Space Commerce Way	8,370	8,650	8,690	9,350	9,060	9,710	8,790	8,980	10,310	6,310	40,300	1/27/2021	Rural Principal Arterial Other
	N. TROPICAL TR	SR 520-PIONEER	4,620	4,665	4,658	5,233	5,388	6,620	5,570	5,108	5,083	5,040			
147	N. TROPICAL TR	SR 520-Merritt	7,200	7,440	7,420	8,170	8,260	8,840	8,620	7,690	8,240	8,100	15,600	1/27/2021	Urban Major Collector
146	N. TROPICAL TR	Merritt-Lucas	5,600	5,660	5,550	6,190	6,320	6,380	6,880	6,660	6,270	6,110	15,600	1/27/2021	Urban Major Collector
145	N. TROPICAL TR	Lucas-Crockett	3,790	3,700	3,790	4,370	4,640	4,640	4,500	3,870	3,930	3,990	15,600	1/27/2021	Urban Major Collector
156	N. TROPICAL TR	Crockett-Pioneer	1,890	1,860	1,870	2,200	2,330	NC	2,280	2,210	1,890	1,960	15,600	1/27/2021	Urban Major Collector
	N. TROPICAL TR	GRANT-N COURTENAY	1,020	1,515	1,455	1,565	1,273	1,800	1,360	1,710	1,403	1,295			
144	N. TROPICAL TR	Grant-Hall	580	NC	UC	NC	660	NC	690	NC	760	NC	15,600	3/12/2020	Urban Major Collector
143	N. TROPICAL TR	Hall-Crisafulli	NC	1,670	1,530	1,640	1,720	1,800	1,710	1,680	1,560	870	15,600	1/27/2021	Urban Major Collector
142	N. TROPICAL TR	Crisafulli-N Courtenay	1,460	1,360	1,380	1,490	1,440	1,800	1,680	1,740	1,890	1,720	15,600	1/27/2021	Urban Major Collector
	PLUMOSA	CONE-MERRITT AVE	5,600	5,475		5,710	5,705	6,280	5,960	6,710	5,280	4,710			
116	PLUMOSA	Cone-Fortenberry	5,630	NC	NC	NC	5,010	NC	5,540	NC	4,820	NC	15,600	3/5/2020	Urban Minor Collector
120	PLUMOSA	Fortenberry-SR 520	NC	5,240	NC	5,190	NC	NC	NC	NC	NC	4,160	15,600	2/17/2021	Urban Minor Collector
106	PLUMOSA	SR 520-Merritt Ave	5,570	5,710	NC	6,230	6,400	6,280	6,380	6,710	5,740	5,260	15,600	2/4/2021	Urban Minor Collector
105	S. BANANA DR.	END-SR 520	1,930	2,230	1,920	2,200	2,120	2,390	2,520	2,080	2,230	2,340	12,480	2/17/2021	Urban Major Collector
	S. COURTENAY	PINEDA-FORTENBERRY	10,998	10,983	9,437	11,240	10,605	10,868	11,470	11,235	12,113	10,198			
112	S. TROPICAL TR	PINEDA-S COURTENAY	7,270	7,170	7,320	7,520	7,390	7,400	8,130	7,960	8,600	7,530	12,480	3/3/2021	Urban Minor Arterial
113	S. COURTENAY	S. Tropical Tr-Banana	9,370	9,140	9,160	9,340	8,820	9,500	9,490	9,680	10,300	8,890	15,600	2/17/2021	Urban Minor Arterial
114	S. COURTENAY	Banana-Cone	11,850	11,910	11,830	12,030	10,890	10,860	12,260	11,430	13,010	10,970	15,600	2/16/2021	Urban Minor Arterial
118	S. COURTENAY	Cone-Fortenberry	15,500	15,710	NC	16,070	15,320	15,710	16,000	15,870	16,540	13,400	15,600	2/4/2021	Urban Minor Arterial

*Note: 2016 AADT's Beaches area were counted twice in 2016 and the AADT listed is the average of the two counts.
NC=Not Counted; UC=Under Construction

SPACE COAST TRANSPORTATION PLANNING ORGANIZATION TRAFFIC COUNTS: 2012 - 2021

ID	ROAD	SEGMENT (Sections)	2012 AADT	2013 AADT	2014 AADT	2015 AADT	2016 AADT	2017 AADT	2018 AADT	2019 AADT	2020 AADT	2021 AADT	Current MAV	Last Count Taken	Functional Classification
AREA: MERRITT ISLAND															
	S. COURTENAY	Fortenberry-SR 520	12,587	12,400		13,097	12,103	13,100	18,760	18,625	17,805	17,350			
122	S. COURTENAY	Fortenberry-Magnolia	16,990	16,600	NC	18,570	17,500	17,210	17,900	17,710	17,160	16,840	33,800	2/4/2021	Urban Minor Arterial
139	S. COURTENAY	Magnolia-SR 520	19,410	19,300	UC	19,320	17,330	20,550	19,620	19,540	18,450	17,860	33,800	1/27/2021	Urban Minor Arterial
111	S. TROPICAL TR	S PATRICK-PINEDA	1,360	1,300	1,340	1,400	1,480	1,540	1,490	1,600	1,740	1,550	12,480	3/3/2021	Urban Major Collector
	S. TROPICAL TR	S COURTENAY-SR 520	4,097	4,283	4,353	4,510	4,377	4,610	4,627	4,253	4,887	4,363			
125	S. TROPICAL TR	S Courtenay-Plantation	1,150	1,260	1,160	1,210	1,270	1,220	1,350	1,320	1,520	1,290	12,480	3/3/2021	Urban Major Collector
126	S. TROPICAL TR	Plantation-Cone	6,670	6,760	6,780	7,030	6,780	7,090	7,140	6,590	7,410	6,730	12,480	3/3/2021	Urban Major Collector
124	S. TROPICAL TR	Cone-SR 520	4,470	4,830	5,120	5,290	5,080	5,520	5,390	4,850	5,730	5,070	12,480	2/4/2021	Urban Major Collector
603	SPACE COMMERCE WAY	SR 3-NASA CAUSEWAY				3,090	3,040	3,780	3,440	4,960	3,990	3,270	12,900	1/27/2021	Rural Principal Arterial Other
	SR 520	HUMPHREY BR-S. BANANA	30,878	32,220	33,311	34,200	32,467	30,929	29,694	29,844	30,794	30,016			
101	SR 520	Bridge-N.Tropical	NC	44,390	46,090	48,440	44,400	44,820	39,660	43,440	44,660	44,030	59,900	3/10/2021	Urban Principal Arterial-Other
148	SR 520	N.Tropical-SR 3	37,670	37,240	34,900	39,820	37,210	36,850	35,640	35,120	33,180	37,330	59,900	1/27/2021	Urban Principal Arterial-Other
97	SR 520	SR 3-Plaza ent	33,430	31,820	34,410	33,630	32,070	29,870	28,700	25,840	31,100	30,030	62,900	1/27/2021	Urban Principal Arterial-Other
98	SR 520	Plaza ent-Plumosa	30,530	31,860	34,130	33,790	31,600	29,940	30,490	31,230	27,800	29,680	62,900	2/4/2021	Urban Principal Arterial-Other
99	SR 520	Plumosa-Mall ent	32,560	30,560	32,780	32,140	31,640	28,750	25,300	28,870	26,780	28,180	62,900	3/3/2021	Urban Principal Arterial-Other
100	SR 520	Mall ent-SykesCrkPkw	26,270	26,010	28,740	27,140	24,810	23,660	24,130	23,280	25,190	23,830	62,900	2/17/2021	Urban Principal Arterial-Other
149	SR 520	Sykes-Newfound HrbDr	32,270	32,520	33,160	34,480	35,170	30,740	31,000	30,070	26,850	28,480	62,900	3/3/2021	Urban Principal Arterial-Other
150	SR 520	Newfound Hbr-N Banana	27,330	27,290	28,940	29,920	28,670	26,820	26,050	25,830	NC	24,780	62,900	2/17/2021	Urban Principal Arterial-Other
151	SR 520	N Banana-S Banana	26,960	28,290	26,650	28,440	26,430	26,910	26,280	24,920	NC	23,800	62,900	2/17/2021	Urban Principal Arterial-Other
	SR 528	US 1-SR 401	35,343	37,053	37,850	39,243	37,940	39,587	38,480	39,403	47,357	36,517			
128	SR 528	US 1-N COURTENAY	43,000	44,700	45,760	49,740	48,660	48,600	44,630	46,100	55,910	46,300	74,400	1/27/2021	Urban Principal Arterial-Other
129	SR 528	N Crtny-N Banana Rv Dr	32,770	33,630	36,360	32,570	31,070	36,810	37,340	37,570	44,790	35,050	74,400	1/27/2021	Urban Principal Arterial-Other
127	SR 528	N Banana Rv Dr-SR 401	30,260	32,830	31,430	35,420	34,090	33,350	33,470	34,540	41,370	28,200	74,400	3/3/2021	Urban Principal Arterial-Other
123	SYKES CREEK	FORTENBERRY-SR 520	5,490	5,610	NC	5,610	5,390	5,440	4,830	4,670	4,850	4,050	33,800	2/17/2021	Urban Major Collector
121	SYKES CREEK	SR 520-MERRITT	12,010	11,770	12,210	12,640	12,680	12,070	12,570	12,010	12,910	10,770	39,800	2/17/2021	Urban Major Collector
108	SYKES CREEK	MERRITT-N BANANA	9,700	9,890	NC	10,610	11,080	10,970	10,660	10,090	11,410	9,680	17,700	2/17/2021	Urban Major Collector

**Note: 2016 AADT's Beaches area were counted twice in 2016 and the AADT listed is the average of the two counts.*
NC=Not Counted; UC=Under Construction

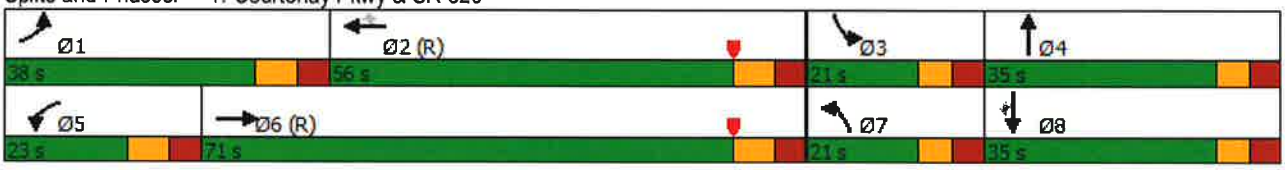
APPENDIX G
Synchro Outputs

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	443	759	118	492	136	204	485	220	431	393
Future Volume (vph)	443	759	118	492	136	204	485	220	431	393
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	1	6	5	2		7	4	3	8	
Permitted Phases					2					8
Detector Phase	1	6	5	2	2	7	4	3	8	8
Switch Phase										
Minimum Initial (s)	6.0	15.0	6.0	15.0	15.0	6.0	8.0	6.0	8.0	8.0
Minimum Split (s)	14.7	23.7	14.7	23.7	23.7	13.9	18.6	13.9	18.6	18.6
Total Split (s)	38.0	71.0	23.0	56.0	56.0	21.0	35.0	21.0	35.0	35.0
Total Split (%)	25.3%	47.3%	15.3%	37.3%	37.3%	14.0%	23.3%	14.0%	23.3%	23.3%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.1	4.1	4.1	4.1	4.1
All-Red Time (s)	3.9	3.9	3.9	3.9	3.9	3.8	3.8	3.8	3.8	3.8
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)	8.7	8.7	8.7	8.7	8.7	7.9	7.9	7.9	7.9	7.9
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	C-Max	None	None	None	None	None

Intersection Summary

Cycle Length: 150
Actuated Cycle Length: 150
Offset: 37 (25%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 1: Courtenay Pkwy & SR 520



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	443	759	201	118	492	136	204	485	67	220	431	393
Future Volume (veh/h)	443	759	201	118	492	136	204	485	67	220	431	393
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1856	1841	1885	1841	1870	1870	1885	1870	1870	1870	1870
Adj Flow Rate, veh/h	466	799	212	124	518	143	215	511	71	232	454	414
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	3	4	1	4	2	2	1	2	2	2	2
Cap, veh/h	526	1889	497	173	1861	587	261	556	77	277	641	503
Arrive On Green	0.15	0.47	0.47	0.02	0.12	0.12	0.08	0.18	0.18	0.08	0.18	0.18
Sat Flow, veh/h	3456	3993	1051	3483	5025	1585	3456	3160	437	3456	3554	2790
Grp Volume(v), veh/h	466	675	336	124	518	143	215	289	293	232	454	414
Grp Sat Flow(s),veh/h/ln	1728	1689	1666	1742	1675	1585	1728	1791	1806	1728	1777	1395
Q Serve(g_s), s	19.8	19.7	20.0	5.3	14.1	12.2	9.2	23.8	24.0	9.9	18.0	21.4
Cycle Q Clear(g_c), s	19.8	19.7	20.0	5.3	14.1	12.2	9.2	23.8	24.0	9.9	18.0	21.4
Prop In Lane	1.00		0.63	1.00		1.00	1.00		0.24	1.00		1.00
Lane Grp Cap(c), veh/h	526	1598	788	173	1861	587	261	315	318	277	641	503
V/C Ratio(X)	0.89	0.42	0.43	0.72	0.28	0.24	0.82	0.92	0.92	0.84	0.71	0.82
Avail Cap(c_a), veh/h	675	1598	788	332	1861	587	302	324	326	302	642	504
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.97	0.97	0.97	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	62.3	26.0	26.1	72.7	47.6	46.8	68.4	60.7	60.8	68.0	57.8	59.2
Incr Delay (d2), s/veh	11.1	0.8	1.7	5.3	0.4	1.0	14.9	29.4	30.4	17.3	3.6	10.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.4	7.9	8.1	2.5	6.4	5.4	4.6	13.3	13.6	5.0	8.4	8.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	73.4	26.8	27.8	78.0	48.0	47.8	83.2	90.1	91.3	85.3	61.3	69.7
LnGrp LOS	E	C	C	E	D	D	F	F	F	F	E	E
Approach Vol, veh/h		1477			785			797			1100	
Approach Delay, s/veh		41.8			52.7			88.7			69.5	
Approach LOS		D			D			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	31.6	64.2	19.9	34.3	16.1	79.7	19.2	35.0
Change Period (Y+Rc), s	* 8.7	* 8.7	* 7.9	* 7.9	* 8.7	* 8.7	* 7.9	* 7.9
Max Green Setting (Gmax), s	* 29	* 47	* 13	* 27	* 14	* 62	* 13	* 27
Max Q Clear Time (g_c+I1), s	21.8	16.1	11.9	26.0	7.3	22.0	11.2	23.4
Green Ext Time (p_c), s	1.0	3.9	0.1	0.4	0.2	7.4	0.1	1.6

Intersection Summary	
HCM 6th Ctrl Delay	60.2
HCM 6th LOS	E

Notes

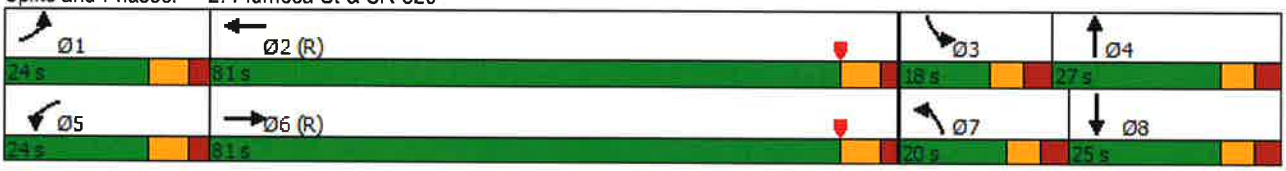
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	81	865	66	766	44	65	21	72
Future Volume (vph)	81	865	66	766	44	65	21	72
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	1	6	5	2	7	4	3	8
Permitted Phases								
Detector Phase	1	6	5	2	7	4	3	8
Switch Phase								
Minimum Initial (s)	6.0	15.0	6.0	15.0	6.0	8.0	6.0	8.0
Minimum Split (s)	13.1	22.1	13.1	22.1	13.4	15.4	13.4	15.4
Total Split (s)	24.0	81.0	24.0	81.0	20.0	27.0	18.0	25.0
Total Split (%)	16.0%	54.0%	16.0%	54.0%	13.3%	18.0%	12.0%	16.7%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.0	4.0	4.0	4.0
All-Red Time (s)	2.3	2.3	2.3	2.3	3.4	3.4	3.4	3.4
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.1	7.1	7.1	7.1	7.4	7.4	7.4	7.4
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	None	None	None

Intersection Summary

Cycle Length: 150
Actuated Cycle Length: 150
Offset: 111 (74%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow
Natural Cycle: 65
Control Type: Actuated-Coordinated

Splits and Phases: 2: Plumosa St & SR 520



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	81	865	122	66	766	33	44	65	41	21	72	59
Future Volume (veh/h)	81	865	122	66	766	33	44	65	41	21	72	59
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1841	1841	1900	1856	1900	1826	1856	1870	1826	1841	1870
Adj Flow Rate, veh/h	84	901	127	69	798	34	46	68	43	22	75	61
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	4	4	0	3	0	5	3	2	5	4	2
Cap, veh/h	105	2809	394	87	3090	131	59	110	70	42	88	71
Arrive On Green	0.02	0.21	0.21	0.10	1.00	1.00	0.03	0.10	0.10	0.02	0.09	0.09
Sat Flow, veh/h	1781	4453	625	1810	4983	212	1739	1063	672	1739	939	764
Grp Volume(v), veh/h	84	677	351	69	540	292	46	0	111	22	0	136
Grp Sat Flow(s),veh/h/ln	1781	1675	1728	1810	1689	1817	1739	0	1735	1739	0	1703
Q Serve(g_s), s	7.0	25.7	25.9	5.6	0.0	0.0	3.9	0.0	9.2	1.9	0.0	11.8
Cycle Q Clear(g_c), s	7.0	25.7	25.9	5.6	0.0	0.0	3.9	0.0	9.2	1.9	0.0	11.8
Prop In Lane	1.00		0.36	1.00		0.12	1.00		0.39	1.00		0.45
Lane Grp Cap(c), veh/h	105	2114	1090	87	2094	1127	59	0	180	42	0	159
V/C Ratio(X)	0.80	0.32	0.32	0.79	0.26	0.26	0.78	0.00	0.62	0.53	0.00	0.85
Avail Cap(c_a), veh/h	201	2114	1090	204	2094	1127	146	0	227	123	0	200
HCM Platoon Ratio	0.33	0.33	0.33	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.84	0.84	0.84	0.98	0.98	0.98	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	72.6	32.1	32.2	67.0	0.0	0.0	71.9	0.0	64.4	72.4	0.0	67.0
Incr Delay (d2), s/veh	11.0	0.3	0.7	14.3	0.3	0.5	19.0	0.0	3.4	9.9	0.0	24.2
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	0.0
%ile BackOfQ(50%),veh/ln	3.6	11.6	12.2	2.8	0.1	0.2	2.1	0.0	4.2	1.0	0.0	6.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	83.6	32.4	32.8	81.3	0.3	0.5	90.9	0.0	67.8	82.3	0.0	91.2
LnGrp LOS	F	C	C	F	A	A	F	A	E	F	A	F
Approach Vol, veh/h		1112			901			157			158	
Approach Delay, s/veh		36.4			6.6			74.6			90.0	
Approach LOS		D			A			E			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	100.1	11.0	22.9	14.3	101.7	12.5	21.4
Change Period (Y+Rc), s	* 7.1	* 7.1	7.4	7.4	* 7.1	* 7.1	7.4	7.4
Max Green Setting (Gmax), s	* 17	* 74	10.6	19.6	* 17	* 74	12.6	17.6
Max Q Clear Time (g_c+I1), s	9.0	2.0	3.9	11.2	7.6	27.9	5.9	13.8
Green Ext Time (p_c), s	0.1	5.7	0.0	0.3	0.1	7.6	0.0	0.2

Intersection Summary	
HCM 6th Ctrl Delay	31.1
HCM 6th LOS	C

Notes

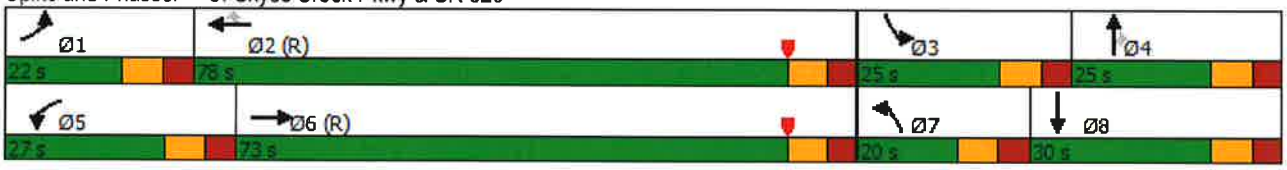
User approved pedestrian interval to be less than phase max green.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	125	622	67	670	253	16	63	114	221	72	110
Future Volume (vph)	125	622	67	670	253	16	63	114	221	72	110
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Free
Protected Phases	1	6	5	2		7	4		3	8	
Permitted Phases					2			4			Free
Detector Phase	1	6	5	2	2	7	4	4	3	8	
Switch Phase											
Minimum Initial (s)	6.0	15.0	6.0	15.0	15.0	6.0	8.0	8.0	6.0	8.0	
Minimum Split (s)	14.3	23.3	14.3	23.3	23.3	14.4	16.4	16.4	14.4	16.4	
Total Split (s)	22.0	73.0	27.0	78.0	78.0	20.0	25.0	25.0	25.0	30.0	
Total Split (%)	14.7%	48.7%	18.0%	52.0%	52.0%	13.3%	16.7%	16.7%	16.7%	20.0%	
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	
All-Red Time (s)	3.5	3.5	3.5	3.5	3.5	3.6	3.6	3.6	3.6	3.6	
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)	8.3	8.3	8.3	8.3	8.3	8.4	8.4	8.4	8.4	8.4	
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	C-Max	None	C-Max	C-Max	None	None	None	None	None	

Intersection Summary

Cycle Length: 150
Actuated Cycle Length: 150
Offset: 112 (75%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow
Natural Cycle: 70
Control Type: Actuated-Coordinated

Splits and Phases: 3: Skyes Creek Pkwy & SR 520



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	125	622	22	67	670	253	16	63	114	221	72	110
Future Volume (veh/h)	125	622	22	67	670	253	16	63	114	221	72	110
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1826	1826	1870	1856	1870	1811	1870	1885	1870	1885	1885
Adj Flow Rate, veh/h	136	676	24	73	728	275	17	68	124	240	78	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	1	5	5	2	3	2	6	2	1	2	1	1
Cap, veh/h	182	2789	99	132	2787	1535	35	324	146	289	291	
Arrive On Green	0.10	1.00	1.00	0.04	0.55	0.55	0.02	0.09	0.09	0.08	0.15	0.00
Sat Flow, veh/h	3483	4943	175	3456	5066	2790	1725	3554	1598	3456	1885	1598
Grp Volume(v), veh/h	136	454	246	73	728	275	17	68	124	240	78	0
Grp Sat Flow(s),veh/h/ln	1742	1662	1794	1728	1689	1395	1725	1777	1598	1728	1885	1598
Q Serve(g_s), s	5.7	0.0	0.0	3.1	11.3	7.4	1.5	2.7	11.5	10.3	5.5	0.0
Cycle Q Clear(g_c), s	5.7	0.0	0.0	3.1	11.3	7.4	1.5	2.7	11.5	10.3	5.5	0.0
Prop In Lane	1.00		0.10	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	182	1875	1013	132	2787	1535	35	324	146	289	291	
V/C Ratio(X)	0.75	0.24	0.24	0.55	0.26	0.18	0.49	0.21	0.85	0.83	0.27	
Avail Cap(c_a), veh/h	318	1875	1013	431	2787	1535	133	393	177	382	291	
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	66.2	0.0	0.0	70.9	17.7	16.8	72.7	63.2	67.2	67.7	55.9	0.0
Incr Delay (d2), s/veh	5.7	0.3	0.5	3.6	0.2	0.3	10.0	0.3	26.9	11.0	0.5	0.0
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	0.0
%ile BackOfQ(50%),veh/ln	2.5	0.1	0.2	1.4	4.4	2.4	0.7	1.2	5.7	4.9	2.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	71.9	0.3	0.5	74.5	17.9	17.1	82.7	63.5	94.0	78.7	56.4	0.0
LnGrp LOS	E	A	A	E	B	B	F	E	F	E	E	
Approach Vol, veh/h		836			1076			209			318	A
Approach Delay, s/veh		12.0			21.6			83.2			73.2	
Approach LOS		B			C			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.1	90.8	21.0	22.1	14.0	93.0	11.4	31.6
Change Period (Y+Rc), s	8.3	8.3	* 8.4	* 8.4	8.3	8.3	* 8.4	* 8.4
Max Green Setting (Gmax), s	13.7	69.7	* 17	* 17	18.7	64.7	* 12	* 22
Max Q Clear Time (g_c+I1), s	7.7	13.3	12.3	13.5	5.1	2.0	3.5	7.5
Green Ext Time (p_c), s	0.2	6.7	0.3	0.2	0.1	4.6	0.0	0.2

Intersection Summary	
HCM 6th Ctrl Delay	30.3
HCM 6th LOS	C

Notes

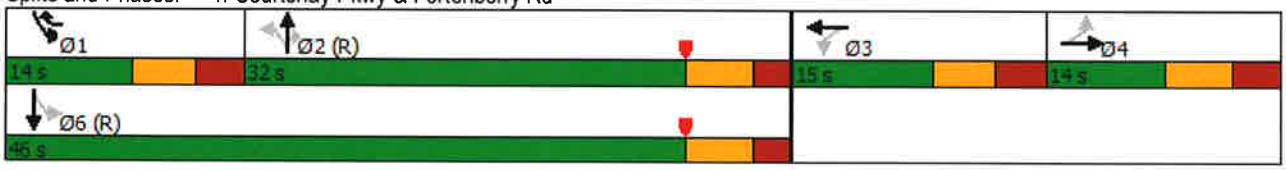
User approved pedestrian interval to be less than phase max green.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	1	0	41	0	71	1	609	65	91	594
Future Volume (vph)	1	0	41	0	71	1	609	65	91	594
Turn Type	Perm	NA	Perm	NA	Over	Perm	NA	Perm	pm+pt	NA
Protected Phases		4		3	1		2		1	6
Permitted Phases	4		3			2		2	6	
Detector Phase	4	4	3	3	1	2	2	2	1	6
Switch Phase										
Minimum Initial (s)	7.0	7.0	1.0	1.0	5.0	12.0	12.0	12.0	5.0	12.0
Minimum Split (s)	14.0	14.0	7.6	7.6	11.6	18.2	18.2	18.2	11.6	18.2
Total Split (s)	14.0	14.0	15.0	15.0	14.0	32.0	32.0	32.0	14.0	46.0
Total Split (%)	18.7%	18.7%	20.0%	20.0%	18.7%	42.7%	42.7%	42.7%	18.7%	61.3%
Yellow Time (s)	4.0	4.0	3.6	3.6	3.6	4.0	4.0	4.0	3.6	4.0
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	2.2	2.2	2.2	3.0	2.2
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		7.0		6.6	6.6	6.2	6.2	6.2	6.6	6.2
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lag	Lag	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	C-Max	C-Max	C-Max	None	C-Max

Intersection Summary

Cycle Length: 75
Actuated Cycle Length: 75
Offset: 32 (43%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 4: Courtenay Pkwy & Fortenberry Rd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	0	0	41	0	71	1	609	65	91	594	0
Future Volume (vph)	1	0	0	41	0	71	1	609	65	91	594	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.0			6.6	6.6	6.2	6.2	6.2	6.6	6.2	
Lane Util. Factor		1.00			1.00	1.00	1.00	0.95	1.00	1.00	0.95	
Frt		1.00			1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Flt Protected		0.95			0.95	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1805			1719	1553	1805	3539	1583	1805	3471	
Flt Permitted		1.00			1.00	1.00	0.42	1.00	1.00	0.33	1.00	
Satd. Flow (perm)		1900			1810	1553	798	3539	1583	625	3471	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	1	0	0	42	0	73	1	628	67	94	612	0
RTOR Reduction (vph)	0	0	0	0	0	68	0	0	34	0	0	0
Lane Group Flow (vph)	0	1	0	0	42	5	1	628	33	94	612	0
Heavy Vehicles (%)	0%	0%	0%	5%	0%	4%	0%	2%	2%	0%	4%	0%
Turn Type	Perm	NA		Perm	NA	Over	Perm	NA	Perm	pm+pt	NA	
Protected Phases		4			3	1		2		1	6	
Permitted Phases	4			3			2		2	6		
Actuated Green, G (s)		1.4			4.7	5.4	37.1	37.1	37.1	49.1	49.1	
Effective Green, g (s)		1.4			4.7	5.4	37.1	37.1	37.1	49.1	49.1	
Actuated g/C Ratio		0.02			0.06	0.07	0.49	0.49	0.49	0.65	0.65	
Clearance Time (s)		7.0			6.6	6.6	6.2	6.2	6.2	6.6	6.2	
Vehicle Extension (s)		3.0			3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		35			113	111	394	1750	783	494	2272	
v/s Ratio Prot						0.00		c0.18		0.01	c0.18	
v/s Ratio Perm		c0.00			c0.02		0.00		0.02	0.11		
v/c Ratio		0.03			0.37	0.05	0.00	0.36	0.04	0.19	0.27	
Uniform Delay, d1		36.1			33.7	32.4	9.6	11.6	9.8	5.3	5.4	
Progression Factor		1.00			1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		0.3			2.1	0.2	0.0	0.6	0.1	0.2	0.3	
Delay (s)		36.5			35.8	32.6	9.6	12.2	9.9	5.5	5.7	
Level of Service		D			D	C	A	B	A	A	A	
Approach Delay (s)		36.5			33.8			12.0			5.7	
Approach LOS		D			C			B			A	

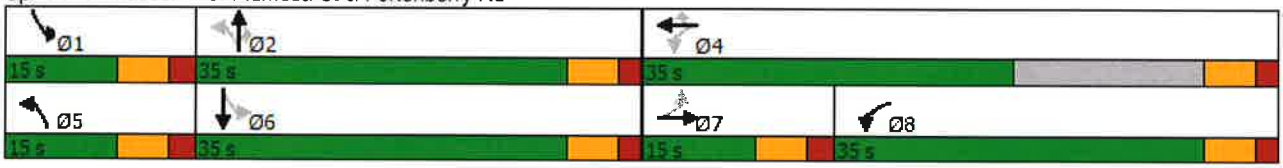
Intersection Summary			
HCM 2000 Control Delay	10.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.36		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	26.4
Intersection Capacity Utilization	48.4%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

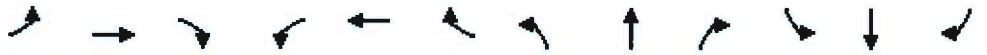
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	12	54	83	36	21	14	125	123	22	169
Future Volume (vph)	12	54	83	36	21	14	125	123	22	169
Turn Type	Perm	NA	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA
Protected Phases		7	8	4		5	2		1	6
Permitted Phases	7		4		4	2		2	6	
Detector Phase	7	7	8	4	4	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	7.0	7.0	7.0	5.0	14.0	14.0	5.0	14.0
Minimum Split (s)	11.0	11.0	13.0	13.0	13.0	11.0	20.0	20.0	11.0	20.0
Total Split (s)	15.0	15.0	35.0	35.0	35.0	15.0	35.0	35.0	15.0	35.0
Total Split (%)	15.0%	15.0%	35.0%	35.0%	35.0%	15.0%	35.0%	35.0%	15.0%	35.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lead	Lag			Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes			Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 64.9
Natural Cycle: 55
Control Type: Actuated-Uncoordinated

Splits and Phases: 5: Plumosa St & Fortenberry Rd





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	12	54	43	83	36	21	14	125	123	22	169	24
Future Volume (vph)	12	54	43	83	36	21	14	125	123	22	169	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0		6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.93		1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1805	1735		1770	1900	1538	1805	1810	1615	1805	1813	
Flt Permitted	0.73	1.00		0.69	1.00	1.00	0.63	1.00	1.00	0.65	1.00	
Satd. Flow (perm)	1389	1735		1283	1900	1538	1188	1810	1615	1233	1813	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	13	59	47	91	40	23	15	137	135	24	186	26
RTOR Reduction (vph)	0	29	0	0	0	17	0	0	70	0	4	0
Lane Group Flow (vph)	13	77	0	91	40	6	15	137	65	24	208	0
Heavy Vehicles (%)	0%	4%	0%	2%	0%	5%	0%	5%	0%	0%	2%	9%
Turn Type	Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases		7		8	4		5	2		1	6	
Permitted Phases	7			4		4	2		2	6		
Actuated Green, G (s)	6.2	6.2		17.7	17.7	17.7	35.8	34.7	34.7	38.0	35.8	
Effective Green, g (s)	6.2	6.2		17.7	17.7	17.7	35.8	34.7	34.7	38.0	35.8	
Actuated g/C Ratio	0.09	0.09		0.24	0.24	0.24	0.49	0.48	0.48	0.52	0.49	
Clearance Time (s)	6.0	6.0		6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	118	148		349	463	374	595	865	771	662	894	
v/s Ratio Prot		c0.04		c0.02	0.02		0.00	0.08		c0.00	c0.11	
v/s Ratio Perm	0.01			0.04		0.00	0.01		0.04	0.02		
v/c Ratio	0.11	0.52		0.26	0.09	0.01	0.03	0.16	0.08	0.04	0.23	
Uniform Delay, d1	30.7	31.8		22.3	21.2	20.8	9.4	10.7	10.3	8.4	10.5	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.4	3.0		0.4	0.1	0.0	0.0	0.4	0.2	0.0	0.6	
Delay (s)	31.1	34.8		22.7	21.3	20.8	9.4	11.1	10.5	8.4	11.1	
Level of Service	C	C		C	C	C	A	B	B	A	B	
Approach Delay (s)		34.4			22.1			10.7			10.9	
Approach LOS		C			C			B			B	

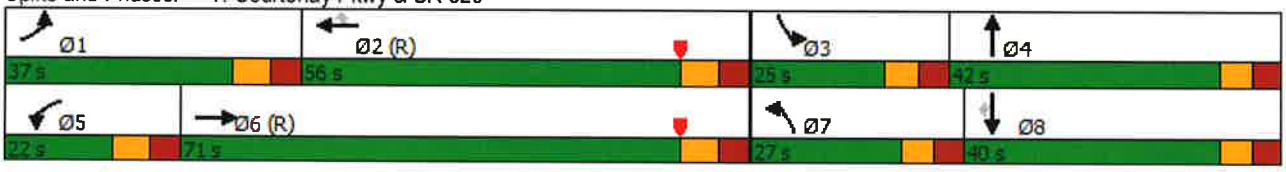
Intersection Summary			
HCM 2000 Control Delay	16.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.28		
Actuated Cycle Length (s)	72.6	Sum of lost time (s)	24.0
Intersection Capacity Utilization	39.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	438	839	132	895	272	343	546	299	517	475
Future Volume (vph)	438	839	132	895	272	343	546	299	517	475
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	1	6	5	2		7	4	3	8	
Permitted Phases					2					8
Detector Phase	1	6	5	2	2	7	4	3	8	8
Switch Phase										
Minimum Initial (s)	6.0	15.0	6.0	15.0	15.0	6.0	8.0	6.0	8.0	8.0
Minimum Split (s)	14.7	23.7	14.7	23.7	23.7	13.9	15.9	13.9	15.9	15.9
Total Split (s)	37.0	71.0	22.0	56.0	56.0	27.0	42.0	25.0	40.0	40.0
Total Split (%)	23.1%	44.4%	13.8%	35.0%	35.0%	16.9%	26.3%	15.6%	25.0%	25.0%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.1	4.1	4.1	4.1	4.1
All-Red Time (s)	3.9	3.9	3.9	3.9	3.9	3.8	3.8	3.8	3.8	3.8
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)	8.7	8.7	8.7	8.7	8.7	7.9	7.9	7.9	7.9	7.9
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	C-Max	None	None	None	None	None

Intersection Summary

Cycle Length: 160
Actuated Cycle Length: 160
Offset: 20 (13%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 1: Courtenay Pkwy & SR 520



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	438	839	156	132	895	272	343	546	68	299	517	475
Future Volume (veh/h)	438	839	156	132	895	272	343	546	68	299	517	475
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1885	1885	1885	1870	1885	1870	1870	1900	1900	1900	1885
Adj Flow Rate, veh/h	466	893	166	140	952	289	365	581	72	318	550	505
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	1	1	1	2	1	2	2	0	0	0	1
Cap, veh/h	520	1861	344	186	1694	530	405	669	83	360	706	550
Arrive On Green	0.15	0.43	0.43	0.02	0.11	0.11	0.12	0.21	0.21	0.10	0.20	0.20
Sat Flow, veh/h	3510	4363	807	3483	5106	1598	3456	3183	394	3510	3610	2812
Grp Volume(v), veh/h	466	701	358	140	952	289	365	324	329	318	550	505
Grp Sat Flow(s),veh/h/ln	1755	1716	1740	1742	1702	1598	1728	1777	1800	1755	1805	1406
Q Serve(g_s), s	20.9	23.6	23.7	6.4	28.3	27.4	16.7	28.2	28.3	14.3	23.1	28.2
Cycle Q Clear(g_c), s	20.9	23.6	23.7	6.4	28.3	27.4	16.7	28.2	28.3	14.3	23.1	28.2
Prop In Lane	1.00		0.46	1.00		1.00	1.00		0.22	1.00		1.00
Lane Grp Cap(c), veh/h	520	1463	742	186	1694	530	405	373	378	360	706	550
V/C Ratio(X)	0.90	0.48	0.48	0.75	0.56	0.55	0.90	0.87	0.87	0.88	0.78	0.92
Avail Cap(c_a), veh/h	621	1463	742	290	1694	530	413	379	384	375	724	564
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.83	0.83	0.83	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	66.9	33.1	33.1	77.5	60.2	59.8	69.7	61.0	61.1	70.9	61.1	63.1
Incr Delay (d2), s/veh	14.0	1.1	2.2	5.1	1.1	3.3	22.2	18.5	18.8	20.7	5.3	20.0
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	0.0
%ile BackOfQ(50%),veh/ln	10.2	9.9	10.3	3.1	13.2	12.3	8.6	14.6	14.9	7.5	11.1	11.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	80.9	34.2	35.4	82.6	61.3	63.1	91.9	79.6	79.9	91.6	66.4	83.1
LnGrp LOS	F	C	D	F	E	E	F	E	E	F	E	F
Approach Vol, veh/h		1525			1381			1018			1373	
Approach Delay, s/veh		48.8			63.9			84.1			78.4	
Approach LOS		D			E			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	32.4	61.8	24.3	41.5	17.2	76.9	26.6	39.2
Change Period (Y+Rc), s	* 8.7	* 8.7	* 7.9	* 7.9	* 8.7	* 8.7	* 7.9	* 7.9
Max Green Setting (Gmax), s	* 28	* 47	* 17	* 34	* 13	* 62	* 19	* 32
Max Q Clear Time (g_c+I1), s	22.9	30.3	16.3	30.3	8.4	25.7	18.7	30.2
Green Ext Time (p_c), s	0.8	6.7	0.1	1.4	0.2	7.7	0.1	1.1

Intersection Summary	
HCM 6th Ctrl Delay	67.2
HCM 6th LOS	E

Notes

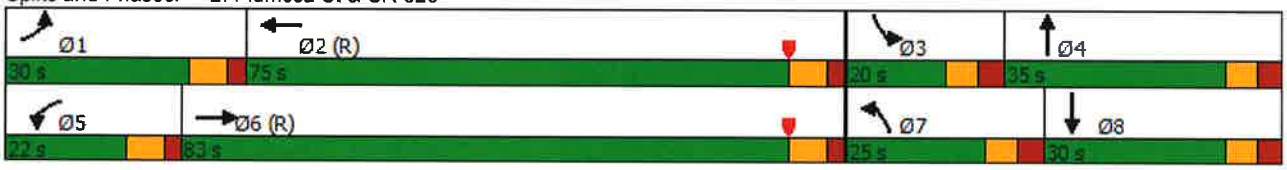
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	117	1162	85	1223	95	94	56	71
Future Volume (vph)	117	1162	85	1223	95	94	56	71
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	1	6	5	2	7	4	3	8
Permitted Phases								
Detector Phase	1	6	5	2	7	4	3	8
Switch Phase								
Minimum Initial (s)	6.0	15.0	6.0	15.0	6.0	8.0	6.0	8.0
Minimum Split (s)	13.2	22.2	13.2	22.2	13.4	15.4	13.4	15.4
Total Split (s)	30.0	83.0	22.0	75.0	25.0	35.0	20.0	30.0
Total Split (%)	18.8%	51.9%	13.8%	46.9%	15.6%	21.9%	12.5%	18.8%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.0	4.0	4.0	4.0
All-Red Time (s)	2.3	2.3	2.3	2.3	3.4	3.4	3.4	3.4
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.1	7.1	7.1	7.1	7.4	7.4	7.4	7.4
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Min	None	None	Max	None

Intersection Summary

Cycle Length: 160
Actuated Cycle Length: 160
Offset: 102 (64%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow
Natural Cycle: 75
Control Type: Actuated-Coordinated

Splits and Phases: 2: Plumosa St & SR 520



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	117	1162	92	85	1223	96	95	94	60	56	71	104
Future Volume (veh/h)	117	1162	92	85	1223	96	95	94	60	56	71	104
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1811	1885	1870	1900	1870	1856	1870	1900	1870	1841	1885	1885
Adj Flow Rate, veh/h	121	1198	95	88	1261	99	98	97	62	58	73	107
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	0.97
Percent Heavy Veh, %	6	1	2	0	2	3	2	0	2	4	1	1
Cap, veh/h	143	2791	221	107	2656	209	119	115	74	138	82	120
Arrive On Green	0.03	0.19	0.19	0.12	1.00	1.00	0.07	0.11	0.11	0.08	0.12	0.12
Sat Flow, veh/h	1725	4861	385	1810	4827	379	1781	1083	692	1753	691	1012
Grp Volume(v), veh/h	121	845	448	88	889	471	98	0	159	58	0	180
Grp Sat Flow(s),veh/h/ln	1725	1716	1816	1810	1702	1802	1781	0	1775	1753	0	1703
Q Serve(g_s), s	11.2	34.8	34.8	7.6	0.0	0.0	8.7	0.0	14.1	5.0	0.0	16.7
Cycle Q Clear(g_c), s	11.2	34.8	34.8	7.6	0.0	0.0	8.7	0.0	14.1	5.0	0.0	16.7
Prop In Lane	1.00		0.21	1.00		0.21	1.00		0.39	1.00		0.59
Lane Grp Cap(c), veh/h	143	1970	1043	107	1873	992	119	0	189	138	0	202
V/C Ratio(X)	0.84	0.43	0.43	0.82	0.47	0.47	0.83	0.00	0.84	0.42	0.00	0.89
Avail Cap(c_a), veh/h	247	1970	1043	169	1873	992	196	0	306	138	0	241
HCM Platoon Ratio	0.33	0.33	0.33	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.78	0.78	0.78	0.96	0.96	0.96	0.99	0.00	0.99	1.00	0.00	1.00
Uniform Delay (d), s/veh	76.8	41.7	41.7	69.7	0.0	0.0	73.8	0.0	70.1	70.2	0.0	69.5
Incr Delay (d2), s/veh	10.1	0.5	1.0	15.6	0.8	1.6	13.2	0.0	10.6	9.1	0.0	27.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.6	16.2	17.3	3.8	0.2	0.4	4.4	0.0	6.9	2.6	0.0	8.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	86.8	42.2	42.7	85.3	0.8	1.6	86.9	0.0	80.7	79.3	0.0	97.4
LnGrp LOS	F	D	D	F	A	A	F	A	F	E	A	F
Approach Vol, veh/h		1414			1448			257			238	
Approach Delay, s/veh		46.2			6.2			83.1			93.0	
Approach LOS		D			A			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.4	95.1	20.0	24.5	16.6	99.0	18.1	26.4
Change Period (Y+Rc), s	* 7.1	* 7.1	7.4	7.4	* 7.1	* 7.1	7.4	7.4
Max Green Setting (Gmax), s	* 23	* 68	12.6	27.6	* 15	* 76	17.6	22.6
Max Q Clear Time (g_c+I1), s	13.2	2.0	7.0	16.1	9.6	36.8	10.7	18.7
Green Ext Time (p_c), s	0.2	11.8	0.0	0.6	0.1	10.2	0.1	0.3

Intersection Summary	
HCM 6th Ctrl Delay	35.1
HCM 6th LOS	D

Notes

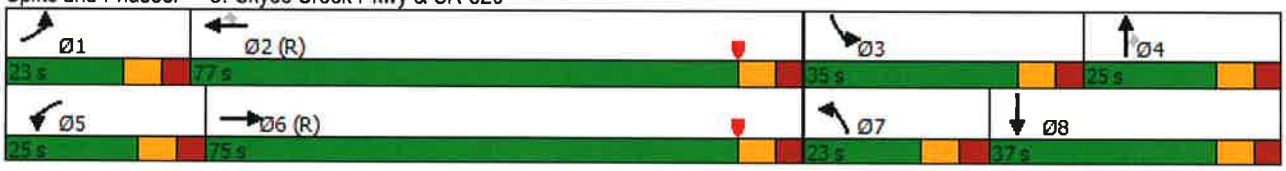
User approved pedestrian interval to be less than phase max green.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	202	842	137	844	285	60	115	176	310	125	153
Future Volume (vph)	202	842	137	844	285	60	115	176	310	125	153
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Free
Protected Phases	1	6	5	2		7	4		3	8	
Permitted Phases					2			4			Free
Detector Phase	1	6	5	2	2	7	4	4	3	8	
Switch Phase											
Minimum Initial (s)	6.0	15.0	6.0	15.0	15.0	6.0	8.0	8.0	6.0	8.0	
Minimum Split (s)	14.3	23.3	14.3	23.3	23.3	14.4	16.4	16.4	14.4	16.4	
Total Split (s)	23.0	75.0	25.0	77.0	77.0	23.0	25.0	25.0	35.0	37.0	
Total Split (%)	14.4%	46.9%	15.6%	48.1%	48.1%	14.4%	15.6%	15.6%	21.9%	23.1%	
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	
All-Red Time (s)	3.5	3.5	3.5	3.5	3.5	3.6	3.6	3.6	3.6	3.6	
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)	8.3	8.3	8.3	8.3	8.3	8.4	8.4	8.4	8.4	8.4	
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	C-Max	None	C-Max	C-Max	None	None	None	None	None	

Intersection Summary

Cycle Length: 160
Actuated Cycle Length: 160
Offset: 105 (66%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow
Natural Cycle: 70
Control Type: Actuated-Coordinated

Splits and Phases: 3: Skyes Creek Pkwy & SR 520



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	202	842	28	137	844	285	60	115	176	310	125	153
Future Volume (veh/h)	202	842	28	137	844	285	60	115	176	310	125	153
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1900	1870	1856	1856	1900	1870	1870	1885	1856	1885
Adj Flow Rate, veh/h	210	877	29	143	879	297	62	120	183	323	130	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	1	1	0	2	3	3	0	2	2	1	3	1
Cap, veh/h	252	2683	89	189	2567	1402	79	369	164	378	313	
Arrive On Green	0.14	1.00	1.00	0.05	0.51	0.51	0.04	0.10	0.10	0.11	0.17	0.00
Sat Flow, veh/h	3483	5117	169	3456	5066	2768	1810	3554	1585	3483	1856	1598
Grp Volume(v), veh/h	210	588	318	143	879	297	62	120	183	323	130	0
Grp Sat Flow(s),veh/h/ln	1742	1716	1855	1728	1689	1384	1810	1777	1585	1742	1856	1598
Q Serve(g_s), s	9.4	0.0	0.0	6.5	16.6	9.5	5.4	5.0	16.6	14.6	10.0	0.0
Cycle Q Clear(g_c), s	9.4	0.0	0.0	6.5	16.6	9.5	5.4	5.0	16.6	14.6	10.0	0.0
Prop In Lane	1.00		0.09	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	252	1799	973	189	2567	1402	79	369	164	378	313	
V/C Ratio(X)	0.83	0.33	0.33	0.76	0.34	0.21	0.78	0.33	1.11	0.85	0.42	
Avail Cap(c_a), veh/h	320	1799	973	361	2567	1402	165	369	164	579	332	
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.88	0.88	0.88	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	67.5	0.0	0.0	74.6	23.6	21.8	75.7	66.5	71.7	70.1	59.5	0.0
Incr Delay (d2), s/veh	12.4	0.4	0.8	6.1	0.4	0.3	15.3	0.5	103.6	7.7	0.9	0.0
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	0.0
%ile BackOfQ(50%),veh/ln	4.3	0.1	0.2	3.0	6.6	3.1	2.9	2.3	11.4	6.8	4.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	79.9	0.4	0.8	80.6	23.9	22.2	91.0	67.0	175.3	77.8	60.4	0.0
LnGrp LOS	E	A	A	F	C	C	F	E	F	E	E	
Approach Vol, veh/h		1116			1319			365			453	A
Approach Delay, s/veh		15.5			29.7			125.4			72.8	
Approach LOS		B			C			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.9	89.4	25.8	25.0	17.0	92.2	15.4	35.4
Change Period (Y+Rc), s	8.3	8.3	* 8.4	* 8.4	8.3	8.3	* 8.4	* 8.4
Max Green Setting (Gmax), s	14.7	68.7	* 27	* 17	16.7	66.7	* 15	* 29
Max Q Clear Time (g_c+I1), s	11.4	18.6	16.6	18.6	8.5	2.0	7.4	12.0
Green Ext Time (p_c), s	0.2	8.4	0.8	0.0	0.2	6.4	0.1	0.5

Intersection Summary	
HCM 6th Ctrl Delay	41.6
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	1	0	89	0	173	3	697	61	63	806
Future Volume (vph)	1	0	89	0	173	3	697	61	63	806
Turn Type	Perm	NA	Perm	NA	Over	Perm	NA	Perm	pm+pt	NA
Protected Phases		4		3	1		2		1	6
Permitted Phases	4		3			2		2	6	
Detector Phase	4	4	3	3	1	2	2	2	1	6
Switch Phase										
Minimum Initial (s)	7.0	7.0	7.0	7.0	5.0	12.0	12.0	12.0	5.0	12.0
Minimum Split (s)	14.0	14.0	13.6	13.6	11.6	18.2	18.2	18.2	11.6	18.2
Total Split (s)	16.0	16.0	16.0	16.0	14.0	34.0	34.0	34.0	14.0	48.0
Total Split (%)	20.0%	20.0%	20.0%	20.0%	17.5%	42.5%	42.5%	42.5%	17.5%	60.0%
Yellow Time (s)	4.0	4.0	3.6	3.6	3.6	4.0	4.0	4.0	3.6	4.0
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	2.2	2.2	2.2	3.0	2.2
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		7.0		6.6	6.6	6.2	6.2	6.2	6.6	6.2
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lag	Lag	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	C-Max	C-Max	C-Max	None	C-Max

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 57.8 (72%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
Natural Cycle: 65
Control Type: Actuated-Coordinated

Splits and Phases: 4: Courtenay Pkwy & Fortenberry Rd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	0	2	89	0	173	3	697	61	63	806	1
Future Volume (vph)	1	0	2	89	0	173	3	697	61	63	806	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.0			6.6	6.6	6.2	6.2	6.2	6.6	6.2	
Lane Util. Factor		1.00			1.00	1.00	1.00	0.95	1.00	1.00	0.95	
Frt		0.91			1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Flt Protected		0.98			0.95	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1701			1805	1599	1805	3539	1538	1805	3574	
Flt Permitted		1.00			0.43	1.00	0.33	1.00	1.00	0.26	1.00	
Satd. Flow (perm)		1729			809	1599	621	3539	1538	489	3574	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	1	0	2	96	0	186	3	749	66	68	867	1
RTOR Reduction (vph)	0	3	0	0	0	170	0	0	36	0	0	0
Lane Group Flow (vph)	0	0	0	0	96	16	3	749	30	68	868	0
Heavy Vehicles (%)	0%	0%	0%	0%	0%	1%	0%	2%	5%	0%	1%	0%
Turn Type	Perm	NA		Perm	NA	Over	Perm	NA	Perm	pm+pt	NA	
Protected Phases		4			3	1		2		1	6	
Permitted Phases	4			3			2		2	6		
Actuated Green, G (s)		1.4			9.4	6.8	36.0	36.0	36.0	49.4	49.4	
Effective Green, g (s)		1.4			9.4	6.8	36.0	36.0	36.0	49.4	49.4	
Actuated g/C Ratio		0.02			0.12	0.08	0.45	0.45	0.45	0.62	0.62	
Clearance Time (s)		7.0			6.6	6.6	6.2	6.2	6.2	6.6	6.2	
Vehicle Extension (s)		3.0			3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		30			95	135	279	1592	692	413	2206	
v/s Ratio Prot						0.01		c0.21		0.01	c0.24	
v/s Ratio Perm		c0.00			c0.12		0.00		0.02	0.09		
v/c Ratio		0.00			1.01	0.12	0.01	0.47	0.04	0.16	0.39	
Uniform Delay, d1		38.6			35.3	33.8	12.2	15.3	12.3	7.2	7.7	
Progression Factor		1.00			1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		0.0			95.2	0.4	0.1	1.0	0.1	0.2	0.5	
Delay (s)		38.6			130.5	34.2	12.2	16.4	12.5	7.4	8.3	
Level of Service		D			F	C	B	B	B	A	A	
Approach Delay (s)		38.6			67.0			16.0			8.2	
Approach LOS		D			E			B			A	

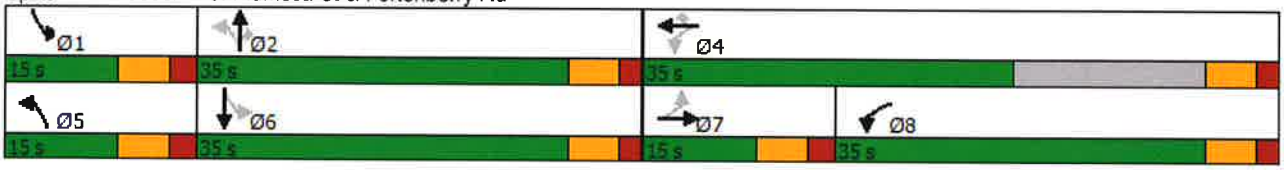
Intersection Summary			
HCM 2000 Control Delay	19.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	26.4
Intersection Capacity Utilization	59.7%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	25	101	132	119	59	37	160	153	46	125
Future Volume (vph)	25	101	132	119	59	37	160	153	46	125
Turn Type	Perm	NA	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA
Protected Phases		7	8	4		5	2		1	6
Permitted Phases	7		4		4	2		2	6	
Detector Phase	7	7	8	4	4	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	7.0	7.0	7.0	5.0	14.0	14.0	5.0	14.0
Minimum Split (s)	11.0	11.0	13.0	13.0	13.0	11.0	20.0	20.0	11.0	20.0
Total Split (s)	15.0	15.0	35.0	35.0	35.0	15.0	35.0	35.0	15.0	35.0
Total Split (%)	15.0%	15.0%	35.0%	35.0%	35.0%	15.0%	35.0%	35.0%	15.0%	35.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lead	Lag			Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes			Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 71
Natural Cycle: 55
Control Type: Actuated-Uncoordinated

Splits and Phases: 5: Plumosa St & Fortenberry Rd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	25	101	35	132	119	59	37	160	153	46	125	28
Future Volume (vph)	25	101	35	132	119	59	37	160	153	46	125	28
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0		6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.96		1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.97	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1805	1813		1770	1900	1583	1805	1881	1568	1736	1833	
Flt Permitted	0.67	1.00		0.66	1.00	1.00	0.65	1.00	1.00	0.64	1.00	
Satd. Flow (perm)	1278	1813		1231	1900	1583	1234	1881	1568	1174	1833	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	28	112	39	147	132	66	41	178	170	51	139	31
RTOR Reduction (vph)	0	12	0	0	0	46	0	0	102	0	7	0
Lane Group Flow (vph)	28	139	0	147	132	20	41	178	68	51	163	0
Heavy Vehicles (%)	0%	1%	0%	2%	0%	2%	0%	1%	3%	4%	1%	0%
Turn Type	Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases		7		8	4		5	2		1	6	
Permitted Phases	7			4		4	2		2	6		
Actuated Green, G (s)	9.0	9.0		22.4	22.4	22.4	33.1	29.3	29.3	33.3	29.4	
Effective Green, g (s)	9.0	9.0		22.4	22.4	22.4	33.1	29.3	29.3	33.3	29.4	
Actuated g/C Ratio	0.12	0.12		0.30	0.30	0.30	0.45	0.40	0.40	0.45	0.40	
Clearance Time (s)	6.0	6.0		6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	156	221		428	578	481	584	748	624	560	732	
v/s Ratio Prot		c0.08		c0.03	0.07		0.00	c0.09		c0.00	0.09	
v/s Ratio Perm	0.02			0.07		0.01	0.03		0.04	0.04		
v/c Ratio	0.18	0.63		0.34	0.23	0.04	0.07	0.24	0.11	0.09	0.22	
Uniform Delay, d1	29.0	30.7		20.2	19.1	18.0	11.4	14.7	13.9	11.4	14.6	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.6	5.5		0.5	0.2	0.0	0.1	0.7	0.4	0.1	0.7	
Delay (s)	29.5	36.2		20.7	19.3	18.1	11.5	15.5	14.3	11.4	15.3	
Level of Service	C	D		C	B	B	B	B	B	B	B	
Approach Delay (s)		35.1			19.7			14.5			14.4	
Approach LOS		D			B			B			B	

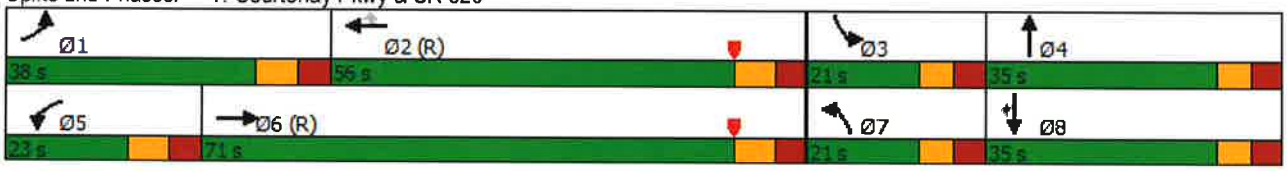
Intersection Summary			
HCM 2000 Control Delay	19.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.32		
Actuated Cycle Length (s)	73.6	Sum of lost time (s)	24.0
Intersection Capacity Utilization	50.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	470	805	125	522	144	216	514	233	457	417
Future Volume (vph)	470	805	125	522	144	216	514	233	457	417
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	1	6	5	2		7	4	3	8	
Permitted Phases					2					8
Detector Phase	1	6	5	2	2	7	4	3	8	8
Switch Phase										
Minimum Initial (s)	6.0	15.0	6.0	15.0	15.0	6.0	8.0	6.0	8.0	8.0
Minimum Split (s)	14.7	23.7	14.7	23.7	23.7	13.9	18.6	13.9	18.6	18.6
Total Split (s)	38.0	71.0	23.0	56.0	56.0	21.0	35.0	21.0	35.0	35.0
Total Split (%)	25.3%	47.3%	15.3%	37.3%	37.3%	14.0%	23.3%	14.0%	23.3%	23.3%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.1	4.1	4.1	4.1	4.1
All-Red Time (s)	3.9	3.9	3.9	3.9	3.9	3.8	3.8	3.8	3.8	3.8
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)	8.7	8.7	8.7	8.7	8.7	7.9	7.9	7.9	7.9	7.9
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	C-Max	None	None	None	None	None

Intersection Summary

Cycle Length: 150
Actuated Cycle Length: 150
Offset: 37 (25%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 1: Courtenay Pkwy & SR 520



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	470	805	213	125	522	144	216	514	71	233	457	417
Future Volume (veh/h)	470	805	213	125	522	144	216	514	71	233	457	417
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1856	1841	1885	1841	1870	1870	1885	1870	1870	1870	1870
Adj Flow Rate, veh/h	495	847	224	132	549	152	227	541	75	245	481	439
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	3	4	1	4	2	2	1	2	2	2	2
Cap, veh/h	554	1847	485	181	1779	561	272	571	79	289	659	517
Arrive On Green	0.16	0.46	0.46	0.02	0.12	0.12	0.08	0.18	0.18	0.08	0.19	0.19
Sat Flow, veh/h	3456	3994	1050	3483	5025	1585	3456	3161	437	3456	3554	2790
Grp Volume(v), veh/h	495	715	356	132	549	152	227	306	310	245	481	439
Grp Sat Flow(s),veh/h/ln	1728	1689	1667	1742	1675	1585	1728	1791	1807	1728	1777	1395
Q Serve(g_s), s	21.1	21.7	21.9	5.7	15.0	13.1	9.7	25.3	25.5	10.5	19.1	22.8
Cycle Q Clear(g_c), s	21.1	21.7	21.9	5.7	15.0	13.1	9.7	25.3	25.5	10.5	19.1	22.8
Prop In Lane	1.00		0.63	1.00		1.00	1.00		0.24	1.00		1.00
Lane Grp Cap(c), veh/h	554	1561	771	181	1779	561	272	324	326	289	659	517
V/C Ratio(X)	0.89	0.46	0.46	0.73	0.31	0.27	0.83	0.95	0.95	0.85	0.73	0.85
Avail Cap(c_a), veh/h	675	1561	771	332	1779	561	302	324	326	302	659	517
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.96	0.96	0.96	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	61.7	27.5	27.6	72.7	49.4	48.6	68.1	60.7	60.8	67.8	57.5	59.1
Incr Delay (d2), s/veh	12.5	1.0	2.0	5.3	0.4	1.1	16.6	35.8	36.8	19.1	4.1	12.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.0	8.8	8.9	2.7	6.8	5.8	4.9	14.7	15.0	5.4	8.9	8.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	74.3	28.5	29.5	78.0	49.9	49.7	84.7	96.5	97.6	86.9	61.7	71.6
LnGrp LOS	E	C	C	E	D	D	F	F	F	F	E	E
Approach Vol, veh/h		1566			833			843			1165	
Approach Delay, s/veh		43.2			54.3			93.7			70.7	
Approach LOS		D			D			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	32.8	61.8	20.4	35.0	16.5	78.1	19.7	35.7
Change Period (Y+Rc), s	* 8.7	* 8.7	* 7.9	* 7.9	* 8.7	* 8.7	* 7.9	* 7.9
Max Green Setting (Gmax), s	* 29	* 47	* 13	* 27	* 14	* 62	* 13	* 27
Max Q Clear Time (g_c+I1), s	23.1	17.0	12.5	27.5	7.7	23.9	11.7	24.8
Green Ext Time (p_c), s	1.0	4.2	0.1	0.0	0.2	8.0	0.1	1.1

Intersection Summary	
HCM 6th Ctrl Delay	62.2
HCM 6th LOS	E

Notes

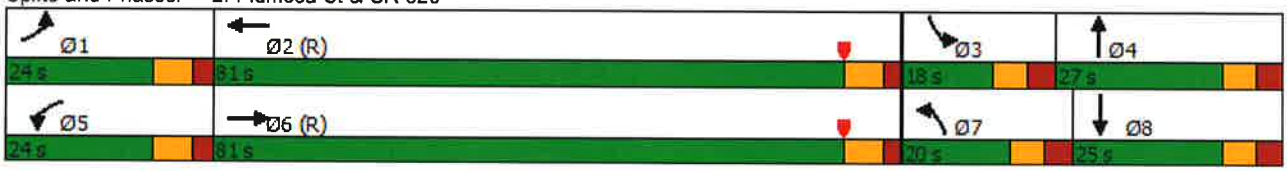
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	86	917	70	812	47	69	22	76
Future Volume (vph)	86	917	70	812	47	69	22	76
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	1	6	5	2	7	4	3	8
Permitted Phases								
Detector Phase	1	6	5	2	7	4	3	8
Switch Phase								
Minimum Initial (s)	6.0	15.0	6.0	15.0	6.0	8.0	6.0	8.0
Minimum Split (s)	13.1	22.1	13.1	22.1	13.4	15.4	13.4	15.4
Total Split (s)	24.0	81.0	24.0	81.0	20.0	27.0	18.0	25.0
Total Split (%)	16.0%	54.0%	16.0%	54.0%	13.3%	18.0%	12.0%	16.7%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.0	4.0	4.0	4.0
All-Red Time (s)	2.3	2.3	2.3	2.3	3.4	3.4	3.4	3.4
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.1	7.1	7.1	7.1	7.4	7.4	7.4	7.4
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	None	None	None

Intersection Summary

Cycle Length: 150
Actuated Cycle Length: 150
Offset: 111 (74%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow
Natural Cycle: 65
Control Type: Actuated-Coordinated

Splits and Phases: 2: Plumosa St & SR 520



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	86	917	129	70	812	35	47	69	43	22	76	63
Future Volume (veh/h)	86	917	129	70	812	35	47	69	43	22	76	63
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1841	1841	1900	1856	1900	1826	1856	1870	1826	1841	1870
Adj Flow Rate, veh/h	90	955	134	73	846	36	49	72	45	23	79	66
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	4	4	0	3	0	5	3	2	5	4	2
Cap, veh/h	111	2768	387	92	3037	129	63	118	73	43	91	76
Arrive On Green	0.04	0.42	0.42	0.10	1.00	1.00	0.04	0.11	0.11	0.02	0.10	0.10
Sat Flow, veh/h	1781	4455	623	1810	4983	212	1739	1068	667	1739	927	774
Grp Volume(v), veh/h	90	717	372	73	573	309	49	0	117	23	0	145
Grp Sat Flow(s),veh/h/ln	1781	1675	1729	1810	1689	1817	1739	0	1735	1739	0	1701
Q Serve(g_s), s	7.5	21.9	22.0	5.9	0.0	0.0	4.2	0.0	9.7	2.0	0.0	12.6
Cycle Q Clear(g_c), s	7.5	21.9	22.0	5.9	0.0	0.0	4.2	0.0	9.7	2.0	0.0	12.6
Prop In Lane	1.00		0.36	1.00		0.12	1.00		0.38	1.00		0.46
Lane Grp Cap(c), veh/h	111	2081	1074	92	2058	1108	63	0	191	43	0	168
V/C Ratio(X)	0.81	0.34	0.35	0.80	0.28	0.28	0.78	0.00	0.61	0.54	0.00	0.86
Avail Cap(c_a), veh/h	201	2081	1074	204	2058	1108	146	0	227	123	0	200
HCM Platoon Ratio	0.67	0.67	0.67	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.81	0.81	0.81	0.98	0.98	0.98	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	71.0	23.0	23.0	66.6	0.0	0.0	71.7	0.0	63.7	72.3	0.0	66.6
Incr Delay (d2), s/veh	10.6	0.4	0.7	14.0	0.3	0.6	18.5	0.0	3.5	10.0	0.0	27.1
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	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	9.3	9.7	2.9	0.1	0.2	2.2	0.0	4.4	1.0	0.0	6.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	81.5	23.3	23.7	80.6	0.3	0.6	90.2	0.0	67.2	82.3	0.0	93.7
LnGrp LOS	F	C	C	F	A	A	F	A	E	F	A	F
Approach Vol, veh/h		1179			955			166			168	
Approach Delay, s/veh		27.9			6.6			74.0			92.1	
Approach LOS		C			A			E			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.5	98.5	11.1	23.9	14.7	100.3	12.8	22.2
Change Period (Y+Rc), s	* 7.1	* 7.1	7.4	7.4	* 7.1	* 7.1	7.4	7.4
Max Green Setting (Gmax), s	* 17	* 74	10.6	19.6	* 17	* 74	12.6	17.6
Max Q Clear Time (g_c+I1), s	9.5	2.0	4.0	11.7	7.9	24.0	6.2	14.6
Green Ext Time (p_c), s	0.1	6.2	0.0	0.3	0.1	8.3	0.0	0.2

Intersection Summary	
HCM 6th Ctrl Delay	27.1
HCM 6th LOS	C

Notes

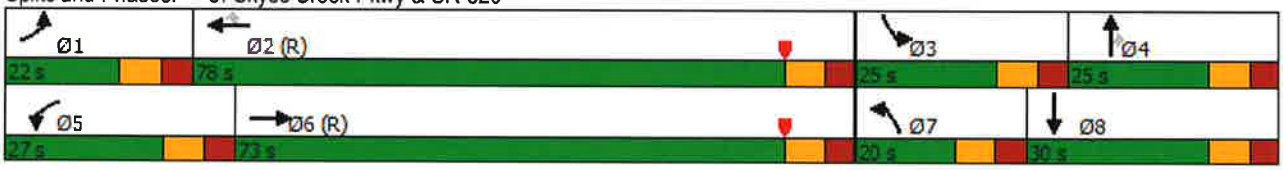
User approved pedestrian interval to be less than phase max green.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	132	659	71	710	268	17	67	121	234	76	117
Future Volume (vph)	132	659	71	710	268	17	67	121	234	76	117
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Free
Protected Phases	1	6	5	2		7	4		3	8	
Permitted Phases					2			4			Free
Detector Phase	1	6	5	2	2	7	4	4	3	8	
Switch Phase											
Minimum Initial (s)	6.0	15.0	6.0	15.0	15.0	6.0	8.0	8.0	6.0	8.0	
Minimum Split (s)	14.3	23.3	14.3	23.3	23.3	14.4	16.4	16.4	14.4	16.4	
Total Split (s)	22.0	73.0	27.0	78.0	78.0	20.0	25.0	25.0	25.0	30.0	
Total Split (%)	14.7%	48.7%	18.0%	52.0%	52.0%	13.3%	16.7%	16.7%	16.7%	20.0%	
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	
All-Red Time (s)	3.5	3.5	3.5	3.5	3.5	3.6	3.6	3.6	3.6	3.6	
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)	8.3	8.3	8.3	8.3	8.3	8.4	8.4	8.4	8.4	8.4	
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	C-Max	None	C-Max	C-Max	None	None	None	None	None	

Intersection Summary

Cycle Length: 150
Actuated Cycle Length: 150
Offset: 112 (75%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow
Natural Cycle: 70
Control Type: Actuated-Coordinated

Splits and Phases: 3: Skyes Creek Pkwy & SR 520



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	132	659	23	71	710	268	17	67	121	234	76	117
Future Volume (veh/h)	132	659	23	71	710	268	17	67	121	234	76	117
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1826	1826	1870	1856	1870	1811	1870	1885	1870	1885	1885
Adj Flow Rate, veh/h	143	716	25	77	772	291	18	73	132	254	83	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	1	5	5	2	3	2	6	2	1	2	1	1
Cap, veh/h	189	2747	96	133	2733	1505	36	341	153	303	306	
Arrive On Green	0.11	1.00	1.00	0.04	0.54	0.54	0.02	0.10	0.10	0.09	0.16	0.00
Sat Flow, veh/h	3483	4946	172	3456	5066	2790	1725	3554	1598	3456	1885	1598
Grp Volume(v), veh/h	143	480	261	77	772	291	18	73	132	254	83	0
Grp Sat Flow(s),veh/h/ln	1742	1662	1795	1728	1689	1395	1725	1777	1598	1728	1885	1598
Q Serve(g_s), s	6.0	0.0	0.0	3.3	12.4	8.0	1.5	2.8	12.2	10.9	5.8	0.0
Cycle Q Clear(g_c), s	6.0	0.0	0.0	3.3	12.4	8.0	1.5	2.8	12.2	10.9	5.8	0.0
Prop In Lane	1.00		0.10	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	189	1846	997	133	2733	1505	36	341	153	303	306	
V/C Ratio(X)	0.76	0.26	0.26	0.58	0.28	0.19	0.49	0.21	0.86	0.84	0.27	
Avail Cap(c_a), veh/h	318	1846	997	431	2733	1505	133	393	177	382	306	
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.93	0.93	0.93	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	65.9	0.0	0.0	70.9	18.8	17.8	72.6	62.6	66.8	67.4	55.0	0.0
Incr Delay (d2), s/veh	5.7	0.3	0.6	4.0	0.3	0.3	10.0	0.3	29.8	12.5	0.5	0.0
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	0.0
%ile BackOfQ(50%),veh/ln	2.7	0.1	0.2	1.5	4.8	2.6	0.8	1.3	6.2	5.2	2.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	71.6	0.3	0.6	74.9	19.0	18.0	82.6	62.9	96.6	79.9	55.5	0.0
LnGrp LOS	E	A	A	E	B	B	F	E	F	E	E	
Approach Vol, veh/h		884			1140			223			337	A
Approach Delay, s/veh		11.9			22.5			84.4			73.9	
Approach LOS		B			C			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.4	89.2	21.5	22.8	14.1	91.6	11.6	32.8
Change Period (Y+Rc), s	8.3	8.3	* 8.4	* 8.4	8.3	8.3	* 8.4	* 8.4
Max Green Setting (Gmax), s	13.7	69.7	* 17	* 17	18.7	64.7	* 12	* 22
Max Q Clear Time (g_c+I1), s	8.0	14.4	12.9	14.2	5.3	2.0	3.5	7.8
Green Ext Time (p_c), s	0.2	7.3	0.3	0.2	0.1	4.9	0.0	0.2

Intersection Summary	
HCM 6th Ctrl Delay	30.9
HCM 6th LOS	C

Notes

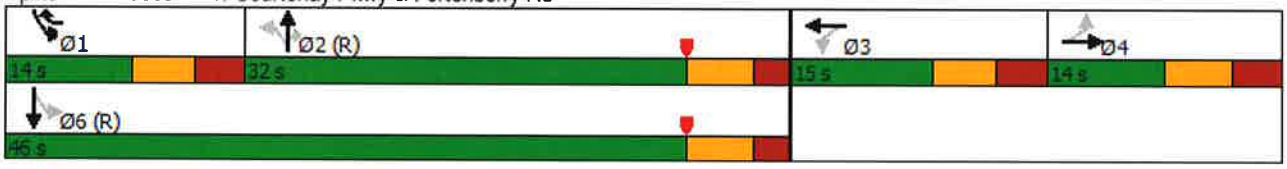
User approved pedestrian interval to be less than phase max green.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	1	0	43	0	75	1	646	69	96	630
Future Volume (vph)	1	0	43	0	75	1	646	69	96	630
Turn Type	Perm	NA	Perm	NA	Over	Perm	NA	Perm	pm+pt	NA
Protected Phases		4		3	1		2		1	6
Permitted Phases	4		3			2		2	6	
Detector Phase	4	4	3	3	1	2	2	2	1	6
Switch Phase										
Minimum Initial (s)	7.0	7.0	1.0	1.0	5.0	12.0	12.0	12.0	5.0	12.0
Minimum Split (s)	14.0	14.0	7.6	7.6	11.6	18.2	18.2	18.2	11.6	18.2
Total Split (s)	14.0	14.0	15.0	15.0	14.0	32.0	32.0	32.0	14.0	46.0
Total Split (%)	18.7%	18.7%	20.0%	20.0%	18.7%	42.7%	42.7%	42.7%	18.7%	61.3%
Yellow Time (s)	4.0	4.0	3.6	3.6	3.6	4.0	4.0	4.0	3.6	4.0
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	2.2	2.2	2.2	3.0	2.2
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		7.0		6.6	6.6	6.2	6.2	6.2	6.6	6.2
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lag	Lag	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	C-Max	C-Max	C-Max	None	C-Max

Intersection Summary

Cycle Length: 75
Actuated Cycle Length: 75
Offset: 32 (43%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 4: Courtenay Pkwy & Fortenberry Rd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	0	0	43	0	75	1	646	69	96	630	0
Future Volume (vph)	1	0	0	43	0	75	1	646	69	96	630	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.0			6.6	6.6	6.2	6.2	6.2	6.6	6.2	
Lane Util. Factor		1.00			1.00	1.00	1.00	0.95	1.00	1.00	0.95	
Frt		1.00			1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Flt Protected		0.95			0.95	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1805			1719	1553	1805	3539	1583	1805	3471	
Flt Permitted		1.00			1.00	1.00	0.41	1.00	1.00	0.31	1.00	
Satd. Flow (perm)		1900			1810	1553	770	3539	1583	591	3471	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	1	0	0	44	0	77	1	666	71	99	649	0
RTOR Reduction (vph)	0	0	0	0	0	71	0	0	36	0	0	0
Lane Group Flow (vph)	0	1	0	0	44	6	1	666	35	99	649	0
Heavy Vehicles (%)	0%	0%	0%	5%	0%	4%	0%	2%	2%	0%	4%	0%
Turn Type	Perm	NA		Perm	NA	Over	Perm	NA	Perm	pm+pt	NA	
Protected Phases		4			3	1		2		1	6	
Permitted Phases	4			3			2		2	6		
Actuated Green, G (s)		1.4			4.8	5.4	37.0	37.0	37.0	49.0	49.0	
Effective Green, g (s)		1.4			4.8	5.4	37.0	37.0	37.0	49.0	49.0	
Actuated g/C Ratio		0.02			0.06	0.07	0.49	0.49	0.49	0.65	0.65	
Clearance Time (s)		7.0			6.6	6.6	6.2	6.2	6.2	6.6	6.2	
Vehicle Extension (s)		3.0			3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		35			115	111	379	1745	780	473	2267	
v/s Ratio Prot						0.00		c0.19		0.02	c0.19	
v/s Ratio Perm		c0.00			c0.02		0.00		0.02	0.12		
v/c Ratio		0.03			0.38	0.05	0.00	0.38	0.04	0.21	0.29	
Uniform Delay, d1		36.1			33.7	32.4	9.6	11.9	9.8	5.5	5.5	
Progression Factor		1.00			1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		0.3			2.1	0.2	0.0	0.6	0.1	0.2	0.3	
Delay (s)		36.5			35.8	32.6	9.7	12.5	10.0	5.7	5.9	
Level of Service		D			D	C	A	B	A	A	A	
Approach Delay (s)		36.5			33.8			12.2			5.8	
Approach LOS		D			C			B			A	

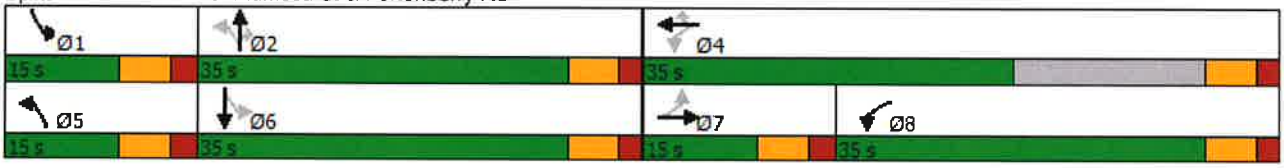
Intersection Summary			
HCM 2000 Control Delay	10.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.38		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	26.4
Intersection Capacity Utilization	49.4%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	13	57	88	38	22	15	133	130	23	179
Future Volume (vph)	13	57	88	38	22	15	133	130	23	179
Turn Type	Perm	NA	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA
Protected Phases		7	8	4		5	2		1	6
Permitted Phases	7		4		4	2		2	6	
Detector Phase	7	7	8	4	4	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	7.0	7.0	7.0	5.0	14.0	14.0	5.0	14.0
Minimum Split (s)	11.0	11.0	13.0	13.0	13.0	11.0	20.0	20.0	11.0	20.0
Total Split (s)	15.0	15.0	35.0	35.0	35.0	15.0	35.0	35.0	15.0	35.0
Total Split (%)	15.0%	15.0%	35.0%	35.0%	35.0%	15.0%	35.0%	35.0%	15.0%	35.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lead	Lag			Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes			Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 65.1
Natural Cycle: 55
Control Type: Actuated-Uncoordinated

Splits and Phases: 5: Plumosa St & Fortenberry Rd





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	57	46	88	38	22	15	133	130	23	179	25
Future Volume (vph)	13	57	46	88	38	22	15	133	130	23	179	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0		6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.93		1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1805	1734		1770	1900	1538	1805	1810	1615	1805	1814	
Flt Permitted	0.73	1.00		0.68	1.00	1.00	0.62	1.00	1.00	0.64	1.00	
Satd. Flow (perm)	1386	1734		1273	1900	1538	1175	1810	1615	1223	1814	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	14	63	51	97	42	24	16	146	143	25	197	27
RTOR Reduction (vph)	0	29	0	0	0	18	0	0	75	0	4	0
Lane Group Flow (vph)	14	85	0	97	42	6	16	146	68	25	220	0
Heavy Vehicles (%)	0%	4%	0%	2%	0%	5%	0%	5%	0%	0%	2%	9%
Turn Type	Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases		7		8	4		5	2		1	6	
Permitted Phases	7			4		4	2		2	6		
Actuated Green, G (s)	6.4	6.4		17.9	17.9	17.9	35.8	34.7	34.7	38.0	35.8	
Effective Green, g (s)	6.4	6.4		17.9	17.9	17.9	35.8	34.7	34.7	38.0	35.8	
Actuated g/C Ratio	0.09	0.09		0.25	0.25	0.25	0.49	0.48	0.48	0.52	0.49	
Clearance Time (s)	6.0	6.0		6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	121	152		350	467	378	587	862	769	655	892	
v/s Ratio Prot		c0.05		c0.02	0.02		0.00	0.08		c0.00	c0.12	
v/s Ratio Perm	0.01			0.05		0.00	0.01		0.04	0.02		
v/c Ratio	0.12	0.56		0.28	0.09	0.02	0.03	0.17	0.09	0.04	0.25	
Uniform Delay, d1	30.6	31.8		22.4	21.2	20.8	9.5	10.8	10.4	8.4	10.7	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.4	4.4		0.4	0.1	0.0	0.0	0.4	0.2	0.0	0.7	
Delay (s)	31.0	36.2		22.8	21.3	20.8	9.5	11.3	10.6	8.5	11.4	
Level of Service	C	D		C	C	C	A	B	B	A	B	
Approach Delay (s)		35.7			22.1			10.9			11.1	
Approach LOS		D			C			B			B	

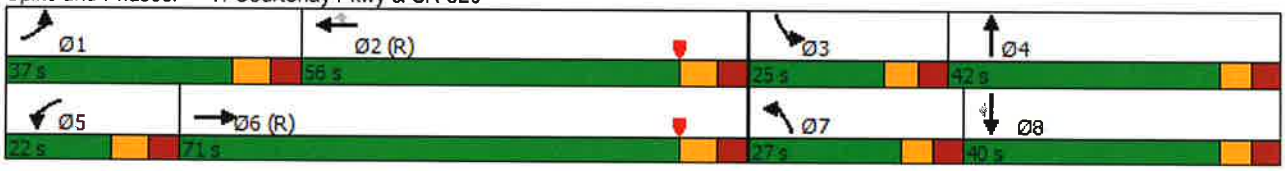
Intersection Summary			
HCM 2000 Control Delay	16.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.30		
Actuated Cycle Length (s)	72.8	Sum of lost time (s)	24.0
Intersection Capacity Utilization	40.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	464	889	140	949	288	364	578	317	548	504
Future Volume (vph)	464	889	140	949	288	364	578	317	548	504
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	1	6	5	2		7	4	3	8	
Permitted Phases					2					8
Detector Phase	1	6	5	2	2	7	4	3	8	8
Switch Phase										
Minimum Initial (s)	6.0	15.0	6.0	15.0	15.0	6.0	8.0	6.0	8.0	8.0
Minimum Split (s)	14.7	23.7	14.7	23.7	23.7	13.9	15.9	13.9	15.9	15.9
Total Split (s)	37.0	71.0	22.0	56.0	56.0	27.0	42.0	25.0	40.0	40.0
Total Split (%)	23.1%	44.4%	13.8%	35.0%	35.0%	16.9%	26.3%	15.6%	25.0%	25.0%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.1	4.1	4.1	4.1	4.1
All-Red Time (s)	3.9	3.9	3.9	3.9	3.9	3.8	3.8	3.8	3.8	3.8
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)	8.7	8.7	8.7	8.7	8.7	7.9	7.9	7.9	7.9	7.9
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	C-Max	None	None	None	None	None

Intersection Summary

Cycle Length: 160
Actuated Cycle Length: 160
Offset: 20 (13%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow
Natural Cycle: 100
Control Type: Actuated-Coordinated

Splits and Phases: 1: Courtenay Pkwy & SR 520



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	464	889	165	140	949	288	364	578	72	317	548	504
Future Volume (veh/h)	464	889	165	140	949	288	364	578	72	317	548	504
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1885	1885	1885	1870	1885	1870	1870	1900	1900	1900	1885
Adj Flow Rate, veh/h	494	946	176	149	1010	306	387	615	77	337	583	536
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	1	1	1	2	1	2	2	0	0	0	1
Cap, veh/h	546	1817	337	195	1619	506	413	677	85	375	724	564
Arrive On Green	0.16	0.42	0.42	0.02	0.10	0.10	0.12	0.21	0.21	0.11	0.20	0.20
Sat Flow, veh/h	3510	4362	809	3483	5106	1598	3456	3178	397	3510	3610	2812
Grp Volume(v), veh/h	494	743	379	149	1010	306	387	343	349	337	583	536
Grp Sat Flow(s),veh/h/ln	1755	1716	1740	1742	1702	1598	1728	1777	1799	1755	1805	1406
Q Serve(g_s), s	22.1	25.8	26.0	6.8	30.3	29.3	17.8	30.2	30.3	15.2	24.6	30.1
Cycle Q Clear(g_c), s	22.1	25.8	26.0	6.8	30.3	29.3	17.8	30.2	30.3	15.2	24.6	30.1
Prop In Lane	1.00		0.46	1.00		1.00	1.00		0.22	1.00		1.00
Lane Grp Cap(c), veh/h	546	1429	725	195	1619	506	413	379	383	375	724	564
V/C Ratio(X)	0.91	0.52	0.52	0.76	0.62	0.60	0.94	0.91	0.91	0.90	0.80	0.95
Avail Cap(c_a), veh/h	621	1429	725	290	1619	506	413	379	383	375	724	564
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.79	0.79	0.79	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	66.4	34.8	34.8	77.5	62.5	62.0	69.9	61.4	61.4	70.6	61.0	63.2
Incr Delay (d2), s/veh	15.6	1.4	2.7	5.4	1.4	4.2	29.2	24.8	25.1	23.5	6.6	26.0
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	0.0
%ile BackOfQ(50%),veh/ln	10.9	10.9	11.4	3.3	14.1	13.3	9.5	16.2	16.4	8.0	11.9	12.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	82.1	36.1	37.5	82.8	63.9	66.2	99.0	86.2	86.5	94.1	67.6	89.1
LnGrp LOS	F	D	D	F	E	E	F	F	F	F	E	F
Approach Vol, veh/h		1616			1465			1079			1456	
Approach Delay, s/veh		50.5			66.3			90.9			81.7	
Approach LOS		D			E			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	33.6	59.4	25.0	42.0	17.7	75.3	27.0	40.0
Change Period (Y+Rc), s	* 8.7	* 8.7	* 7.9	* 7.9	* 8.7	* 8.7	* 7.9	* 7.9
Max Green Setting (Gmax), s	* 28	* 47	* 17	* 34	* 13	* 62	* 19	* 32
Max Q Clear Time (g_c+I1), s	24.1	32.3	17.2	32.3	8.8	28.0	19.8	32.1
Green Ext Time (p_c), s	0.7	6.7	0.0	0.8	0.2	8.2	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	70.5
HCM 6th LOS	E

Notes

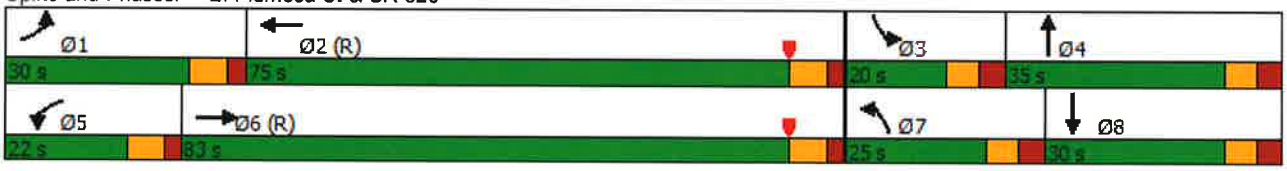
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	124	1232	90	1296	101	99	60	75
Future Volume (vph)	124	1232	90	1296	101	99	60	75
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	1	6	5	2	7	4	3	8
Permitted Phases								
Detector Phase	1	6	5	2	7	4	3	8
Switch Phase								
Minimum Initial (s)	6.0	15.0	6.0	15.0	6.0	8.0	6.0	8.0
Minimum Split (s)	13.2	22.2	13.2	22.2	13.4	15.4	13.4	15.4
Total Split (s)	30.0	83.0	22.0	75.0	25.0	35.0	20.0	30.0
Total Split (%)	18.8%	51.9%	13.8%	46.9%	15.6%	21.9%	12.5%	18.8%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.0	4.0	4.0	4.0
All-Red Time (s)	2.3	2.3	2.3	2.3	3.4	3.4	3.4	3.4
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.1	7.1	7.1	7.1	7.4	7.4	7.4	7.4
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Min	None	None	Max	None

Intersection Summary

Cycle Length: 160
Actuated Cycle Length: 160
Offset: 102 (64%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 2: Plumosa St & SR 520



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	124	1232	98	90	1296	102	101	99	64	60	75	110
Future Volume (veh/h)	124	1232	98	90	1296	102	101	99	64	60	75	110
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1811	1885	1870	1900	1870	1856	1870	1900	1870	1841	1885	1885
Adj Flow Rate, veh/h	128	1270	101	93	1336	105	104	102	66	62	77	113
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	0.97
Percent Heavy Veh, %	6	1	2	0	2	3	2	0	2	4	1	1
Cap, veh/h	150	2733	217	112	2594	204	125	125	81	138	86	126
Arrive On Green	0.06	0.38	0.38	0.12	1.00	1.00	0.07	0.12	0.12	0.08	0.12	0.12
Sat Flow, veh/h	1725	4860	386	1810	4827	379	1781	1077	697	1753	690	1013
Grp Volume(v), veh/h	128	897	474	93	942	499	104	0	168	62	0	190
Grp Sat Flow(s),veh/h/ln	1725	1716	1816	1810	1702	1802	1781	0	1775	1753	0	1703
Q Serve(g_s), s	11.8	31.6	31.6	8.0	0.0	0.0	9.2	0.0	14.8	5.4	0.0	17.6
Cycle Q Clear(g_c), s	11.8	31.6	31.6	8.0	0.0	0.0	9.2	0.0	14.8	5.4	0.0	17.6
Prop In Lane	1.00		0.21	1.00		0.21	1.00		0.39	1.00		0.59
Lane Grp Cap(c), veh/h	150	1929	1021	112	1830	969	125	0	205	138	0	212
V/C Ratio(X)	0.85	0.46	0.46	0.83	0.51	0.51	0.83	0.00	0.82	0.45	0.00	0.90
Avail Cap(c_a), veh/h	247	1929	1021	169	1830	969	196	0	306	138	0	241
HCM Platoon Ratio	0.67	0.67	0.67	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.73	0.73	0.73	0.95	0.95	0.95	0.99	0.00	0.99	1.00	0.00	1.00
Uniform Delay (d), s/veh	74.3	31.7	31.7	69.2	0.0	0.0	73.5	0.0	69.1	70.4	0.0	69.1
Incr Delay (d2), s/veh	10.8	0.6	1.1	17.7	1.0	1.9	15.5	0.0	10.2	10.2	0.0	30.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.7	13.9	14.9	4.0	0.3	0.5	4.8	0.0	7.3	2.9	0.0	9.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	85.1	32.3	32.8	86.9	1.0	1.9	89.0	0.0	79.3	80.6	0.0	99.3
LnGrp LOS	F	C	C	F	A	A	F	A	E	F	A	F
Approach Vol, veh/h		1499			1534			272			252	
Approach Delay, s/veh		36.9			6.5			83.0			94.7	
Approach LOS		D			A			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.0	93.1	20.0	25.9	17.0	97.1	18.6	27.3
Change Period (Y+Rc), s	* 7.1	* 7.1	7.4	7.4	* 7.1	* 7.1	7.4	7.4
Max Green Setting (Gmax), s	* 23	* 68	12.6	27.6	* 15	* 76	17.6	22.6
Max Q Clear Time (g_c+I1), s	13.8	2.0	7.4	16.8	10.0	33.6	11.2	19.6
Green Ext Time (p_c), s	0.2	13.0	0.0	0.6	0.1	11.3	0.1	0.3

Intersection Summary	
HCM 6th Ctrl Delay	31.4
HCM 6th LOS	C

Notes

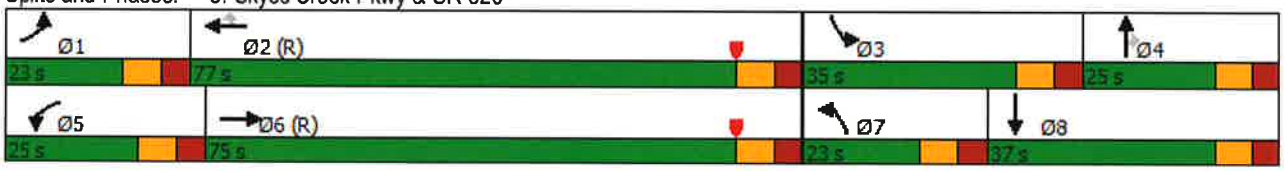
User approved pedestrian interval to be less than phase max green.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	214	893	145	895	302	64	121	187	329	133	162
Future Volume (vph)	214	893	145	895	302	64	121	187	329	133	162
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Free
Protected Phases	1	6	5	2		7	4		3	8	
Permitted Phases					2			4			Free
Detector Phase	1	6	5	2	2	7	4	4	3	8	
Switch Phase											
Minimum Initial (s)	6.0	15.0	6.0	15.0	15.0	6.0	8.0	8.0	6.0	8.0	
Minimum Split (s)	14.3	23.3	14.3	23.3	23.3	14.4	16.4	16.4	14.4	16.4	
Total Split (s)	23.0	75.0	25.0	77.0	77.0	23.0	25.0	25.0	35.0	37.0	
Total Split (%)	14.4%	46.9%	15.6%	48.1%	48.1%	14.4%	15.6%	15.6%	21.9%	23.1%	
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	
All-Red Time (s)	3.5	3.5	3.5	3.5	3.5	3.6	3.6	3.6	3.6	3.6	
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)	8.3	8.3	8.3	8.3	8.3	8.4	8.4	8.4	8.4	8.4	
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	C-Max	None	C-Max	C-Max	None	None	None	None	None	

Intersection Summary

Cycle Length: 160
Actuated Cycle Length: 160
Offset: 105 (66%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow
Natural Cycle: 75
Control Type: Actuated-Coordinated

Splits and Phases: 3: Skyes Creek Pkwy & SR 520





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	214	893	30	145	895	302	64	121	187	329	133	162
Future Volume (veh/h)	214	893	30	145	895	302	64	121	187	329	133	162
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1900	1870	1856	1856	1900	1870	1870	1885	1856	1885
Adj Flow Rate, veh/h	223	930	31	151	932	315	67	126	195	343	139	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	1	1	0	2	3	3	0	2	2	1	3	1
Cap, veh/h	264	2641	88	197	2519	1376	85	369	164	398	317	
Arrive On Green	0.15	1.00	1.00	0.06	0.50	0.50	0.05	0.10	0.10	0.11	0.17	0.00
Sat Flow, veh/h	3483	5115	170	3456	5066	2768	1810	3554	1585	3483	1856	1598
Grp Volume(v), veh/h	223	623	338	151	932	315	67	126	195	343	139	0
Grp Sat Flow(s),veh/h/ln	1742	1716	1855	1728	1689	1384	1810	1777	1585	1742	1856	1598
Q Serve(g_s), s	10.0	0.0	0.0	6.9	18.1	10.3	5.9	5.3	16.6	15.5	10.7	0.0
Cycle Q Clear(g_c), s	10.0	0.0	0.0	6.9	18.1	10.3	5.9	5.3	16.6	15.5	10.7	0.0
Prop In Lane	1.00		0.09	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	264	1771	957	197	2519	1376	85	369	164	398	317	
V/C Ratio(X)	0.84	0.35	0.35	0.77	0.37	0.23	0.79	0.34	1.19	0.86	0.44	
Avail Cap(c_a), veh/h	320	1771	957	361	2519	1376	165	369	164	579	332	
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.85	0.85	0.85	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	66.9	0.0	0.0	74.4	24.8	22.8	75.5	66.6	71.7	69.6	59.4	0.0
Incr Delay (d2), s/veh	13.7	0.5	0.9	6.1	0.4	0.4	14.7	0.5	128.9	8.9	1.0	0.0
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	0.0
%ile BackOfQ(50%),veh/ln	4.6	0.1	0.2	3.2	7.3	3.4	3.1	2.4	12.5	7.3	5.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	80.6	0.5	0.9	80.5	25.2	23.2	90.2	67.2	200.6	78.6	60.4	0.0
LnGrp LOS	F	A	A	F	C	C	F	E	F	E	E	
Approach Vol, veh/h		1184			1398			388			482	A
Approach Delay, s/veh		15.7			30.7			138.2			73.3	
Approach LOS		B			C			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.4	87.9	26.7	25.0	17.4	90.9	15.9	35.8
Change Period (Y+Rc), s	8.3	8.3	* 8.4	* 8.4	8.3	8.3	* 8.4	* 8.4
Max Green Setting (Gmax), s	14.7	68.7	* 27	* 17	16.7	66.7	* 15	* 29
Max Q Clear Time (g_c+I1), s	12.0	20.1	17.5	18.6	8.9	2.0	7.9	12.7
Green Ext Time (p_c), s	0.2	9.1	0.8	0.0	0.2	6.9	0.1	0.5

Intersection Summary	
HCM 6th Ctrl Delay	43.6
HCM 6th LOS	D

Notes

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

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	1	0	94	0	183	3	738	65	67	854
Future Volume (vph)	1	0	94	0	183	3	738	65	67	854
Turn Type	Perm	NA	Perm	NA	Over	Perm	NA	Perm	pm+pt	NA
Protected Phases		4		3	1		2		1	6
Permitted Phases	4		3			2		2	6	
Detector Phase	4	4	3	3	1	2	2	2	1	6
Switch Phase										
Minimum Initial (s)	7.0	7.0	7.0	7.0	5.0	12.0	12.0	12.0	5.0	12.0
Minimum Split (s)	14.0	14.0	13.6	13.6	11.6	18.2	18.2	18.2	11.6	18.2
Total Split (s)	16.0	16.0	16.0	16.0	14.0	34.0	34.0	34.0	14.0	48.0
Total Split (%)	20.0%	20.0%	20.0%	20.0%	17.5%	42.5%	42.5%	42.5%	17.5%	60.0%
Yellow Time (s)	4.0	4.0	3.6	3.6	3.6	4.0	4.0	4.0	3.6	4.0
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	2.2	2.2	2.2	3.0	2.2
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		7.0		6.6	6.6	6.2	6.2	6.2	6.6	6.2
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lag	Lag	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	C-Max	C-Max	C-Max	None	C-Max

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 57.8 (72%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
Natural Cycle: 65
Control Type: Actuated-Coordinated

Splits and Phases: 4: Courtenay Pkwy & Fortenberry Rd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	0	2	94	0	183	3	738	65	67	854	1
Future Volume (vph)	1	0	2	94	0	183	3	738	65	67	854	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.0			6.6	6.6	6.2	6.2	6.2	6.6	6.2	
Lane Util. Factor		1.00			1.00	1.00	1.00	0.95	1.00	1.00	0.95	
Frt		0.91			1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Flt Protected		0.98			0.95	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1701			1805	1599	1805	3539	1538	1805	3574	
Flt Permitted		1.00			0.43	1.00	0.31	1.00	1.00	0.24	1.00	
Satd. Flow (perm)		1729			809	1599	590	3539	1538	453	3574	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	1	0	2	101	0	197	3	794	70	72	918	1
RTOR Reduction (vph)	0	3	0	0	0	180	0	0	39	0	0	0
Lane Group Flow (vph)	0	0	0	0	101	17	3	794	32	72	919	0
Heavy Vehicles (%)	0%	0%	0%	0%	0%	1%	0%	2%	5%	0%	1%	0%
Turn Type	Perm	NA		Perm	NA	Over	Perm	NA	Perm	pm+pt	NA	
Protected Phases		4			3	1		2		1	6	
Permitted Phases	4			3			2		2	6		
Actuated Green, G (s)		1.4			9.4	6.8	36.0	36.0	36.0	49.4	49.4	
Effective Green, g (s)		1.4			9.4	6.8	36.0	36.0	36.0	49.4	49.4	
Actuated g/C Ratio		0.02			0.12	0.08	0.45	0.45	0.45	0.62	0.62	
Clearance Time (s)		7.0			6.6	6.6	6.2	6.2	6.2	6.6	6.2	
Vehicle Extension (s)		3.0			3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		30			95	135	265	1592	692	394	2206	
v/s Ratio Prot						0.01		c0.22		0.02	c0.26	
v/s Ratio Perm		c0.00			c0.12		0.01		0.02	0.10		
v/c Ratio		0.00			1.06	0.12	0.01	0.50	0.05	0.18	0.42	
Uniform Delay, d1		38.6			35.3	33.8	12.2	15.6	12.4	7.4	7.9	
Progression Factor		1.00			1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		0.0			110.5	0.4	0.1	1.1	0.1	0.2	0.6	
Delay (s)		38.6			145.8	34.3	12.2	16.7	12.5	7.6	8.5	
Level of Service		D			F	C	B	B	B	A	A	
Approach Delay (s)		38.6			72.1			16.4			8.4	
Approach LOS		D			E			B			A	

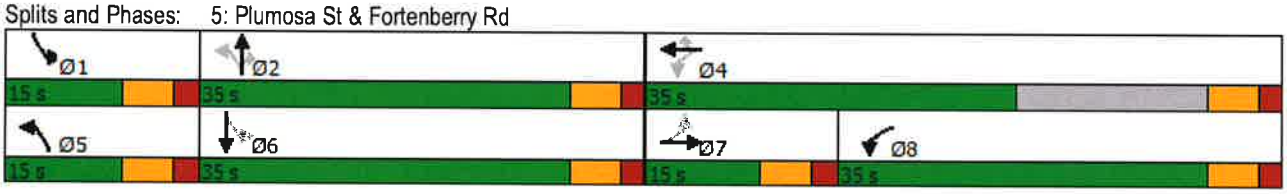
Intersection Summary			
HCM 2000 Control Delay	20.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	26.4
Intersection Capacity Utilization	61.3%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	27	107	140	126	63	39	169	162	49	133
Future Volume (vph)	27	107	140	126	63	39	169	162	49	133
Turn Type	Perm	NA	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA
Protected Phases		7	8	4		5	2		1	6
Permitted Phases	7		4		4	2		2	6	
Detector Phase	7	7	8	4	4	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	7.0	7.0	7.0	5.0	14.0	14.0	5.0	14.0
Minimum Split (s)	11.0	11.0	13.0	13.0	13.0	11.0	20.0	20.0	11.0	20.0
Total Split (s)	15.0	15.0	35.0	35.0	35.0	15.0	35.0	35.0	15.0	35.0
Total Split (%)	15.0%	15.0%	35.0%	35.0%	35.0%	15.0%	35.0%	35.0%	15.0%	35.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lead	Lag			Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes			Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 71.4
Natural Cycle: 55
Control Type: Actuated-Uncoordinated

Splits and Phases: 5: Plumosa St & Fortenberry Rd





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	27	107	37	140	126	63	39	169	162	49	133	30
Future Volume (vph)	27	107	37	140	126	63	39	169	162	49	133	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0		6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.96		1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.97	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1805	1813		1770	1900	1583	1805	1881	1568	1736	1833	
Flt Permitted	0.67	1.00		0.64	1.00	1.00	0.64	1.00	1.00	0.63	1.00	
Satd. Flow (perm)	1269	1813		1194	1900	1583	1222	1881	1568	1160	1833	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	30	119	41	156	140	70	43	188	180	54	148	33
RTOR Reduction (vph)	0	12	0	0	0	49	0	0	109	0	7	0
Lane Group Flow (vph)	30	148	0	156	140	21	43	188	71	54	174	0
Heavy Vehicles (%)	0%	1%	0%	2%	0%	2%	0%	1%	3%	4%	1%	0%
Turn Type	Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases		7		8	4		5	2		1	6	
Permitted Phases	7			4		4	2		2	6		
Actuated Green, G (s)	9.1	9.1		22.7	22.7	22.7	33.1	29.3	29.3	33.5	29.5	
Effective Green, g (s)	9.1	9.1		22.7	22.7	22.7	33.1	29.3	29.3	33.5	29.5	
Actuated g/C Ratio	0.12	0.12		0.31	0.31	0.31	0.45	0.40	0.40	0.45	0.40	
Clearance Time (s)	6.0	6.0		6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	156	222		425	582	485	576	744	620	556	730	
v/s Ratio Prot		c0.08		c0.04	0.07		0.00	c0.10		c0.01	0.10	
v/s Ratio Perm	0.02			0.07		0.01	0.03		0.05	0.04		
v/c Ratio	0.19	0.67		0.37	0.24	0.04	0.07	0.25	0.11	0.10	0.24	
Uniform Delay, d1	29.1	31.0		20.7	19.2	18.0	11.6	15.0	14.1	11.4	14.8	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.6	7.3		0.5	0.2	0.0	0.1	0.8	0.4	0.1	0.8	
Delay (s)	29.8	38.3		21.2	19.4	18.1	11.6	15.8	14.5	11.5	15.6	
Level of Service	C	D		C	B	B	B	B	B	B	B	
Approach Delay (s)		37.0			19.9			14.8			14.6	
Approach LOS		D			B			B			B	

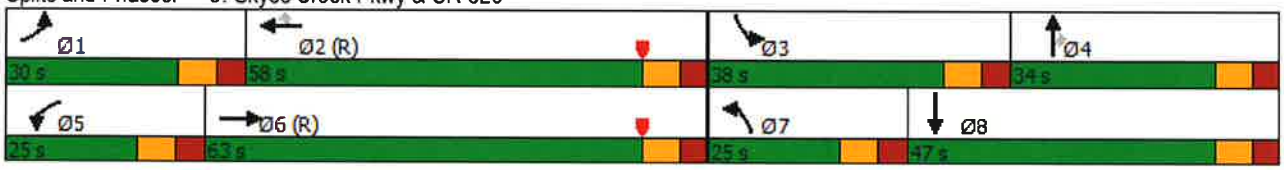
Intersection Summary			
HCM 2000 Control Delay	19.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.34		
Actuated Cycle Length (s)	74.0	Sum of lost time (s)	24.0
Intersection Capacity Utilization	51.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	214	893	145	895	302	64	121	187	329	133	162
Future Volume (vph)	214	893	145	895	302	64	121	187	329	133	162
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Free
Protected Phases	1	6	5	2		7	4		3	8	
Permitted Phases					2			4			Free
Detector Phase	1	6	5	2	2	7	4	4	3	8	
Switch Phase											
Minimum Initial (s)	6.0	15.0	6.0	15.0	15.0	6.0	8.0	8.0	6.0	8.0	
Minimum Split (s)	14.3	23.3	14.3	23.3	23.3	14.4	16.4	16.4	14.4	16.4	
Total Split (s)	30.0	63.0	25.0	58.0	58.0	25.0	34.0	34.0	38.0	47.0	
Total Split (%)	18.8%	39.4%	15.6%	36.3%	36.3%	15.6%	21.3%	21.3%	23.8%	29.4%	
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	
All-Red Time (s)	3.5	3.5	3.5	3.5	3.5	3.6	3.6	3.6	3.6	3.6	
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)	8.3	8.3	8.3	8.3	8.3	8.4	8.4	8.4	8.4	8.4	
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	C-Max	None	C-Max	C-Max	None	None	None	None	None	

Intersection Summary

Cycle Length: 160
Actuated Cycle Length: 160
Offset: 105 (66%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow
Natural Cycle: 75
Control Type: Actuated-Coordinated

Splits and Phases: 3: Skyes Creek Pkwy & SR 520



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	214	893	30	145	895	302	64	121	187	329	133	162
Future Volume (veh/h)	214	893	30	145	895	302	64	121	187	329	133	162
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1900	1870	1856	1856	1900	1870	1870	1885	1856	1885
Adj Flow Rate, veh/h	223	930	31	151	932	315	67	126	195	343	139	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	1	1	0	2	3	3	0	2	2	1	3	1
Cap, veh/h	270	2467	82	197	2340	1278	85	487	217	400	380	
Arrive On Green	0.16	0.96	0.96	0.06	0.46	0.46	0.05	0.14	0.14	0.11	0.20	0.00
Sat Flow, veh/h	3483	5115	170	3456	5066	2768	1810	3554	1585	3483	1856	1598
Grp Volume(v), veh/h	223	623	338	151	932	315	67	126	195	343	139	0
Grp Sat Flow(s),veh/h/ln	1742	1716	1855	1728	1689	1384	1810	1777	1585	1742	1856	1598
Q Serve(g_s), s	9.9	1.6	1.6	6.9	19.4	11.1	5.9	5.1	19.4	15.5	10.3	0.0
Cycle Q Clear(g_c), s	9.9	1.6	1.6	6.9	19.4	11.1	5.9	5.1	19.4	15.5	10.3	0.0
Prop In Lane	1.00		0.09	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	270	1655	895	197	2340	1278	85	487	217	400	380	
V/C Ratio(X)	0.83	0.38	0.38	0.77	0.40	0.25	0.79	0.26	0.90	0.86	0.37	
Avail Cap(c_a), veh/h	472	1655	895	361	2340	1278	188	569	254	644	448	
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.85	0.85	0.85	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	66.5	1.5	1.5	74.4	28.4	26.1	75.4	61.8	68.0	69.5	54.7	0.0
Incr Delay (d2), s/veh	5.4	0.6	1.0	6.1	0.5	0.5	14.6	0.3	28.7	6.5	0.6	0.0
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	0.0
%ile BackOfQ(50%),veh/ln	4.3	0.5	0.7	3.2	7.9	3.7	3.1	2.3	9.5	7.2	4.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	72.0	2.0	2.5	80.5	28.9	26.6	90.1	62.1	96.7	76.0	55.3	0.0
LnGrp LOS	E	A	A	F	C	C	F	E	F	E	E	
Approach Vol, veh/h		1184			1398			388			482	A
Approach Delay, s/veh		15.4			34.0			84.3			70.1	
Approach LOS		B			C			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.7	82.2	26.8	30.3	17.4	85.5	15.9	41.2
Change Period (Y+Rc), s	8.3	8.3	* 8.4	* 8.4	8.3	8.3	* 8.4	* 8.4
Max Green Setting (Gmax), s	21.7	49.7	* 30	* 26	16.7	54.7	* 17	* 39
Max Q Clear Time (g_c+I1), s	11.9	21.4	17.5	21.4	8.9	3.6	7.9	12.3
Green Ext Time (p_c), s	0.5	8.3	0.9	0.5	0.2	6.8	0.1	0.6

Intersection Summary	
HCM 6th Ctrl Delay	38.3
HCM 6th LOS	D

Notes

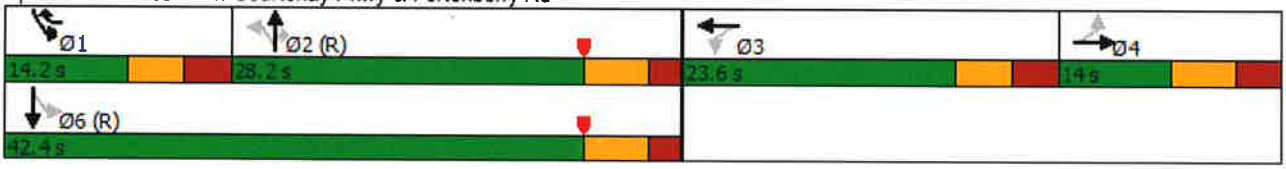
User approved pedestrian interval to be less than phase max green.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	1	0	94	0	183	3	738	65	67	854
Future Volume (vph)	1	0	94	0	183	3	738	65	67	854
Turn Type	Perm	NA	Perm	NA	Over	Perm	NA	Perm	pm+pt	NA
Protected Phases		4		3	1		2		1	6
Permitted Phases	4		3			2		2	6	
Detector Phase	4	4	3	3	1	2	2	2	1	6
Switch Phase										
Minimum Initial (s)	7.0	7.0	7.0	7.0	5.0	12.0	12.0	12.0	5.0	12.0
Minimum Split (s)	14.0	14.0	13.6	13.6	11.6	18.2	18.2	18.2	11.6	18.2
Total Split (s)	14.0	14.0	23.6	23.6	14.2	28.2	28.2	28.2	14.2	42.4
Total Split (%)	17.5%	17.5%	29.5%	29.5%	17.8%	35.3%	35.3%	35.3%	17.8%	53.0%
Yellow Time (s)	4.0	4.0	3.6	3.6	3.6	4.0	4.0	4.0	3.6	4.0
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	2.2	2.2	2.2	3.0	2.2
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		7.0		6.6	6.6	6.2	6.2	6.2	6.6	6.2
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lag	Lag	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	C-Max	C-Max	C-Max	None	C-Max

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 57.8 (72%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
Natural Cycle: 65
Control Type: Actuated-Coordinated

Splits and Phases: 4: Courtenay Pkwy & Fortenberry Rd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	0	2	94	0	183	3	738	65	67	854	1
Future Volume (vph)	1	0	2	94	0	183	3	738	65	67	854	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.0			6.6	6.6	6.2	6.2	6.2	6.6	6.2	
Lane Util. Factor		1.00			1.00	1.00	1.00	0.95	1.00	1.00	0.95	
Frt		0.91			1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Flt Protected		0.98			0.95	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1701			1805	1599	1805	3539	1538	1805	3574	
Flt Permitted		1.00			0.36	1.00	0.31	1.00	1.00	0.22	1.00	
Satd. Flow (perm)		1729			680	1599	590	3539	1538	414	3574	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	1	0	2	101	0	197	3	794	70	72	918	1
RTOR Reduction (vph)	0	3	0	0	0	181	0	0	42	0	0	0
Lane Group Flow (vph)	0	0	0	0	101	16	3	794	28	72	919	0
Heavy Vehicles (%)	0%	0%	0%	0%	0%	1%	0%	2%	5%	0%	1%	0%
Turn Type	Perm	NA		Perm	NA	Over	Perm	NA	Perm	pm+pt	NA	
Protected Phases		4			3	1		2		1	6	
Permitted Phases	4			3			2		2	6		
Actuated Green, G (s)		1.4			13.2	6.6	32.4	32.4	32.4	45.6	45.6	
Effective Green, g (s)		1.4			13.2	6.6	32.4	32.4	32.4	45.6	45.6	
Actuated g/C Ratio		0.02			0.16	0.08	0.40	0.40	0.40	0.57	0.57	
Clearance Time (s)		7.0			6.6	6.6	6.2	6.2	6.2	6.6	6.2	
Vehicle Extension (s)		3.0			3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		30			112	131	238	1433	622	350	2037	
v/s Ratio Prot						0.01		c0.22		0.02	c0.26	
v/s Ratio Perm		c0.00			c0.15		0.01		0.02	0.10		
v/c Ratio		0.00			0.90	0.12	0.01	0.55	0.05	0.21	0.45	
Uniform Delay, d1		38.6			32.8	34.0	14.2	18.3	14.4	9.2	10.0	
Progression Factor		1.00			1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		0.0			55.1	0.4	0.1	1.5	0.1	0.3	0.7	
Delay (s)		38.6			87.9	34.4	14.3	19.8	14.6	9.5	10.7	
Level of Service		D			F	C	B	B	B	A	B	
Approach Delay (s)		38.6			52.6			19.4			10.6	
Approach LOS		D			D			B			B	

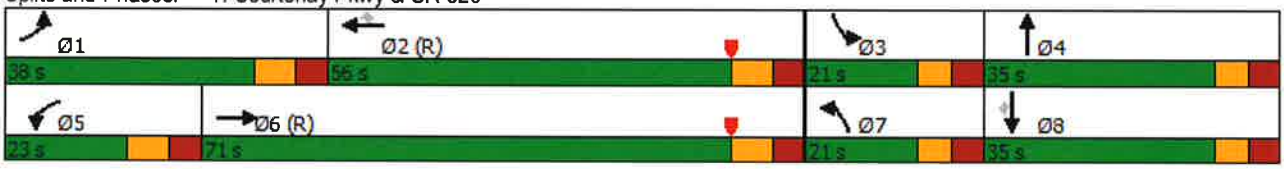
Intersection Summary			
HCM 2000 Control Delay	19.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	26.4
Intersection Capacity Utilization	61.3%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	470	814	125	552	154	226	526	236	461	417
Future Volume (vph)	470	814	125	552	154	226	526	236	461	417
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	1	6	5	2		7	4	3	8	
Permitted Phases					2					8
Detector Phase	1	6	5	2	2	7	4	3	8	8
Switch Phase										
Minimum Initial (s)	6.0	15.0	6.0	15.0	15.0	6.0	8.0	6.0	8.0	8.0
Minimum Split (s)	14.7	23.7	14.7	23.7	23.7	13.9	18.6	13.9	18.6	18.6
Total Split (s)	38.0	71.0	23.0	56.0	56.0	21.0	35.0	21.0	35.0	35.0
Total Split (%)	25.3%	47.3%	15.3%	37.3%	37.3%	14.0%	23.3%	14.0%	23.3%	23.3%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.1	4.1	4.1	4.1	4.1
All-Red Time (s)	3.9	3.9	3.9	3.9	3.9	3.8	3.8	3.8	3.8	3.8
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)	8.7	8.7	8.7	8.7	8.7	7.9	7.9	7.9	7.9	7.9
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	C-Max	None	None	None	None	None

Intersection Summary

Cycle Length: 150
Actuated Cycle Length: 150
Offset: 37 (25%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 1: Courtenay Pkwy & SR 520



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	470	814	216	125	552	154	226	526	71	236	461	417
Future Volume (veh/h)	470	814	216	125	552	154	226	526	71	236	461	417
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1856	1841	1885	1841	1870	1870	1885	1870	1870	1870	1870
Adj Flow Rate, veh/h	495	857	227	132	581	162	238	554	75	248	485	439
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	3	4	1	4	2	2	1	2	2	2	2
Cap, veh/h	554	1843	485	181	1775	560	283	573	77	292	651	511
Arrive On Green	0.16	0.46	0.46	0.02	0.12	0.12	0.08	0.18	0.18	0.08	0.18	0.18
Sat Flow, veh/h	3456	3992	1051	3483	5025	1585	3456	3171	428	3456	3554	2790
Grp Volume(v), veh/h	495	724	360	132	581	162	238	312	317	248	485	439
Grp Sat Flow(s),veh/h/ln	1728	1689	1666	1742	1675	1585	1728	1791	1808	1728	1777	1395
Q Serve(g_s), s	21.1	22.0	22.2	5.7	15.9	14.0	10.2	25.9	26.1	10.6	19.4	22.9
Cycle Q Clear(g_c), s	21.1	22.0	22.2	5.7	15.9	14.0	10.2	25.9	26.1	10.6	19.4	22.9
Prop In Lane	1.00		0.63	1.00		1.00	1.00		0.24	1.00		1.00
Lane Grp Cap(c), veh/h	554	1559	769	181	1775	560	283	324	327	292	651	511
V/C Ratio(X)	0.89	0.46	0.47	0.73	0.33	0.29	0.84	0.96	0.97	0.85	0.74	0.86
Avail Cap(c_a), veh/h	675	1559	769	332	1775	560	302	324	327	302	651	511
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.94	0.94	0.94	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	61.7	27.7	27.7	72.7	49.9	49.0	67.9	61.0	61.0	67.7	57.9	59.4
Incr Delay (d2), s/veh	12.5	1.0	2.0	5.2	0.5	1.2	18.1	40.5	41.6	19.6	4.6	13.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.0	8.9	9.1	2.7	7.3	6.2	5.2	15.4	15.7	5.5	9.1	9.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	74.3	28.7	29.8	77.8	50.4	50.3	86.0	101.5	102.6	87.3	62.6	73.0
LnGrp LOS	E	C	C	E	D	D	F	F	F	F	E	E
Approach Vol, veh/h		1579			875			867			1172	
Approach Delay, s/veh		43.2			54.5			97.7			71.7	
Approach LOS		D			D			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	32.8	61.7	20.6	35.0	16.5	77.9	20.2	35.4
Change Period (Y+Rc), s	* 8.7	* 8.7	* 7.9	* 7.9	* 8.7	* 8.7	* 7.9	* 7.9
Max Green Setting (Gmax), s	* 29	* 47	* 13	* 27	* 14	* 62	* 13	* 27
Max Q Clear Time (g_c+I1), s	23.1	17.9	12.6	28.1	7.7	24.2	12.2	24.9
Green Ext Time (p_c), s	1.0	4.4	0.0	0.0	0.2	8.1	0.1	1.1

Intersection Summary	
HCM 6th Ctrl Delay	63.4
HCM 6th LOS	E

Notes

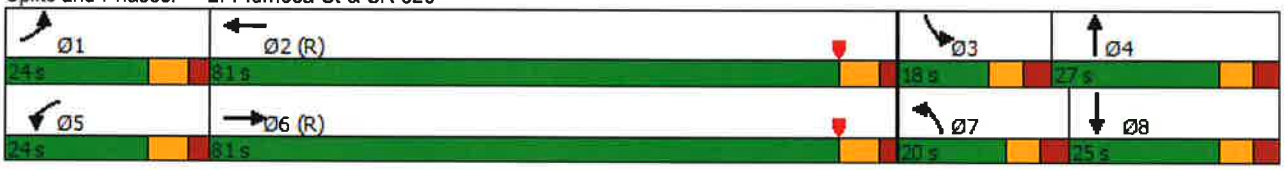
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	86	917	70	812	87	73	22	77
Future Volume (vph)	86	917	70	812	87	73	22	77
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	1	6	5	2	7	4	3	8
Permitted Phases								
Detector Phase	1	6	5	2	7	4	3	8
Switch Phase								
Minimum Initial (s)	6.0	15.0	6.0	15.0	6.0	8.0	6.0	8.0
Minimum Split (s)	13.1	22.1	13.1	22.1	13.4	15.4	13.4	15.4
Total Split (s)	24.0	81.0	24.0	81.0	20.0	27.0	18.0	25.0
Total Split (%)	16.0%	54.0%	16.0%	54.0%	13.3%	18.0%	12.0%	16.7%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.0	4.0	4.0	4.0
All-Red Time (s)	2.3	2.3	2.3	2.3	3.4	3.4	3.4	3.4
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.1	7.1	7.1	7.1	7.4	7.4	7.4	7.4
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	None	None	None

Intersection Summary

Cycle Length: 150
Actuated Cycle Length: 150
Offset: 111 (74%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow
Natural Cycle: 65
Control Type: Actuated-Coordinated

Splits and Phases: 2: Plumosa St & SR 520



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	86	917	141	70	812	35	87	73	43	22	77	63
Future Volume (veh/h)	86	917	141	70	812	35	87	73	43	22	77	63
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1841	1841	1900	1856	1900	1826	1856	1870	1826	1841	1870
Adj Flow Rate, veh/h	90	955	147	73	846	36	91	76	45	23	80	66
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	4	4	0	3	0	5	3	2	5	4	2
Cap, veh/h	111	2606	400	92	2896	123	111	151	89	43	92	76
Arrive On Green	0.04	0.40	0.40	0.10	1.00	1.00	0.06	0.14	0.14	0.02	0.10	0.10
Sat Flow, veh/h	1781	4395	674	1810	4983	212	1739	1092	647	1739	933	769
Grp Volume(v), veh/h	90	727	375	73	573	309	91	0	121	23	0	146
Grp Sat Flow(s),veh/h/ln	1781	1675	1719	1810	1689	1817	1739	0	1739	1739	0	1702
Q Serve(g_s), s	7.5	23.0	23.1	5.9	0.0	0.0	7.8	0.0	9.7	2.0	0.0	12.7
Cycle Q Clear(g_c), s	7.5	23.0	23.1	5.9	0.0	0.0	7.8	0.0	9.7	2.0	0.0	12.7
Prop In Lane	1.00		0.39	1.00		0.12	1.00		0.37	1.00		0.45
Lane Grp Cap(c), veh/h	111	1987	1020	92	1963	1056	111	0	241	43	0	169
V/C Ratio(X)	0.81	0.37	0.37	0.80	0.29	0.29	0.82	0.00	0.50	0.54	0.00	0.87
Avail Cap(c_a), veh/h	201	1987	1020	204	1963	1056	146	0	241	123	0	200
HCM Platoon Ratio	0.67	0.67	0.67	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.80	0.80	0.80	0.98	0.98	0.98	0.99	0.00	0.99	1.00	0.00	1.00
Uniform Delay (d), s/veh	71.0	25.3	25.4	66.6	0.0	0.0	69.4	0.0	59.9	72.3	0.0	66.6
Incr Delay (d2), s/veh	10.5	0.4	0.8	14.0	0.4	0.7	23.2	0.0	1.6	10.0	0.0	27.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	9.8	10.2	2.9	0.1	0.2	4.2	0.0	4.4	1.0	0.0	6.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	81.4	25.7	26.2	80.6	0.4	0.7	92.6	0.0	61.5	82.3	0.0	93.9
LnGrp LOS	F	C	C	F	A	A	F	A	E	F	A	F
Approach Vol, veh/h		1192			955			212			169	
Approach Delay, s/veh		30.1			6.6			74.8			92.3	
Approach LOS		C			A			E			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.5	94.3	11.1	28.1	14.7	96.0	17.0	22.3
Change Period (Y+Rc), s	* 7.1	* 7.1	7.4	7.4	* 7.1	* 7.1	7.4	7.4
Max Green Setting (Gmax), s	* 17	* 74	10.6	19.6	* 17	* 74	12.6	17.6
Max Q Clear Time (g_c+I1), s	9.5	2.0	4.0	11.7	7.9	25.1	9.8	14.7
Green Ext Time (p_c), s	0.1	6.2	0.0	0.3	0.1	8.4	0.0	0.2

Intersection Summary	
HCM 6th Ctrl Delay	29.1
HCM 6th LOS	C

Notes

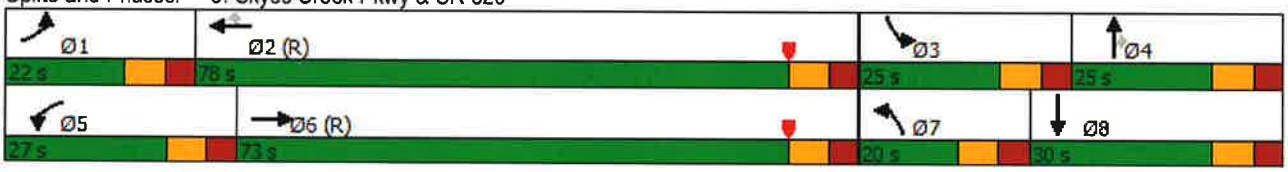
User approved pedestrian interval to be less than phase max green.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	132	659	79	710	268	17	74	146	234	78	117
Future Volume (vph)	132	659	79	710	268	17	74	146	234	78	117
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Free
Protected Phases	1	6	5	2		7	4		3	8	
Permitted Phases					2			4			Free
Detector Phase	1	6	5	2	2	7	4	4	3	8	
Switch Phase											
Minimum Initial (s)	6.0	15.0	6.0	15.0	15.0	6.0	8.0	8.0	6.0	8.0	
Minimum Split (s)	14.3	23.3	14.3	23.3	23.3	14.4	16.4	16.4	14.4	16.4	
Total Split (s)	22.0	73.0	27.0	78.0	78.0	20.0	25.0	25.0	25.0	30.0	
Total Split (%)	14.7%	48.7%	18.0%	52.0%	52.0%	13.3%	16.7%	16.7%	16.7%	20.0%	
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	
All-Red Time (s)	3.5	3.5	3.5	3.5	3.5	3.6	3.6	3.6	3.6	3.6	
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)	8.3	8.3	8.3	8.3	8.3	8.4	8.4	8.4	8.4	8.4	
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	C-Max	None	C-Max	C-Max	None	None	None	None	None	

Intersection Summary

Cycle Length: 150
Actuated Cycle Length: 150
Offset: 112 (75%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow
Natural Cycle: 70
Control Type: Actuated-Coordinated

Splits and Phases: 3: Skyes Creek Pkwy & SR 520



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	132	659	23	79	710	268	17	74	146	234	78	117
Future Volume (veh/h)	132	659	23	79	710	268	17	74	146	234	78	117
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1826	1826	1870	1856	1870	1811	1870	1885	1870	1885	1885
Adj Flow Rate, veh/h	143	716	25	86	772	291	18	80	159	254	85	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	1	5	5	2	3	2	6	2	1	2	1	1
Cap, veh/h	189	2671	93	134	2658	1464	36	393	177	303	334	
Arrive On Green	0.11	1.00	1.00	0.04	0.52	0.52	0.02	0.11	0.11	0.09	0.18	0.00
Sat Flow, veh/h	3483	4946	172	3456	5066	2790	1725	3554	1598	3456	1885	1598
Grp Volume(v), veh/h	143	480	261	86	772	291	18	80	159	254	85	0
Grp Sat Flow(s),veh/h/ln	1742	1662	1795	1728	1689	1395	1725	1777	1598	1728	1885	1598
Q Serve(g_s), s	6.0	0.0	0.0	3.7	12.8	8.3	1.5	3.1	14.7	10.9	5.8	0.0
Cycle Q Clear(g_c), s	6.0	0.0	0.0	3.7	12.8	8.3	1.5	3.1	14.7	10.9	5.8	0.0
Prop In Lane	1.00		0.10	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	189	1795	970	134	2658	1464	36	393	177	303	334	
V/C Ratio(X)	0.76	0.27	0.27	0.64	0.29	0.20	0.49	0.20	0.90	0.84	0.25	
Avail Cap(c_a), veh/h	318	1795	970	431	2658	1464	133	393	177	382	334	
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.92	0.92	0.92	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	65.9	0.0	0.0	71.0	20.0	18.9	72.6	60.7	65.9	67.4	53.2	0.0
Incr Delay (d2), s/veh	5.6	0.3	0.6	5.0	0.3	0.3	10.0	0.3	40.5	12.5	0.4	0.0
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	0.0
%ile BackOfQ(50%),veh/ln	2.7	0.1	0.2	1.7	5.0	2.7	0.8	1.4	7.9	5.2	2.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	71.5	0.3	0.6	76.0	20.3	19.2	82.6	60.9	106.3	79.9	53.6	0.0
LnGrp LOS	E	A	A	E	C	B	F	E	F	E	D	
Approach Vol, veh/h		884			1149			257			339	A
Approach Delay, s/veh		11.9			24.2			90.5			73.3	
Approach LOS		B			C			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.4	87.0	21.5	25.0	14.1	89.3	11.6	35.0
Change Period (Y+Rc), s	8.3	8.3	* 8.4	* 8.4	8.3	8.3	* 8.4	* 8.4
Max Green Setting (Gmax), s	13.7	69.7	* 17	* 17	18.7	64.7	* 12	* 22
Max Q Clear Time (g_c+I1), s	8.0	14.8	12.9	16.7	5.7	2.0	3.5	7.8
Green Ext Time (p_c), s	0.2	7.3	0.3	0.0	0.2	4.9	0.0	0.2

Intersection Summary	
HCM 6th Ctrl Delay	32.9
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	1	0	44	0	97	1	646	69	103	630
Future Volume (vph)	1	0	44	0	97	1	646	69	103	630
Turn Type	Perm	NA	Perm	NA	Over	Perm	NA	Perm	pm+pt	NA
Protected Phases		4		3	1		2		1	6
Permitted Phases	4		3			2		2	6	
Detector Phase	4	4	3	3	1	2	2	2	1	6
Switch Phase										
Minimum Initial (s)	7.0	7.0	1.0	1.0	5.0	12.0	12.0	12.0	5.0	12.0
Minimum Split (s)	14.0	14.0	7.6	7.6	11.6	18.2	18.2	18.2	11.6	18.2
Total Split (s)	14.0	14.0	15.0	15.0	14.0	32.0	32.0	32.0	14.0	46.0
Total Split (%)	18.7%	18.7%	20.0%	20.0%	18.7%	42.7%	42.7%	42.7%	18.7%	61.3%
Yellow Time (s)	4.0	4.0	3.6	3.6	3.6	4.0	4.0	4.0	3.6	4.0
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	2.2	2.2	2.2	3.0	2.2
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		7.0		6.6	6.6	6.2	6.2	6.2	6.6	6.2
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lag	Lag	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	C-Max	C-Max	C-Max	None	C-Max

Intersection Summary

Cycle Length: 75
Actuated Cycle Length: 75
Offset: 32 (43%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 4: Courtenay Pkwy & Fortenberry Rd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	0	0	44	0	97	1	646	69	103	630	0
Future Volume (vph)	1	0	0	44	0	97	1	646	69	103	630	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.0			6.6	6.6	6.2	6.2	6.2	6.6	6.2	
Lane Util. Factor		1.00			1.00	1.00	1.00	0.95	1.00	1.00	0.95	
Frt		1.00			1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Flt Protected		0.95			0.95	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1805			1719	1553	1805	3539	1583	1805	3471	
Flt Permitted		1.00			1.00	1.00	0.41	1.00	1.00	0.31	1.00	
Satd. Flow (perm)		1900			1810	1553	770	3539	1583	591	3471	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	1	0	0	45	0	100	1	666	71	106	649	0
RTOR Reduction (vph)	0	0	0	0	0	93	0	0	36	0	0	0
Lane Group Flow (vph)	0	1	0	0	45	7	1	666	35	106	649	0
Heavy Vehicles (%)	0%	0%	0%	5%	0%	4%	0%	2%	2%	0%	4%	0%
Turn Type	Perm	NA		Perm	NA	Over	Perm	NA	Perm	pm+pt	NA	
Protected Phases		4			3	1		2		1	6	
Permitted Phases	4			3			2		2	6		
Actuated Green, G (s)		1.4			4.8	5.4	37.0	37.0	37.0	49.0	49.0	
Effective Green, g (s)		1.4			4.8	5.4	37.0	37.0	37.0	49.0	49.0	
Actuated g/C Ratio		0.02			0.06	0.07	0.49	0.49	0.49	0.65	0.65	
Clearance Time (s)		7.0			6.6	6.6	6.2	6.2	6.2	6.6	6.2	
Vehicle Extension (s)		3.0			3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		35			115	111	379	1745	780	473	2267	
v/s Ratio Prot						0.00		c0.19		0.02	c0.19	
v/s Ratio Perm		c0.00			c0.02		0.00		0.02	0.13		
v/c Ratio		0.03			0.39	0.06	0.00	0.38	0.04	0.22	0.29	
Uniform Delay, d1		36.1			33.7	32.4	9.6	11.9	9.8	5.5	5.5	
Progression Factor		1.00			1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		0.3			2.2	0.2	0.0	0.6	0.1	0.2	0.3	
Delay (s)		36.5			35.9	32.7	9.7	12.5	10.0	5.7	5.9	
Level of Service		D			D	C	A	B	A	A	A	
Approach Delay (s)		36.5			33.7			12.2			5.8	
Approach LOS		D			C			B			A	

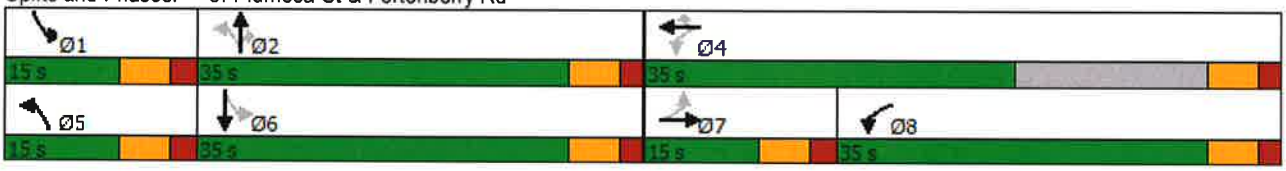
Intersection Summary			
HCM 2000 Control Delay	11.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	26.4
Intersection Capacity Utilization	49.4%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

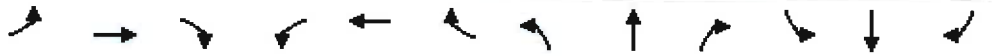
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	13	64	101	61	66	15	133	134	36	179
Future Volume (vph)	13	64	101	61	66	15	133	134	36	179
Turn Type	Perm	NA	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA
Protected Phases		7	8	4		5	2		1	6
Permitted Phases	7		4		4	2		2	6	
Detector Phase	7	7	8	4	4	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	7.0	7.0	7.0	5.0	14.0	14.0	5.0	14.0
Minimum Split (s)	11.0	11.0	13.0	13.0	13.0	11.0	20.0	20.0	11.0	20.0
Total Split (s)	15.0	15.0	35.0	35.0	35.0	15.0	35.0	35.0	15.0	35.0
Total Split (%)	15.0%	15.0%	35.0%	35.0%	35.0%	15.0%	35.0%	35.0%	15.0%	35.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lead	Lag			Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes			Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 65.2
Natural Cycle: 55
Control Type: Actuated-Uncoordinated

Splits and Phases: 5: Plumosa St & Fortenberry Rd





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	64	46	101	61	66	15	133	134	36	179	25
Future Volume (vph)	13	64	46	101	61	66	15	133	134	36	179	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0		6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.94		1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1805	1740		1770	1900	1538	1805	1810	1615	1805	1814	
Flt Permitted	0.71	1.00		0.68	1.00	1.00	0.62	1.00	1.00	0.62	1.00	
Satd. Flow (perm)	1355	1740		1265	1900	1538	1175	1810	1615	1182	1814	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	14	70	51	111	67	73	16	146	147	40	197	27
RTOR Reduction (vph)	0	26	0	0	0	56	0	0	78	0	4	0
Lane Group Flow (vph)	14	95	0	111	67	17	16	146	69	40	220	0
Heavy Vehicles (%)	0%	4%	0%	2%	0%	5%	0%	5%	0%	0%	2%	9%
Turn Type	Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases		7		8	4		5	2		1	6	
Permitted Phases	7			4		4	2		2	6		
Actuated Green, G (s)	6.3	6.3		17.4	17.4	17.4	35.2	34.1	34.1	39.8	36.4	
Effective Green, g (s)	6.3	6.3		17.4	17.4	17.4	35.2	34.1	34.1	39.8	36.4	
Actuated g/C Ratio	0.09	0.09		0.24	0.24	0.24	0.48	0.47	0.47	0.55	0.50	
Clearance Time (s)	6.0	6.0		6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	117	150		337	453	367	576	846	755	674	905	
v/s Ratio Prot		c0.05		c0.02	0.04		0.00	0.08		c0.00	c0.12	
v/s Ratio Perm	0.01			0.06		0.01	0.01		0.04	0.03		
v/c Ratio	0.12	0.63		0.33	0.15	0.05	0.03	0.17	0.09	0.06	0.24	
Uniform Delay, d1	30.7	32.2		23.2	21.9	21.4	9.8	11.2	10.8	7.7	10.4	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.5	8.3		0.6	0.2	0.1	0.0	0.4	0.2	0.0	0.6	
Delay (s)	31.2	40.5		23.7	22.1	21.4	9.9	11.7	11.0	7.8	11.0	
Level of Service	C	D		C	C	C	A	B	B	A	B	
Approach Delay (s)		39.5			22.6			11.3			10.5	
Approach LOS		D			C			B			B	

Intersection Summary				
HCM 2000 Control Delay	18.0	HCM 2000 Level of Service	B	
HCM 2000 Volume to Capacity ratio	0.31			
Actuated Cycle Length (s)	72.9	Sum of lost time (s)	24.0	
Intersection Capacity Utilization	43.1%	ICU Level of Service	A	
Analysis Period (min)	15			
c Critical Lane Group				

Intersection	
Int Delay, s/veh	1.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	218	16	4	175	53	11
Future Vol, veh/h	218	16	4	175	53	11
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	237	17	4	190	58	12

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	254	0	444	246
Stage 1	-	-	-	-	246	-
Stage 2	-	-	-	-	198	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1311	-	571	793
Stage 1	-	-	-	-	795	-
Stage 2	-	-	-	-	835	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1311	-	569	793
Mov Cap-2 Maneuver	-	-	-	-	569	-
Stage 1	-	-	-	-	795	-
Stage 2	-	-	-	-	832	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	11.8
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	598	-	-	1311	-
HCM Lane V/C Ratio	0.116	-	-	0.003	-
HCM Control Delay (s)	11.8	-	-	7.8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.4	-	-	0	-

Intersection	
Int Delay, s/veh	1.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	221	8	7	152	27	24
Future Vol, veh/h	221	8	7	152	27	24
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	240	9	8	165	29	26

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	249	0	426	245
Stage 1	-	-	-	-	245	-
Stage 2	-	-	-	-	181	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1317	-	585	794
Stage 1	-	-	-	-	796	-
Stage 2	-	-	-	-	850	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1317	-	581	794
Mov Cap-2 Maneuver	-	-	-	-	581	-
Stage 1	-	-	-	-	796	-
Stage 2	-	-	-	-	844	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	10.9
HCM LOS			B

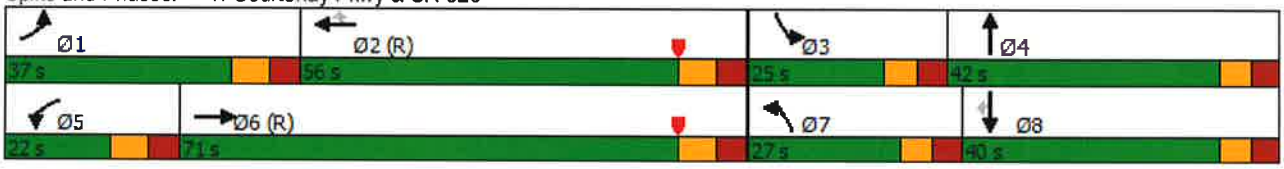
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	665	-	-	1317	-
HCM Lane V/C Ratio	0.083	-	-	0.006	-
HCM Control Delay (s)	10.9	-	-	7.7	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.3	-	-	0	-

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	464	912	140	964	293	369	583	325	557	504
Future Volume (vph)	464	912	140	964	293	369	583	325	557	504
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	1	6	5	2		7	4	3	8	
Permitted Phases					2					8
Detector Phase	1	6	5	2	2	7	4	3	8	8
Switch Phase										
Minimum Initial (s)	6.0	15.0	6.0	15.0	15.0	6.0	8.0	6.0	8.0	8.0
Minimum Split (s)	14.7	23.7	14.7	23.7	23.7	13.9	15.9	13.9	15.9	15.9
Total Split (s)	37.0	71.0	22.0	56.0	56.0	27.0	42.0	25.0	40.0	40.0
Total Split (%)	23.1%	44.4%	13.8%	35.0%	35.0%	16.9%	26.3%	15.6%	25.0%	25.0%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.1	4.1	4.1	4.1	4.1
All-Red Time (s)	3.9	3.9	3.9	3.9	3.9	3.8	3.8	3.8	3.8	3.8
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)	8.7	8.7	8.7	8.7	8.7	7.9	7.9	7.9	7.9	7.9
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	C-Max	None	None	None	None	None

Intersection Summary

Cycle Length: 160
Actuated Cycle Length: 160
Offset: 20 (13%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow
Natural Cycle: 100
Control Type: Actuated-Coordinated

Splits and Phases: 1: Courtenay Pkwy & SR 520



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	464	912	173	140	964	293	369	583	72	325	557	504
Future Volume (veh/h)	464	912	173	140	964	293	369	583	72	325	557	504
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1885	1885	1885	1870	1885	1870	1870	1900	1900	1900	1885
Adj Flow Rate, veh/h	494	970	184	149	1026	312	393	620	77	346	593	536
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	1	1	1	2	1	2	2	0	0	0	1
Cap, veh/h	546	1810	342	195	1619	506	413	678	84	375	724	564
Arrive On Green	0.16	0.42	0.42	0.02	0.10	0.10	0.12	0.21	0.21	0.11	0.20	0.20
Sat Flow, veh/h	3510	4346	822	3483	5106	1598	3456	3182	394	3510	3610	2812
Grp Volume(v), veh/h	494	765	389	149	1026	312	393	346	351	346	593	536
Grp Sat Flow(s),veh/h/ln	1755	1716	1737	1742	1702	1598	1728	1777	1799	1755	1805	1406
Q Serve(g_s), s	22.1	26.8	26.9	6.8	30.8	29.9	18.1	30.4	30.5	15.6	25.1	30.1
Cycle Q Clear(g_c), s	22.1	26.8	26.9	6.8	30.8	29.9	18.1	30.4	30.5	15.6	25.1	30.1
Prop In Lane	1.00		0.47	1.00		1.00	1.00		0.22	1.00		1.00
Lane Grp Cap(c), veh/h	546	1429	724	195	1619	506	413	379	383	375	724	564
V/C Ratio(X)	0.91	0.54	0.54	0.76	0.63	0.62	0.95	0.91	0.92	0.92	0.82	0.95
Avail Cap(c_a), veh/h	621	1429	724	290	1619	506	413	379	383	375	724	564
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.78	0.78	0.78	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	66.4	35.1	35.1	77.5	62.7	62.3	70.0	61.5	61.5	70.8	61.2	63.2
Incr Delay (d2), s/veh	15.6	1.4	2.9	5.3	1.5	4.3	32.3	25.9	26.2	27.8	7.4	26.0
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	0.0
%ile BackOfQ(50%),veh/ln	10.9	11.3	11.8	3.3	14.4	13.5	9.8	16.4	16.7	8.5	12.2	12.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	82.1	36.5	37.9	82.8	64.2	66.6	102.3	87.4	87.8	98.6	68.5	89.1
LnGrp LOS	F	D	D	F	E	E	F	F	F	F	E	F
Approach Vol, veh/h		1648			1487			1090			1475	
Approach Delay, s/veh		50.5			66.6			92.9			83.1	
Approach LOS		D			E			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	33.6	59.4	25.0	42.0	17.7	75.3	27.0	40.0
Change Period (Y+Rc), s	* 8.7	* 8.7	* 7.9	* 7.9	* 8.7	* 8.7	* 7.9	* 7.9
Max Green Setting (Gmax), s	* 28	* 47	* 17	* 34	* 13	* 62	* 19	* 32
Max Q Clear Time (g_c+I1), s	24.1	32.8	17.6	32.5	8.8	28.9	20.1	32.1
Green Ext Time (p_c), s	0.7	6.6	0.0	0.7	0.2	8.5	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	71.2
HCM 6th LOS	E

Notes

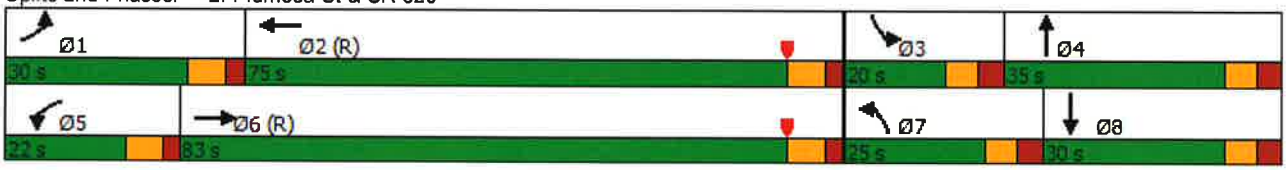
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	124	1232	90	1296	121	101	60	77
Future Volume (vph)	124	1232	90	1296	121	101	60	77
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	1	6	5	2	7	4	3	8
Permitted Phases								
Detector Phase	1	6	5	2	7	4	3	8
Switch Phase								
Minimum Initial (s)	6.0	15.0	6.0	15.0	6.0	8.0	6.0	8.0
Minimum Split (s)	13.2	22.2	13.2	22.2	13.4	15.4	13.4	15.4
Total Split (s)	30.0	83.0	22.0	75.0	25.0	35.0	20.0	30.0
Total Split (%)	18.8%	51.9%	13.8%	46.9%	15.6%	21.9%	12.5%	18.8%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.0	4.0	4.0	4.0
All-Red Time (s)	2.3	2.3	2.3	2.3	3.4	3.4	3.4	3.4
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.1	7.1	7.1	7.1	7.4	7.4	7.4	7.4
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Min	None	None	Max	None

Intersection Summary

Cycle Length: 160
Actuated Cycle Length: 160
Offset: 102 (64%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 2: Plumosa St & SR 520



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	124	1232	129	90	1296	102	121	101	64	60	77	110
Future Volume (veh/h)	124	1232	129	90	1296	102	121	101	64	60	77	110
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1811	1885	1870	1900	1870	1856	1870	1900	1870	1841	1885	1885
Adj Flow Rate, veh/h	128	1270	133	93	1336	105	125	104	66	62	79	113
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	0.97
Percent Heavy Veh, %	6	1	2	0	2	3	2	0	2	4	1	1
Cap, veh/h	150	2599	272	112	2532	199	146	140	89	138	88	126
Arrive On Green	0.06	0.37	0.37	0.12	1.00	1.00	0.08	0.13	0.13	0.08	0.13	0.13
Sat Flow, veh/h	1725	4732	495	1810	4827	379	1781	1086	689	1753	701	1003
Grp Volume(v), veh/h	128	921	482	93	942	499	125	0	170	62	0	192
Grp Sat Flow(s),veh/h/ln	1725	1716	1796	1810	1702	1802	1781	0	1776	1753	0	1705
Q Serve(g_s), s	11.8	33.1	33.1	8.0	0.0	0.0	11.1	0.0	14.8	5.4	0.0	17.8
Cycle Q Clear(g_c), s	11.8	33.1	33.1	8.0	0.0	0.0	11.1	0.0	14.8	5.4	0.0	17.8
Prop In Lane	1.00		0.28	1.00		0.21	1.00		0.39	1.00		0.59
Lane Grp Cap(c), veh/h	150	1885	987	112	1785	945	146	0	228	138	0	213
V/C Ratio(X)	0.85	0.49	0.49	0.83	0.53	0.53	0.85	0.00	0.74	0.45	0.00	0.90
Avail Cap(c_a), veh/h	247	1885	987	169	1785	945	196	0	306	138	0	241
HCM Platoon Ratio	0.67	0.67	0.67	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.71	0.71	0.71	0.95	0.95	0.95	0.98	0.00	0.98	1.00	0.00	1.00
Uniform Delay (d), s/veh	74.3	33.2	33.2	69.2	0.0	0.0	72.5	0.0	67.2	70.4	0.0	69.0
Incr Delay (d2), s/veh	10.5	0.6	1.2	17.7	1.1	2.0	22.7	0.0	6.4	10.2	0.0	30.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.7	14.6	15.5	4.0	0.3	0.5	6.0	0.0	7.1	2.9	0.0	9.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	84.9	33.9	34.5	86.9	1.1	2.0	95.2	0.0	73.6	80.6	0.0	99.6
LnGrp LOS	F	C	C	F	A	A	F	A	E	F	A	F
Approach Vol, veh/h		1531			1534			295			254	
Approach Delay, s/veh		38.3			6.6			82.8			95.0	
Approach LOS		D			A			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.0	91.0	20.0	28.0	17.0	95.0	20.5	27.4
Change Period (Y+Rc), s	* 7.1	* 7.1	7.4	7.4	* 7.1	* 7.1	7.4	7.4
Max Green Setting (Gmax), s	* 23	* 68	12.6	27.6	* 15	* 76	17.6	22.6
Max Q Clear Time (g_c+I1), s	13.8	2.0	7.4	16.8	10.0	35.1	13.1	19.8
Green Ext Time (p_c), s	0.2	13.0	0.0	0.6	0.1	11.6	0.1	0.3

Intersection Summary	
HCM 6th Ctrl Delay	32.5
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	214	893	164	895	302	64	124	200	329	138	162
Future Volume (vph)	214	893	164	895	302	64	124	200	329	138	162
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Free
Protected Phases	1	6	5	2		7	4		3	8	
Permitted Phases					2			4			Free
Detector Phase	1	6	5	2	2	7	4	4	3	8	
Switch Phase											
Minimum Initial (s)	6.0	15.0	6.0	15.0	15.0	6.0	8.0	8.0	6.0	8.0	
Minimum Split (s)	14.3	23.3	14.3	23.3	23.3	14.4	16.4	16.4	14.4	16.4	
Total Split (s)	30.0	63.0	25.0	58.0	58.0	25.0	34.0	34.0	38.0	47.0	
Total Split (%)	18.8%	39.4%	15.6%	36.3%	36.3%	15.6%	21.3%	21.3%	23.8%	29.4%	
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	
All-Red Time (s)	3.5	3.5	3.5	3.5	3.5	3.6	3.6	3.6	3.6	3.6	
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)	8.3	8.3	8.3	8.3	8.3	8.4	8.4	8.4	8.4	8.4	
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	C-Max	None	C-Max	C-Max	None	None	None	None	None	

Intersection Summary

Cycle Length: 160
Actuated Cycle Length: 160
Offset: 105 (66%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow
Natural Cycle: 75
Control Type: Actuated-Coordinated

Splits and Phases: 3: Skyes Creek Pkwy & SR 520



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	214	893	30	164	895	302	64	124	200	329	138	162
Future Volume (veh/h)	214	893	30	164	895	302	64	124	200	329	138	162
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1900	1870	1856	1856	1900	1870	1870	1885	1856	1885
Adj Flow Rate, veh/h	223	930	31	171	932	315	67	129	208	343	144	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	1	1	0	2	3	3	0	2	2	1	3	1
Cap, veh/h	270	2399	80	217	2302	1258	85	513	229	400	394	
Arrive On Green	0.16	0.94	0.94	0.06	0.45	0.45	0.05	0.14	0.14	0.11	0.21	0.00
Sat Flow, veh/h	3483	5115	170	3456	5066	2768	1810	3554	1585	3483	1856	1598
Grp Volume(v), veh/h	223	623	338	171	932	315	67	129	208	343	144	0
Grp Sat Flow(s),veh/h/ln	1742	1716	1855	1728	1689	1384	1810	1777	1585	1742	1856	1598
Q Serve(g_s), s	9.9	2.8	2.8	7.8	19.7	11.2	5.9	5.2	20.7	15.5	10.6	0.0
Cycle Q Clear(g_c), s	9.9	2.8	2.8	7.8	19.7	11.2	5.9	5.2	20.7	15.5	10.6	0.0
Prop In Lane	1.00		0.09	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	270	1609	870	217	2302	1258	85	513	229	400	394	
V/C Ratio(X)	0.83	0.39	0.39	0.79	0.40	0.25	0.79	0.25	0.91	0.86	0.37	
Avail Cap(c_a), veh/h	472	1609	870	361	2302	1258	188	569	254	644	448	
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.84	0.84	0.84	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	66.5	2.7	2.7	73.9	29.2	26.9	75.4	60.8	67.4	69.5	53.8	0.0
Incr Delay (d2), s/veh	5.4	0.6	1.1	6.2	0.5	0.5	14.6	0.3	31.8	6.5	0.6	0.0
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	0.0
%ile BackOfQ(50%),veh/ln	4.3	0.9	1.1	3.6	8.0	3.8	3.1	2.4	10.3	7.2	5.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	71.9	3.3	3.8	80.1	29.7	27.3	90.1	61.0	99.2	76.0	54.4	0.0
LnGrp LOS	E	A	A	F	C	C	F	E	F	E	D	
Approach Vol, veh/h		1184			1418			404			487	A
Approach Delay, s/veh		16.4			35.3			85.5			69.6	
Approach LOS		B			D			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.7	81.0	26.8	31.5	18.4	83.3	15.9	42.4
Change Period (Y+Rc), s	8.3	8.3	* 8.4	* 8.4	8.3	8.3	* 8.4	* 8.4
Max Green Setting (Gmax), s	21.7	49.7	* 30	* 26	16.7	54.7	* 17	* 39
Max Q Clear Time (g_c+I1), s	11.9	21.7	17.5	22.7	9.8	4.8	7.9	12.6
Green Ext Time (p_c), s	0.5	8.2	0.9	0.4	0.3	6.8	0.1	0.7

Intersection Summary	
HCM 6th Ctrl Delay	39.5
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	1	0	95	0	193	3	738	66	84	854
Future Volume (vph)	1	0	95	0	193	3	738	66	84	854
Turn Type	Perm	NA	Perm	NA	Over	Perm	NA	Perm	pm+pt	NA
Protected Phases		4		3	1		2		1	6
Permitted Phases	4		3			2		2	6	
Detector Phase	4	4	3	3	1	2	2	2	1	6
Switch Phase										
Minimum Initial (s)	7.0	7.0	7.0	7.0	5.0	12.0	12.0	12.0	5.0	12.0
Minimum Split (s)	14.0	14.0	13.6	13.6	11.6	18.2	18.2	18.2	11.6	18.2
Total Split (s)	14.0	14.0	23.6	23.6	14.2	28.2	28.2	28.2	14.2	42.4
Total Split (%)	17.5%	17.5%	29.5%	29.5%	17.8%	35.3%	35.3%	35.3%	17.8%	53.0%
Yellow Time (s)	4.0	4.0	3.6	3.6	3.6	4.0	4.0	4.0	3.6	4.0
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	2.2	2.2	2.2	3.0	2.2
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		7.0		6.6	6.6	6.2	6.2	6.2	6.6	6.2
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lag	Lag	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	C-Max	C-Max	C-Max	None	C-Max

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 57.8 (72%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
Natural Cycle: 65
Control Type: Actuated-Coordinated

Splits and Phases: 4: Courtenay Pkwy & Fortenberry Rd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	0	2	95	0	193	3	738	66	84	854	1
Future Volume (vph)	1	0	2	95	0	193	3	738	66	84	854	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.0			6.6	6.6	6.2	6.2	6.2	6.6	6.2	
Lane Util. Factor		1.00			1.00	1.00	1.00	0.95	1.00	1.00	0.95	
Frt		0.91			1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Flt Protected		0.98			0.95	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1701			1805	1599	1805	3539	1538	1805	3574	
Flt Permitted		1.00			0.36	1.00	0.31	1.00	1.00	0.22	1.00	
Satd. Flow (perm)		1729			679	1599	590	3539	1538	411	3574	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	1	0	2	102	0	208	3	794	71	90	918	1
RTOR Reduction (vph)	0	3	0	0	0	190	0	0	43	0	0	0
Lane Group Flow (vph)	0	0	0	0	102	18	3	794	28	90	919	0
Heavy Vehicles (%)	0%	0%	0%	0%	0%	1%	0%	2%	5%	0%	1%	0%
Turn Type	Perm	NA		Perm	NA	Over	Perm	NA	Perm	pm+pt	NA	
Protected Phases		4			3	1		2		1	6	
Permitted Phases	4			3			2		2	6		
Actuated Green, G (s)		1.4			13.3	6.8	32.1	32.1	32.1	45.5	45.5	
Effective Green, g (s)		1.4			13.3	6.8	32.1	32.1	32.1	45.5	45.5	
Actuated g/C Ratio		0.02			0.17	0.08	0.40	0.40	0.40	0.57	0.57	
Clearance Time (s)		7.0			6.6	6.6	6.2	6.2	6.2	6.6	6.2	
Vehicle Extension (s)		3.0			3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		30			112	135	236	1420	617	352	2032	
v/s Ratio Prot						0.01		c0.22		0.02	c0.26	
v/s Ratio Perm		c0.00			c0.15		0.01		0.02	0.12		
v/c Ratio		0.00			0.91	0.13	0.01	0.56	0.05	0.26	0.45	
Uniform Delay, d1		38.6			32.8	33.9	14.4	18.5	14.6	9.4	10.0	
Progression Factor		1.00			1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		0.0			57.6	0.4	0.1	1.6	0.1	0.4	0.7	
Delay (s)		38.6			90.4	34.3	14.5	20.1	14.8	9.8	10.7	
Level of Service		D			F	C	B	C	B	A	B	
Approach Delay (s)		38.6			52.8			19.6			10.7	
Approach LOS		D			D			B			B	

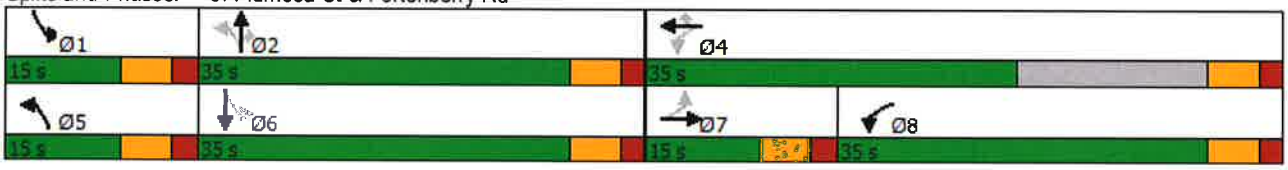
Intersection Summary			
HCM 2000 Control Delay	20.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	26.4
Intersection Capacity Utilization	61.4%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	27	125	146	137	85	39	169	172	82	133
Future Volume (vph)	27	125	146	137	85	39	169	172	82	133
Turn Type	Perm	NA	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA
Protected Phases		7	8	4		5	2		1	6
Permitted Phases	7		4		4	2		2	6	
Detector Phase	7	7	8	4	4	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	7.0	7.0	7.0	5.0	14.0	14.0	5.0	14.0
Minimum Split (s)	11.0	11.0	13.0	13.0	13.0	11.0	20.0	20.0	11.0	20.0
Total Split (s)	15.0	15.0	35.0	35.0	35.0	15.0	35.0	35.0	15.0	35.0
Total Split (%)	15.0%	15.0%	35.0%	35.0%	35.0%	15.0%	35.0%	35.0%	15.0%	35.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lead	Lag			Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes			Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 74.9
Natural Cycle: 60
Control Type: Actuated-Uncoordinated

Splits and Phases: 5: Plumosa St & Fortenberry Rd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	27	125	37	146	137	85	39	169	172	82	133	30
Future Volume (vph)	27	125	37	146	137	85	39	169	172	82	133	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0		6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.97		1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.97	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1805	1821		1770	1900	1583	1805	1881	1568	1736	1833	
Flt Permitted	0.66	1.00		0.58	1.00	1.00	0.64	1.00	1.00	0.60	1.00	
Satd. Flow (perm)	1255	1821		1073	1900	1583	1222	1881	1568	1092	1833	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	30	139	41	162	152	94	43	188	191	91	148	33
RTOR Reduction (vph)	0	11	0	0	0	66	0	0	116	0	6	0
Lane Group Flow (vph)	30	169	0	162	152	28	43	188	75	91	175	0
Heavy Vehicles (%)	0%	1%	0%	2%	0%	2%	0%	1%	3%	4%	1%	0%
Turn Type	Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases		7		8	4		5	2		1	6	
Permitted Phases	7			4		4	2		2	6		
Actuated Green, G (s)	9.1	9.1		23.0	23.0	23.0	34.3	30.4	30.4	38.5	32.5	
Effective Green, g (s)	9.1	9.1		23.0	23.0	23.0	34.3	30.4	30.4	38.5	32.5	
Actuated g/C Ratio	0.12	0.12		0.30	0.30	0.30	0.44	0.39	0.39	0.50	0.42	
Clearance Time (s)	6.0	6.0		6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	147	214		389	564	470	570	738	615	593	769	
v/s Ratio Prot		c0.09		c0.04	0.08		0.00	c0.10		c0.01	0.10	
v/s Ratio Perm	0.02			0.08		0.02	0.03		0.05	0.06		
v/c Ratio	0.20	0.79		0.42	0.27	0.06	0.08	0.25	0.12	0.15	0.23	
Uniform Delay, d1	30.9	33.2		23.4	20.8	19.5	12.3	15.9	15.0	10.3	14.4	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.7	17.9		0.7	0.3	0.1	0.1	0.8	0.4	0.1	0.7	
Delay (s)	31.6	51.1		24.1	21.0	19.5	12.3	16.7	15.4	10.5	15.1	
Level of Service	C	D		C	C	B	B	B	B	B	B	
Approach Delay (s)		48.3			21.9			15.7			13.5	
Approach LOS		D			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	22.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.37		
Actuated Cycle Length (s)	77.4	Sum of lost time (s)	24.0
Intersection Capacity Utilization	53.1%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Int Delay, s/veh	0.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	339	41	9	342	26	6
Future Vol, veh/h	339	41	9	342	26	6
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	368	45	10	372	28	7

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	413	0	783	391
Stage 1	-	-	-	-	391	-
Stage 2	-	-	-	-	392	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1146	-	362	658
Stage 1	-	-	-	-	683	-
Stage 2	-	-	-	-	683	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1146	-	358	658
Mov Cap-2 Maneuver	-	-	-	-	358	-
Stage 1	-	-	-	-	683	-
Stage 2	-	-	-	-	675	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	15.1
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	391	-	-	1146	-
HCM Lane V/C Ratio	0.089	-	-	0.009	-
HCM Control Delay (s)	15.1	-	-	8.2	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.3	-	-	0	-

Intersection	
Int Delay, s/veh	0.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	325	20	18	338	13	12
Future Vol, veh/h	325	20	18	338	13	12
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	353	22	20	367	14	13

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	375	0	771	364
Stage 1	-	-	-	-	364	-
Stage 2	-	-	-	-	407	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1183	-	368	681
Stage 1	-	-	-	-	703	-
Stage 2	-	-	-	-	672	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1183	-	360	681
Mov Cap-2 Maneuver	-	-	-	-	360	-
Stage 1	-	-	-	-	703	-
Stage 2	-	-	-	-	658	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	13.2
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	465	-	-	1183	-
HCM Lane V/C Ratio	0.058	-	-	0.017	-
HCM Control Delay (s)	13.2	-	-	8.1	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0.1	-

APPENDIX H
ITE Excerpts

Land Use: 221
Multifamily Housing (Mid-Rise)

Description

Mid-rise multifamily housing includes apartments and condominiums located in a building that has between four and 10 floors of living space. Access to individual dwelling units is through an outside building entrance, a lobby, elevator, and a set of hallways.

Multifamily housing (low-rise) (Land Use 220), multifamily housing (high-rise) (Land Use 222), off-campus student apartment (mid-rise) (Land Use 226), and mid-rise residential with ground-floor commercial (Land Use 231) are related land uses.

Land Use Subcategory

Data are presented for two subcategories for this land use: (1) not close to rail transit and (2) close to rail transit. A site is considered close to rail transit if the walking distance between the residential site entrance and the closest rail transit station entrance is ½ mile or less.

Additional Data

For the six sites for which both the number of residents and the number of occupied dwelling units were available, there were an average of 2.5 residents per occupied dwelling unit.

For the five sites for which the numbers of both total dwelling units and occupied dwelling units were available, an average of 96 percent of the total dwelling units were occupied.

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

It is expected that the number of bedrooms and number of residents are likely correlated to the trips generated by a residential site. To assist in future analysis, trip generation studies of all multifamily housing should attempt to obtain information on occupancy rate and on the mix of residential unit sizes (i.e., number of units by number of bedrooms at the site complex).

The sites were surveyed in the 1990s, the 2000s, the 2010s, and the 2020s in Alberta (CAN), California, District of Columbia, Florida, Georgia, Illinois, Maryland, Massachusetts, Minnesota, Montana, New Jersey, New York, Ontario (CAN), Oregon, Utah, and Virginia.

Source Numbers

168, 188, 204, 305, 306, 321, 818, 857, 862, 866, 901, 904, 910, 949, 951, 959, 963, 964, 966, 967, 969, 970, 1004, 1014, 1022, 1023, 1025, 1031, 1032, 1035, 1047, 1056, 1057, 1058, 1071, 1076

Multifamily Housing (Mid-Rise)
Not Close to Rail Transit (221)

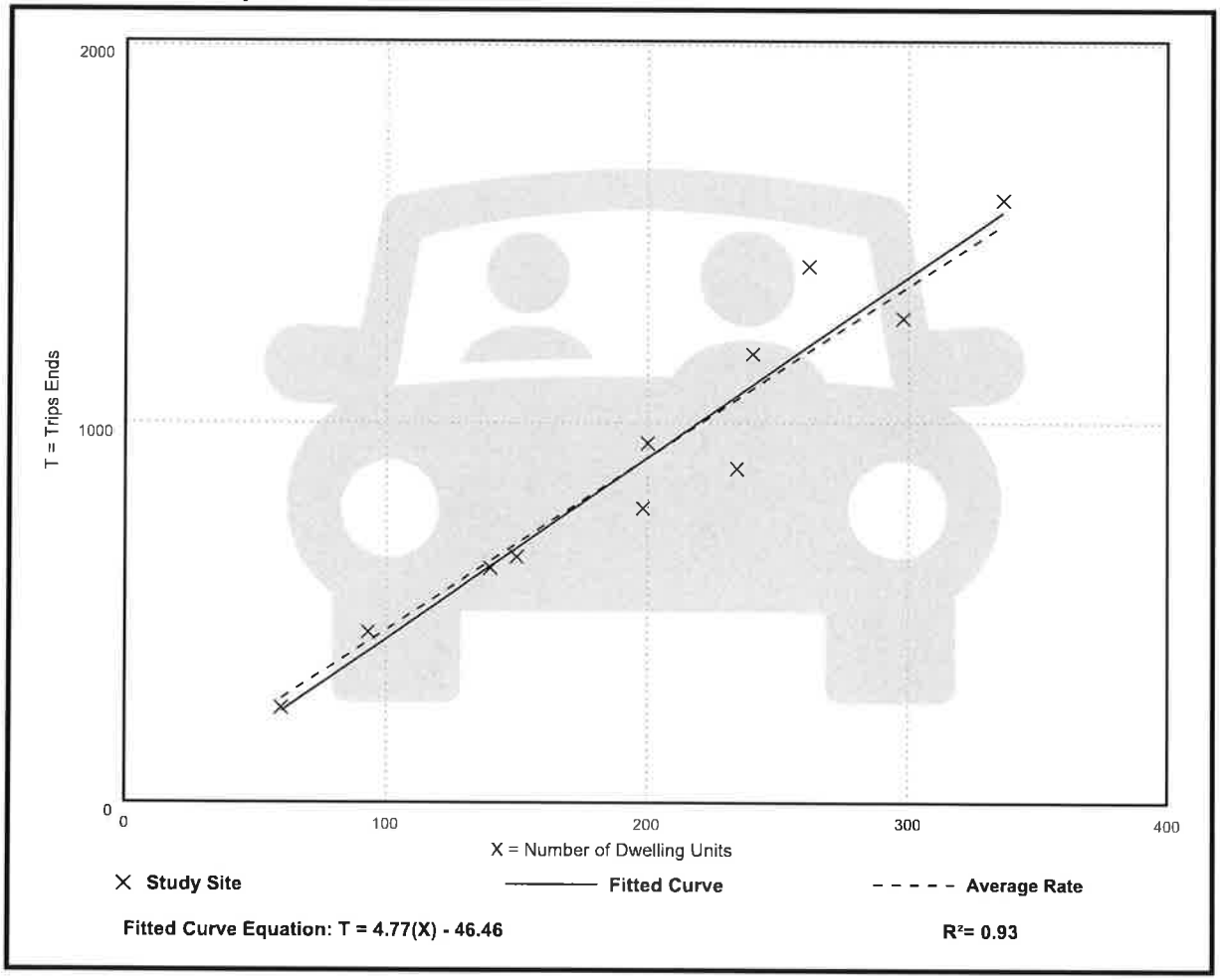
Vehicle Trip Ends vs: Dwelling Units
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 11
Avg. Num. of Dwelling Units: 201
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
4.54	3.76 - 5.40	0.51

Data Plot and Equation



Fitted Curve Equation: T = 4.77(X) - 46.46

R^2= 0.93

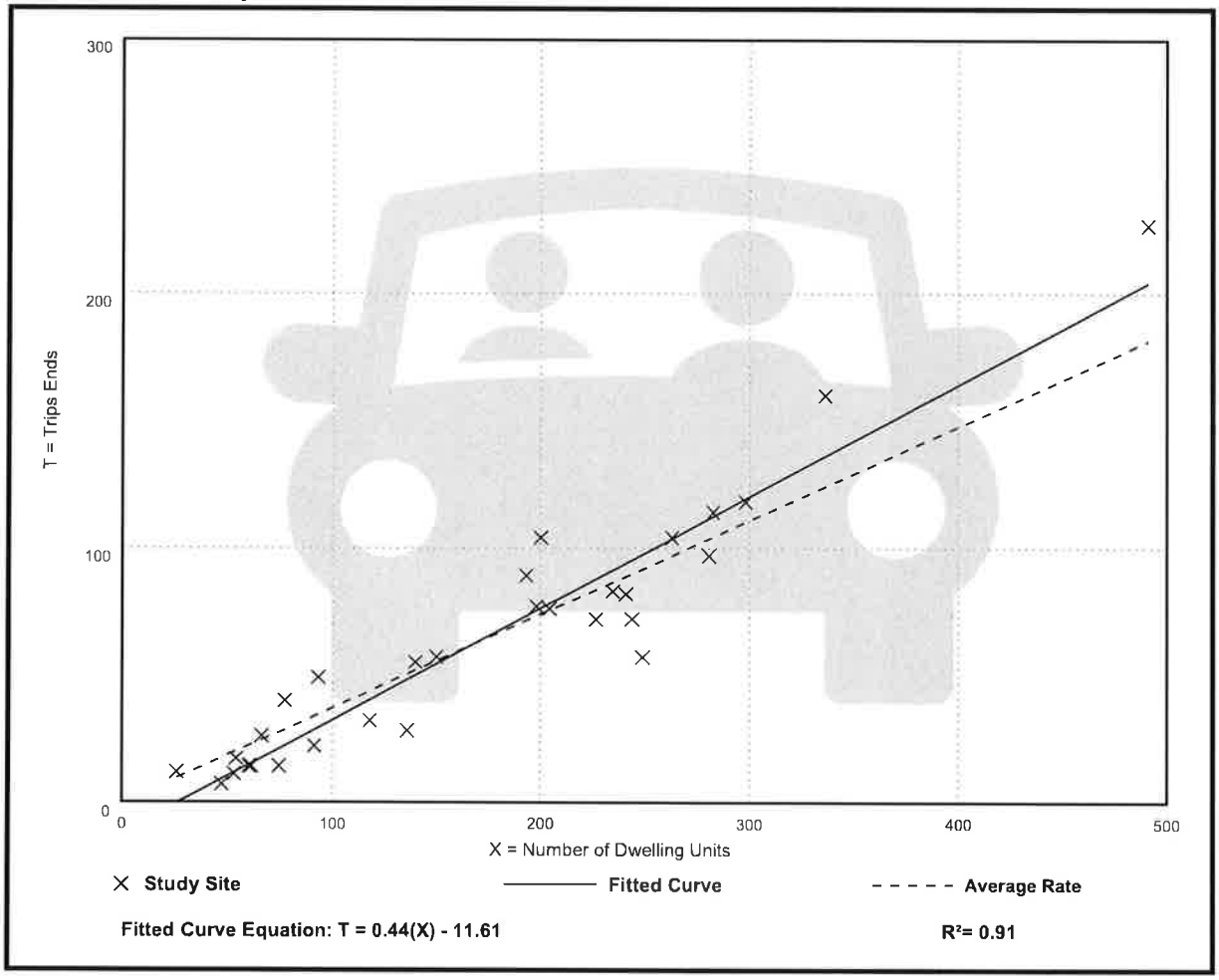
Multifamily Housing (Mid-Rise)
Not Close to Rail Transit (221)

Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: General Urban/Suburban
Number of Studies: 30
Avg. Num. of Dwelling Units: 173
Directional Distribution: 23% entering, 77% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.37	0.15 - 0.53	0.09

Data Plot and Equation



Fitted Curve Equation: T = 0.44(X) - 11.61

R^2= 0.91

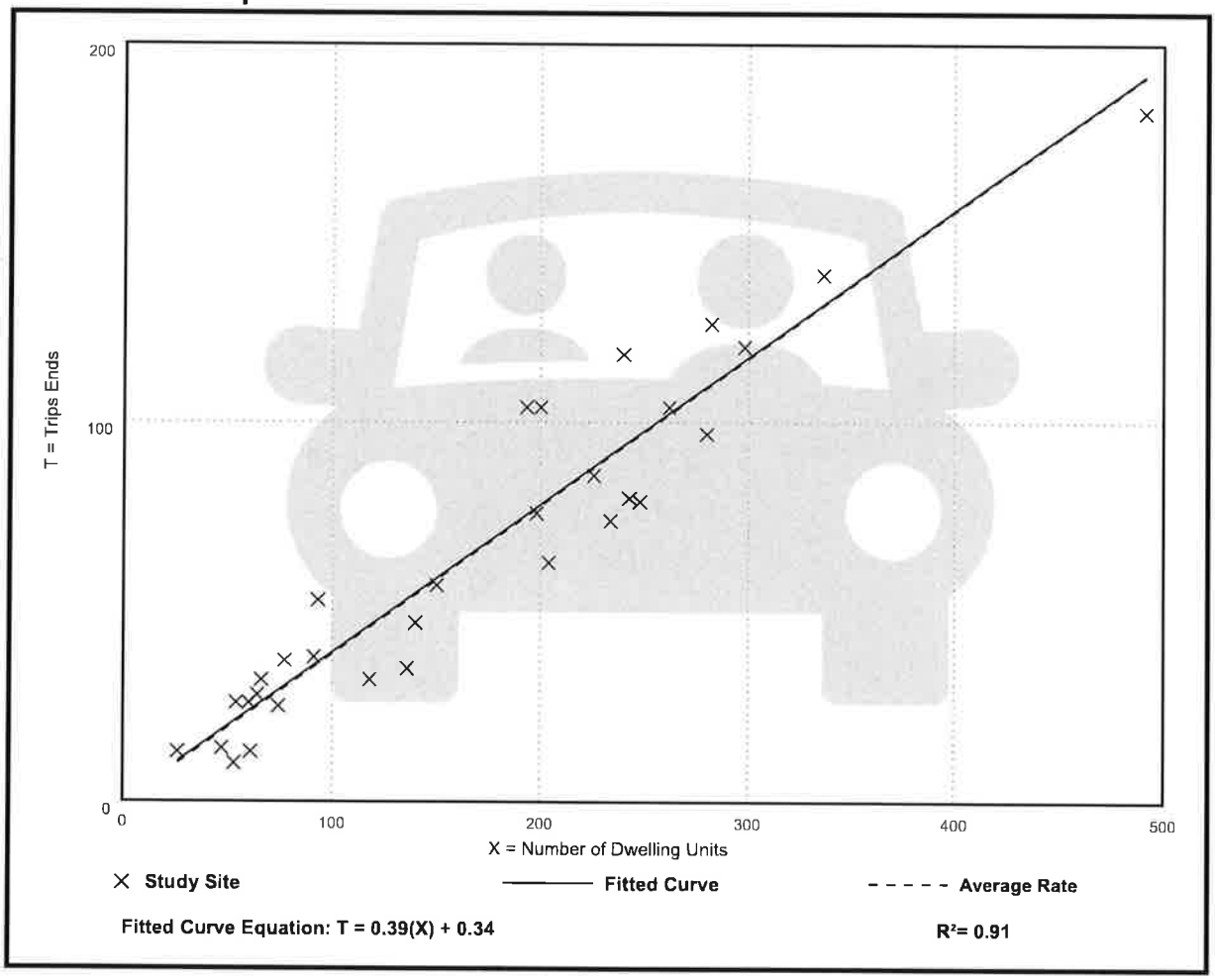
Multifamily Housing (Mid-Rise)
Not Close to Rail Transit (221)

Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
Number of Studies: 31
Avg. Num. of Dwelling Units: 169
Directional Distribution: 61% entering, 39% exiting

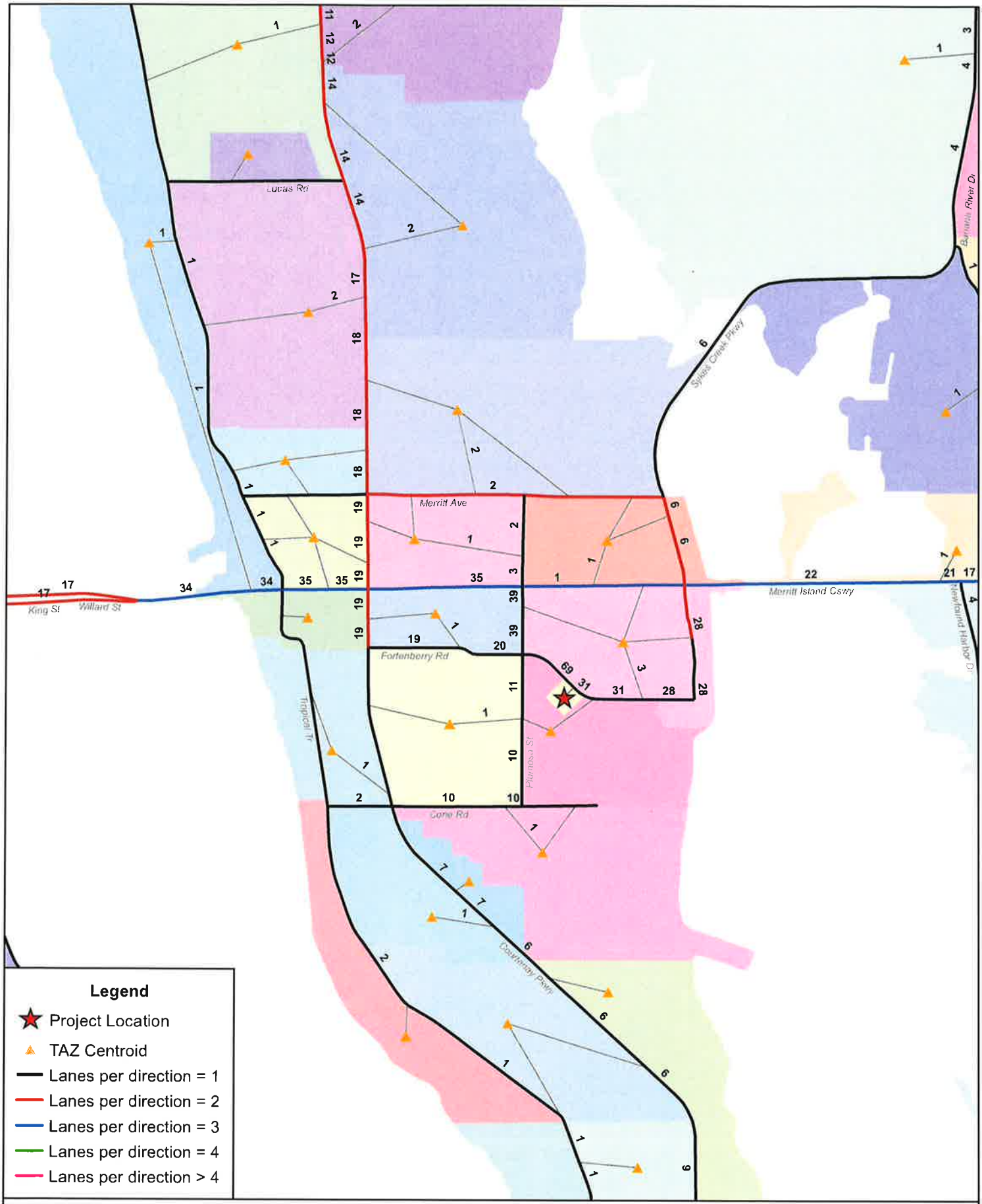
Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.39	0.19 - 0.57	0.08

Data Plot and Equation



APPENDIX I
CFRPM Model Plot



Trip Distribution - Merritt Island Apartments
CFRPMv7 - 2025 - September 2022

APPENDIX J
NCHRP Warrant Worksheets

Intersection #6
AM Peak Hour

Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

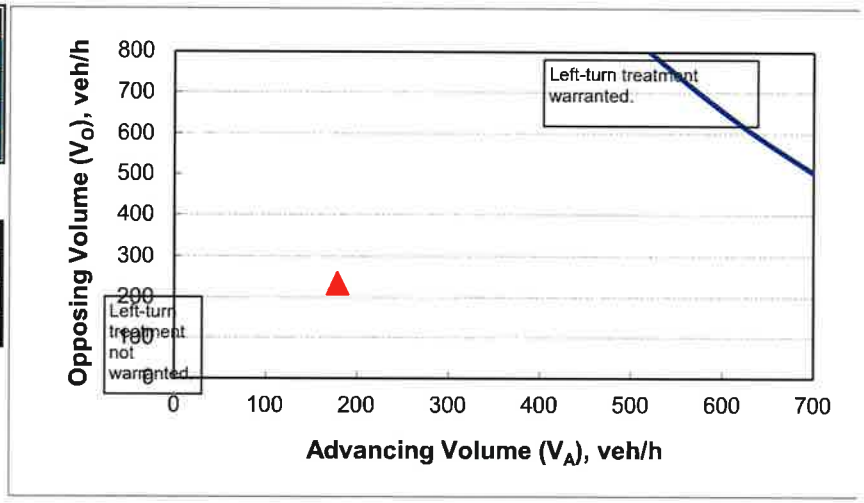
2-lane roadway (English)

INPUT

Variable	Value
85th percentile speed, mph:	35
Percent of left-turns in advancing volume (V_A), %:	2%
Advancing volume (V_A), veh/h:	179
Opposing volume (V_O), veh/h:	234

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	935
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Intersection #6
PM Peak Hour

Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

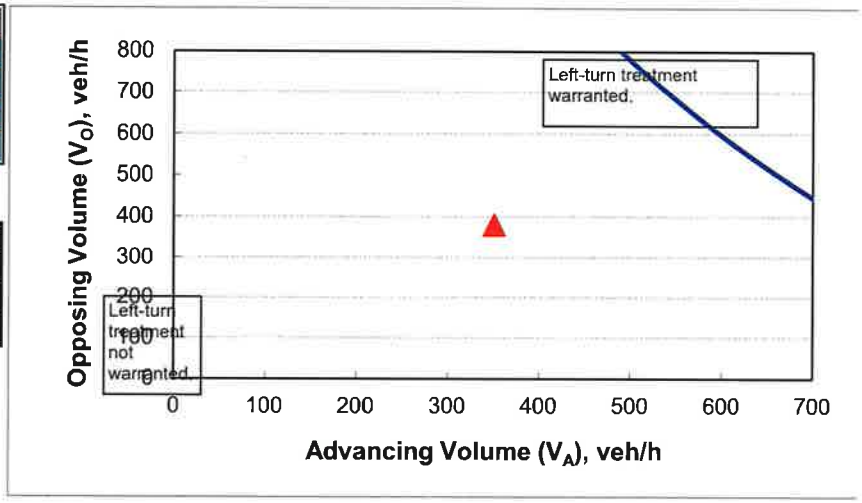
2-lane roadway (English)

INPUT

Variable	Value
85th percentile speed, mph:	35
Percent of left-turns in advancing volume (V_A), %:	3%
Advancing volume (V_A), veh/h:	351
Opposing volume (V_O), veh/h:	380

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	751
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Intersection #6
AM Peak Hour

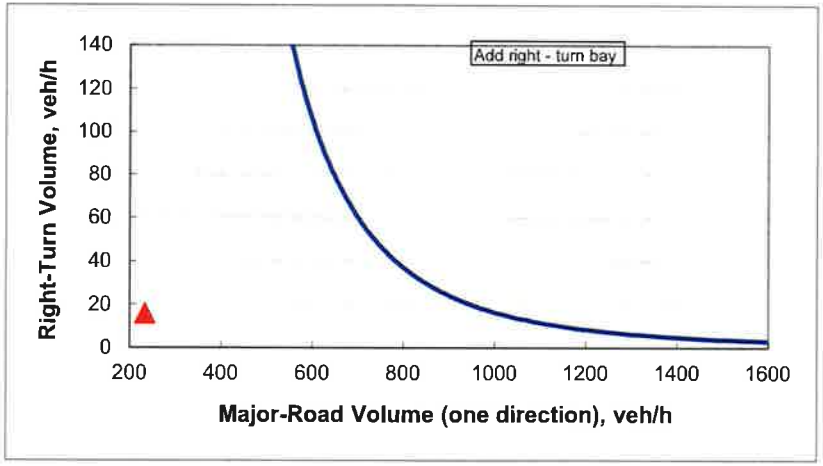
Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

INPUT

Roadway geometry:	2-lane roadway
Variable	Value
Major-road speed, mph:	35
Major-road volume (one direction), veh/h:	234
Right-turn volume, veh/h:	16

OUTPUT

Variable	Value
Limiting right-turn volume, veh/h:	3250
Guidance for determining the need for a major-road right-turn bay for a 2-lane roadway:	
Do NOT add right-turn bay.	



Intersection #6
PM Peak Hour

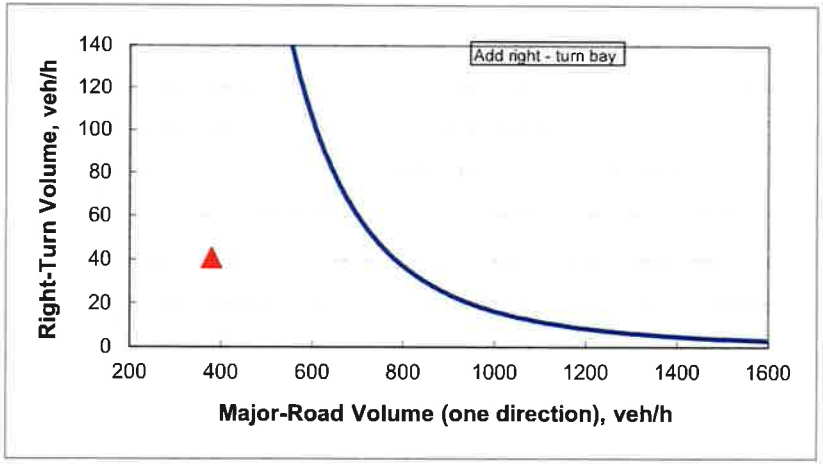
Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

INPUT

Roadway geometry:	2-lane roadway
Variable	Value
Major-road speed, mph:	35
Major-road volume (one direction), veh/h:	380
Right-turn volume, veh/h:	41

OUTPUT

Variable	Value
Limiting right-turn volume, veh/h:	557
Guidance for determining the need for a major-road right-turn bay for a 2-lane roadway:	
Do NOT add right-turn bay.	



Intersection #7
AM Peak Hour

Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

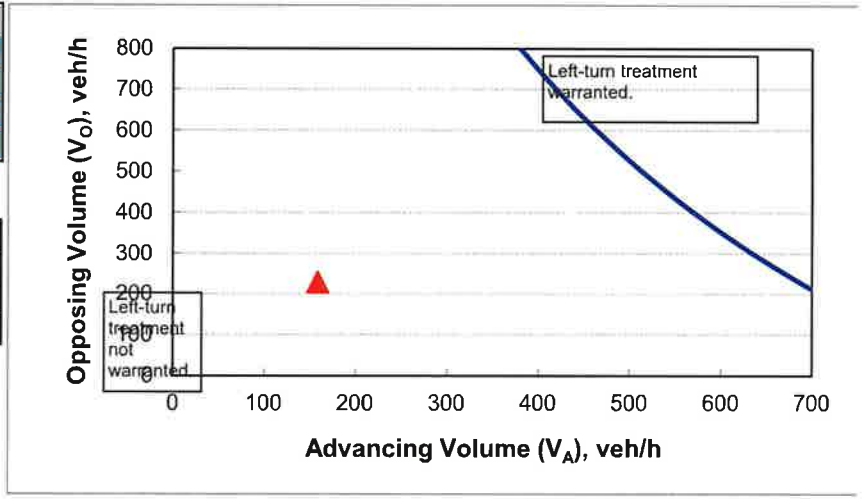
2-lane roadway (English)

INPUT

Variable	Value
85th percentile speed, mph:	35
Percent of left-turns in advancing volume (V_A), %:	4%
Advancing volume (V_A), veh/h:	159
Opposing volume (V_O), veh/h:	229

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	687
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Intersection #7
PM Peak Hour

Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

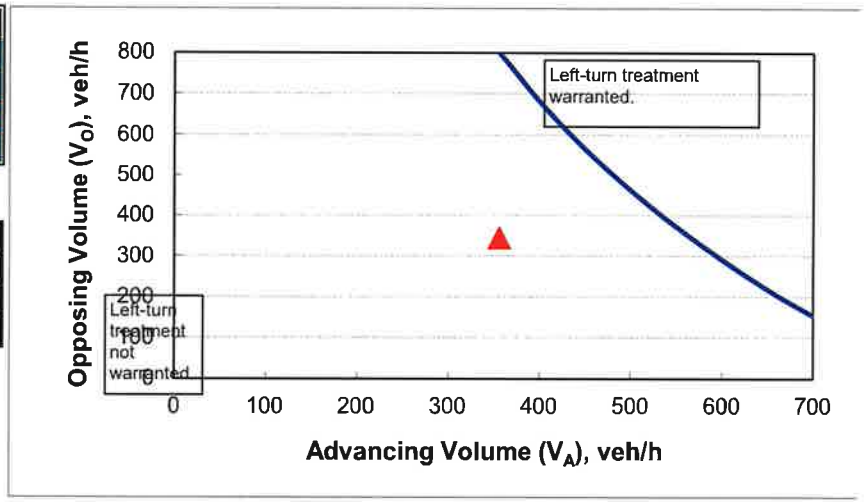
2-lane roadway (English)

INPUT

Variable	Value
85th percentile speed, mph:	35
Percent of left-turns in advancing volume (V_A), %:	5%
Advancing volume (V_A), veh/h:	356
Opposing volume (V_O), veh/h:	345

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	566
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Intersection #7
AM Peak Hour

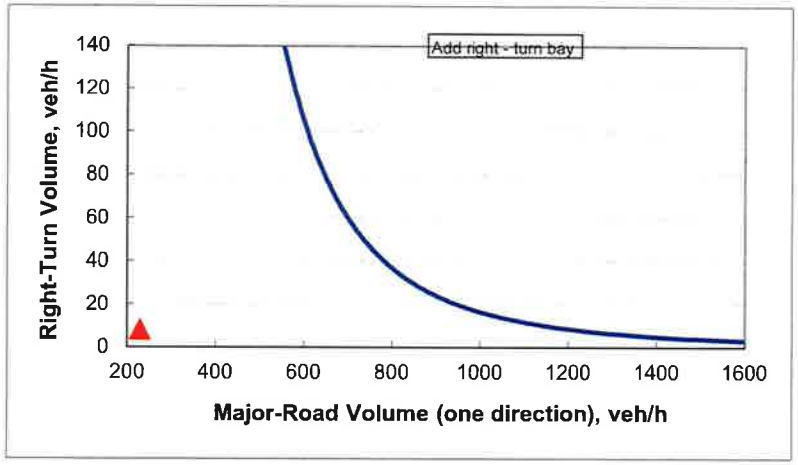
Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

INPUT

Roadway geometry:	2-lane roadway
Variable	Value
Major-road speed, mph:	35
Major-road volume (one direction), veh/h:	229
Right-turn volume, veh/h:	8

OUTPUT

Variable	Value
Limiting right-turn volume, veh/h:	3516
Guidance for determining the need for a major-road right-turn bay for a 2-lane roadway:	
Do NOT add right-turn bay.	



Intersection #7
PM Peak Hour

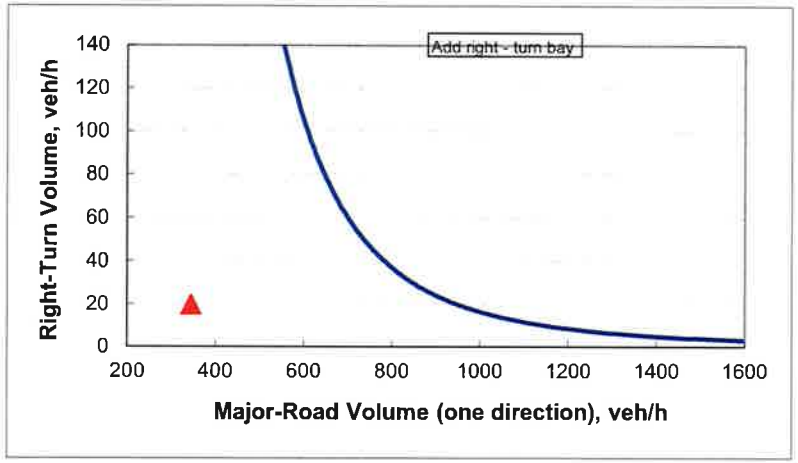
Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

INPUT

Roadway geometry:	2-lane roadway
Variable	Value
Major-road speed, mph:	35
Major-road volume (one direction), veh/h:	345
Right-turn volume, veh/h:	20

OUTPUT

Variable	Value
Limiting right-turn volume, veh/h:	792
Guidance for determining the need for a major-road right-turn bay for a 2-lane roadway:	
Do NOT add right-turn bay.	



MERRITT ISLAND
REDEVELOPMENT AGENCY

MERRITT ISLAND REDEVELOPMENT AGENCY

INTER-OFFICE MEMORANDUM

DATE: January 3, 2023

TO: Jeffrey Ball, Planning & Zoning Manager
Tim Craven, Site Plan Coordinator - Land Development/Platting

FROM: Larry Lallo, Executive Director on behalf of the
Merritt Island Redevelopment Agency Board of Directors

RE: Applicant Name: Woodfield Acquisitions, LLC

December 8, 2022 Merritt Island Redevelopment Agency Board Review of Application Number 22Z00062 Woodfield Acquisitions, LLC

Pursuant to Section 62-2114 of Brevard County Code, "When an application is made to the P&Z Board for a change in zoning or approval of a conditional use permit, or to the Board of Adjustment for a variance, for property located in the MIRA area, the application shall be forwarded to the MIRA agency prior to the applicable public hearing before the P&Z board or the Board of Adjustment."

On December 8, 2022 at their regular meeting, the Merritt Island Redevelopment Agency Board of Directors reviewed the above referenced PUD Zoning Application and voted unanimously to recommend approval.

BOARD OF COUNTY COMMISSIONERS

Public Works Department
Traffic Operations Program
2725 Judge Fran Jamieson Way
Building A, Room 211

January 11, 2023

James M. Taylor, PE
Kimley-Horn, Inc.
189 S Orange Ave, Suite 1000
Orlando, FL 32801
Via Email: james.taylor@kimley-horn.com

Re: Merritt Island Apartments (aka Fortenberry Apartments) – Traffic Impact Analysis (TIA)

Dear Mr. Taylor:

Brevard County Traffic Engineering is in receipt of the Merritt Island Apartments TIA dated December 2022. In response to this submittal, County review comments are provided below:

Rodway Segment Analyses

1) Table 1 - Existing Roadway Segment Analysis (Daily): For S S Plumosa St from Fortenberry Rd to Cone Rd (ID #116), use 2018 AADT instead of 2020 counts and grow them to 2022. Comment applies to Table 6 – Background Roadway Segment Analysis (Daily) and to Table 11 – Background Roadway Segment Analysis (Daily).

2) Per Chapter 62-602.d.1.c of the Brevard County Land Development Regulations, the adopted Level of Service (LOS) for all Brevard County segments is E. Revise all roadway segment tables.

3) The project distribution on Fortenberry Rd from S Plumosa St to Sykes Creek Pkwy (#154) is 100%. Comment applies to Table 11 – Buildout Roadway Segment Analysis (Daily) and Table 12 – Buildout Roadway Segment Analysis (PM Peak Hour).

Intersection Analyses and Synchro

4) Include the signal timing sheets in the appendices.

5) SR 520 at Courtenay Pkwy:

   a) The adopted LOS for state roads is D. Based on this, the intersection does not meet the adopted LOS during any of the analysis periods and scenarios. Additionally, an analysis with improvements is needed under background conditions.

   b) AM analysis: The reference phase is 6, not 2 and 6. Comment applies to Existing, Background, and Buildout conditions.

   c) PM analysis: The reference phase is 2, not 2 and 6. Comment applies to Existing, Background, and Buildout conditions.

6) SR 520 at S Plumosa St:

   a) AM and PM analyses: The reference phase is 2, not 2 and 6. Comment applies to Existing, Background, and Buildout conditions.

   b) PM analysis: Revise the recall mode for phase 3 to "None". Comment applies to Existing, Background, and Buildout conditions.

7) SR 520 at Sykes Creek Pkwy:

   a) AM and PM analyses: The reference phase is 6, not 2 and 6. Comment applies to Existing, Background, and Buildout conditions.

8) Courtenay Pkwy at Fortenberry Rd:

   a) Code phase 3 as phase 8 and provide HCM 6th results. Comment applies to all analysis periods and scenarios.

   b) There is no westbound right overlap. See Table 1.5.2.1 of the signal timing sheet. Comment applies to all analysis periods and scenarios.

   c) AM and PM analyses: The reference phase is 2, not 2 and 6. Comment applies to Existing, Background, Background with Improvements, and Buildout conditions.

   d) AM analysis: Revise the minimum initial green for phase 3. Comment applies to Existing, Background, and Buildout conditions.

   e) PM analysis: Revise the offset. Comment applies to Existing, Background, Background with Improvements, and Buildout conditions.

9) S Plumosa St at Fortenberry Rd:

   a) For uncoordinated intersections the signal controller references the max I or max II timing depending on if the time-of-day schedule or base operations menu dictates. In Synchro, the 'Total Split' time = Max I (or II) + Yellow Change + Red Clearance. The Synchro user guide and NCHRP Report 812 provide more guidance and in-depth discussion. Comment applies to all analysis periods and scenarios.

   b) Swap phases 7 and 8 and provide HCM 6th results. Comment applies to all analysis periods and scenarios.

Should you have any questions, please contact me at 321-633-2077.

Regards,

Veronica M. Figueroa-Chanza

Veronica Figueroa-Chanza, PE
Transportation Engineer

Cc: Corrina Gumm, PE, Traffic Operations Manager
Devin Swanson, Engineer II
William Johnson, PE, Engineer III

Informational Meeting Notice
22Z00062
Project Zenith
Submitted by Applicant 01/09/23

LACEY LYONS REZANKA
ATTORNEYS AT LAW

Stephen J. Lacey
Managing Member
Aaron D. Lyons
Managing Member
Kimberly B. Rezanka
Partner
Robyn W. Hattaway
Partner
Jennifer D. Cockcroft
Senior Associate Attorney
Ethan B. Babb
Associate Attorney
Amanda R. Wilhelm
Associate Attorney

December 21, 2022

Via First Class Mail

RE: Notice of Citizen Informational Meeting on January 4, 2023

Applicant:	Woodfield Acquisitions, LLC ("Woodfield")
Project:	New Luxury Multi-Family Community
Location:	East of Plumosa St., South of Fortenberry Rd., and East of Harbour Woods Blvd.
Application Request:	Rezoning
Tax Parcel ID's:	2428002, 2428163, 2428161, and 2428157.

Dear Neighbor:

Woodfield has submitted a Rezoning Application to Brevard County, requesting a Rezoning of existing zoning classifications BU-1 and BU-2 to PUD. The project consists of 370 multifamily units with associated clubhouse, amenities and parking on approximately 15.11 acres.

On behalf of Woodfield, we are inviting you to an informational meeting to discuss the request, answer any questions you may have, and accept feedback you may offer. We will present the results of the meeting to the County Planning and Zoning Board and County Commission during the public hearings.

If you have any questions you wish to submit in advance of the meeting, we would appreciate the opportunity to review them ahead of time to be sure that we bring appropriate information to answer your questions or address your concerns at the meeting.

DATE:	January 4, 2023
TIME:	6:00 P.M.
PLACE:	Brevard County Government Center, MIRA Conference Room 2575 N. Courtenay Parkway, Second Floor Merritt Island, FL 32953

We hope to see you there. Questions or comments can be submitted to me via email at KRezanka@LLR.Law.

Best Regards,

Kim Rezanka

Kimberly B. Rezanka

1290 U.S. Highway 1 | Suite 103 | Rockledge, FL 32955
Office: 321.608.0892 | Fax: 321.608.0891

CFN 2009180295, OR BK 6033 Page 2921, Recorded 09/29/2009 at 11:33 AM, Scott Ellis, Clerk of Courts, Brevard County Doc. D: $14000.00

22Z00062
Project Zenith
Submitted by Applicant
01/09/23

8

This document has been prepared by and should be returned to:

Charles B. Costar III, Esq.
SHUTTS & BOWEN LLP
300 S. Orange Avenue, Suite 1000
Orlando, Florida 32801

Tax Account No's.: 2427985, 2427987, 2441773, 2428004 and 2428001

SPECIAL WARRANTY DEED

THIS SPECIAL WARRANTY DEED made this 28th day of September, 2009 by **PULTE HOME CORPORATION,** a Michigan corporation, whose address is 3810 Northdale Boulevard, Suite 100, Tampa, Florida 33624 (the "Grantor") to **BREVARD COUNTY, FLORIDA**, a political subdivision of the State of Florida, whose address is 2725 Judge Fran Jamieson Way, Viera, Florida 32940 (the "Grantee").

(Whenever used herein the terms "grantor" and "grantee" include all the parties to this instrument and the heirs, legal representatives and assigns of individuals, and the successors and assigns of corporations)

WITNESSETH: That the Grantor, for and in consideration of the sum of $10.00 and other valuable considerations, receipt whereof is hereby acknowledged, hereby grants, bargains, sells, aliens, remises, releases, conveys and confirms unto the grantee, all that certain land situate in Brevard County, Florida, and more particularly described in **Exhibit "A"** attached hereto (the "Property").

TOGETHER, with all of the Grantor's interest in and to all tenements, hereditaments and appurtenances belonging or in anywise appertaining to the Property.

TO HAVE AND TO HOLD, the same in fee simple forever.

AND the Grantor does hereby covenant that the Grantor is lawfully seized of the Property in fee simple; that the Grantor has good right and lawful authority to sell and convey the Property; the Grantor does hereby fully warrant the title to the Property and will defend the same against the lawful claims of all persons claiming by, through or under the Grantor; and that the Property is free and clear of all encumbrances except for real property taxes for the year 2010 and thereafter and those certain permitted exceptions appearing on **Exhibit "B"** attached hereto and by this reference made a part hereof.

IN WITNESS WHEREOF, the said Grantor has hereunto set their hand and seal the day and year first above written.

Signed, sealed and delivered in the presence of:

Print Name: MICHELE M. CHAMPION

Print Name: Charles B. Costar III

PULTE HOME CORPORATION, a Michigan corporation

By:
Print Name: Scott H. Campbell
Title: Division President

STATE OF FLORIDA

COUNTY OF ORANGE

The foregoing instrument was acknowledged before me this 23rd day of September, 2009 by Scott H. Campbell, as Division President, Pulte Home Corporation, a Michigan corporation, on behalf of the corporation. He ☐ is personally known to me or ☐ has produced FLORIDA DRIVERS LICENSE, as identification.

Print Name:
Notary Public, State of FLORIDA
Commission No.:
My commission expires:

NOTARY PUBLIC-STATE OF FLORIDA
Michele M. Champion
Commission # DD692479
Expires: AUG. 24, 2011
BONDED THRU ATLANTIC BONDING CO., INC.

EXHIBIT "A"

LEGAL DESCRIPTION

PARCEL "A" (TAX ACCOUNT NUMBERS 2427985, 2427987, 2441773 AND 2428004)

PARCEL ONE

PROPERTY DESCRIBED AS A PARCEL OF LAND LYING IN THE SOUTHWEST ¼ AND IN GOVERNMENT LOT 4, OF SECTION 36, TOWNSHIP 24 SOUTH, RANGE 36 EAST, BREVARD COUNTY, FLORIDA, BEING DESCRIBED AS FOLLOWS:

COMMENCE AT THE SOUTHWEST CORNER OF SECTION 36, TOWNSHIP 24 SOUTH, RANGE 36 EAST, BREVARD COUNTY, FLORIDA; THENCE N88°51'09"E, ALONG THE SOUTH LINE OF SAID SECTION 36, FOR A DISTANCE OF 850.01 FEET, TO THE POINT OF BEGINNING, BEING THE EAST LINE OF OFFICIAL RECORDS BOOK 573, PAGE 482 OF THE PUBLIC RECORDS OF BREVARD COUNTY, FLORIDA; THENCE N00°33'17"W, FOR A DISTANCE OF 97.24 FEET TO THE SOUTHERLY LINE OF OFFICIAL RECORDS BOOK 3462, PAGE 2026 OF THE PUBLIC RECORDS OF BREVARD COUNTY, FLORIDA; THENCE ALONG SAID SOUTHERLY LINE THE NEXT NINE (9) COURSES, N88°51'01"E, FOR A DISTANCE OF 50.99 FEET, TO A POINT OF CURVATURE OF A CURVE CONCAVE TO THE NORTHWEST, HAVING A RADIUS OF 25.00 FEET; THENCE NORTHEASTERLY ALONG THE ARC OF SAID CURVE, THROUGH A CENTRAL ANGLE OF 51°24'10", FOR AN ARC DISTANCE OF 22.43 FEET, TO A POINT OF TANGENCY; THENCE N37°25'44"E, FOR A DISTANCE OF 17.08 FEET TO A POINT OF CURVATURE OF A CURVE CONCAVE TO THE SOUTHEAST, HAVING A RADIUS OF 25.00 FEET; THENCE NORTHEASTERLY ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 44°41'18", FOR AN ARC DISTANCE OF 19.50 FEET, TO A POINT OF TANGENCY; THENCE N82°06'13"E, FOR A DISTANCE OF 55.39 FEET, TO A POINT OF CURVATURE OF A CURVE CONCAVE TO THE NORTHWEST HAVING A RADIUS OF 25.00 FEET; THENCE NORTHEASTERLY ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 35°56'17", FOR AN ARC DISTANCE OF 15.68 FEET TO A POINT OF TANGENCY; THENCE N46°10'58"E, FOR A DISTANCE OF 119.45 FEET, TO A POINT OF CURVATURE OF A CURVE CONCAVE TO THE SOUTHEAST HAVING A RADIUS OF 10.00 FEET; THENCE NORTHEASTERLY ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 42°31'39", FOR AN ARC DISTANCE OF 7.42 FEET TO A POINT OF TANGENCY; THENCE N88°40'28"E, FOR A DISTANCE OF 171.93 FEET, TO THE EAST LINE OF SAID OFFICIAL RECORDS BOOK 3462, PAGE 2026; THENCE N00°34'07"W, ALONG THE SAID EAST LINE FOR A DISTANCE OF 361.38 FEET; THENCE CONTINUE ALONG SAID EAST LINE, N06°11'58"E, FOR A DISTANCE OF 233.52 FEET, TO THE NORTHEAST CORNER OF SAID OFFICIAL RECORDS BOOK 3462, PAGE 2026, SAID POINT ALSO BEING THE SOUTHEASTERLY CORNER OF OFFICIAL RECORDS BOOK 3441, PAGE 4873 OF THE PUBLIC RECORDS OF BREVARD COUNTY, FLORIDA, SAID POINT BEING 10.38 FEET WEST OF AS MEASURED AT RIGHT ANGLES TO THE EAST LINE OF THE SAID SOUTHWEST ¼

OF SECTION 36; THENCE N00°34'01"W, ALONG THE SAID EAST LINE OF OFFICIAL RECORDS BOOK 3441, PAGE 4873 AND 10.38 FEET WEST OF AND PARALLEL WITH THE SAID EAST LINE OF THE SOUTHWEST ¼, FOR A DISTANCE OF 438.11 FEET, TO THE SOUTH LINE OF THE NORTH 62.00 FEET, OF THE SAID SOUTHWEST ¼, THENCE N89°10'22"E, ALONG THE SAID SOUTH LINE OF THE NORTH 62.00 FEET FOR A DISTANCE OF 10.38 FEET, TO THE EAST LINE OF THE SAID SOUTHWEST ¼ OF THE SECTION 36; THENCE N00°34'01"W, ALONG THE SAID EAST LINE FOR A DISTANCE OF 62.00 FEET, TO THE NORTHEAST CORNER OF THE SAID SOUTHWEST ¼ (ALSO THE NORTHWEST CORNER OF GOVERNMENT LOT 4 OF SAID SECTION 36); THENCE N89°10'22"E ALONG THE NORTH LINE OF SAID GOVERNMENT LOT 4, ALSO BEING THE SOUTH LINE OF A 50 FOOT DRAINAGE EASEMENT AS RECORDED IN OFFICIAL RECORDS BOOK 1812, PAGE 589 OF THE PUBLIC RECORDS OF BREVARD COUNTY, FLORIDA, FOR A DISTANCE OF 1558 FEET, MORE OR LESS, TO THE WATERS OF NEW FOUND HARBOR, THENCE ALONG THE WATERS OF NEW FOUND HARBOR SOUTHEASTERLY, FOR A DISTANCE OF 1267.3 FEET, MORE OR LESS, TO THE SOUTH LINE OF SAID GOVERNMENT LOT 4; THENCE S88°50'20"W, ALONG THE SAID SOUTH LINE, FOR A DISTANCE OF 1999.1 FEET, MORE OR LESS TO THE POINT OF BEGINNING. SUBJECT TO ANY AND ALL DEED RESTRICTIONS, EASEMENTS AND RIGHTS OF WAY OF RECORD. LESS AND EXCEPT THOSE LANDS LYING UNDER THE WATER OF NEW FOUND HARBOR. LOCATED APPROXIMATELY, 450 FEET SOUTH OF FORTENBERRY ROAD AND SYKES CREEK PKWY. INTERSECTION.

PARCEL TWO

A PORTION OF SECTION 36, TOWNSHIP 24 SOUTH, RANGE 36 EAST, BREVARD COUNTY, FLORIDA; BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE NORTHWEST CORNER OF THE SW 1/4 OF THE SW 1/4 OF SAID SECTION 36; THENCE N. 89°09'48" E., ALONG THE NORTH LINE OF THE SW 1/4 OF THE SW 1/4 OF SAID SECTION 36, FOR A DISTANCE OF 450.00 FEET, TO A POINT ON THE EAST LINE OF THE WEST 450.00 FEET OF SAID SECTION 36; THENCE S. 00°33'33" E., ALONG THE SAID EAST LINE, FOR A DISTANCE OF 14.00 FEET TO A POINT ON THE SOUTH LINE OF THE NORTH 14.00 FEET OF THE SW 1/4 OF THE SW 1/4 OF SAID SECTION 36; THENCE N. 89°09'48" E., ALONG SAID SOUTH LINE FOR A DISTANCE OF 695.71 FEET; THENCE N. 67°12'06" E, FOR A DISTANCE OF 51.81 FEET TO A POINT ON THE WEST LINE OF THE EAST 126.00 FEET OF THE SW 1/4 OF SAID SECTION 36 AND THE POINT OF BEGINNING; THENCE N. 00°34'07" W., ALONG SAID WEST LINE FOR A DISTANCE OF 456.55 FEET TO A POINT ON AN ARC OF A CURVE CONCAVE TO THE NORTH, HAVING A RADIUS OF 602.96 FEET, SAID POINT BEARS S. 11°31'33" W., FROM THE CENTER OF SAID CURVE, ALSO BEING ON THE SOUTH RIGHT-OF-WAY LINE OF FORTENBERRY ROAD, A 60 FOOT RIGHT-OF-WAY AS DESCRIBED IN OFFICIAL RECORDS BOOK 1103, PAGE 0172, OF THE PUBLIC RECORDS OF BREVARD COUNTY, FLORIDA; THENCE EASTERLY ALONG SAID RIGHT-OF-WAY LINE AND

THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 12°00'06" FOR A DISTANCE OF 126.30 FEET TO A POINT OF TANGENCY; THENCE N. 89°31'17" E., ALONG SAID SOUTH RIGHT-OF-WAY LINE FOR A DISTANCE OF 0.64 FEET TO A POINT ON THE EAST LINE OF THE SW 1/4 OF SAID SECTION 36; THENCE S. 00°34'07" E., ALONG SAID EAST LINE FOR A DISTANCE OF 510.07 FEET TO A POINT ON THE SOUTH LINE OF THE NORTH 62.00 FEET OF THE SW 1/4 OF THE SW 1/4 OF SAID SECTION 36; THENCE S. 89°09'48" W., ALONG SAID SOUTH LINE FOR A DISTANCE OF 126.00 FEET TO A POINT ON THE SAID WEST LINE OF THE EAST 126.00 FEET OF THE SW 1/4 OF SECTION 36; THENCE N. 00°34'07" W., ALONG THE SAID WEST LINE, FOR A DISTANCE OF 67.62 FEET, TO THE POINT OF BEGINNING.

AND

THE NORTHWEST 1/4 OF THE SOUTHWEST 1/4 AS DESCRIBED IN OFFICIAL RECORDS BOOK 1450, PAGE 218, LESS AND EXCEPT LANDS AS DESCRIBED IN OFFICIAL RECORDS BOOK 2263, PAGE 1742 AND IN OFFICIAL RECORDS BOOK 3056, PAGE 2495, ALL OF THE PUBLIC RECORDS OF BREVARD COUNTY, FLORIDA.

PARCEL "B" (TAX ACCOUNT NUMBER 2428001)

A PARCEL OF LAND LYING WITHIN SECTION 36, TOWNSHIP 24 SOUTH, RANGE 36 EAST, BREVARD COUNTY, FLORIDA, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE SOUTHWEST CORNER OF SECTION 36, TOWNSHIP 24 SOUTH, RANGE 36 EAST; THENCE N88°50'36"E, ALONG THE SOUTH LINE OF SAID SECTION 36, FOR A DISTANCE OF 850.01 FEET TO THE EAST LINE OF THOSE LANDS DESCRIBED IN OFFICIAL RECORDS BOOK 573, PAGE 482 OF THE PUBLIC RECORDS OF BREVARD COUNTY, FLORIDA; THENCE CONTINUE N88°50'20"E, 469.95 FEET TO THE INTERSECTION WITH THE EAST LINE OF SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SAID SECTION 36; THENCE N00°34'07"W ALONG SAID EAST LINE A DISTANCE OF 1767.35 FEET TO THE SOUTH RIGHT OF WAY LINE OF FORTENBERRY ROAD (A 60 FOOT RIGHT OF WAY) AS RECORDED IN OFFICIAL RECORDS BOOK 1103, PAGE 0172 OF SAID PUBLIC RECORDS; THENCE N89°31'17"E ALONG SAID SOUTH RIGHT OF WAY LINE A DISTANCE OF 550.36 FEET TO THE POINT OF BEGINNING; THENCE CONTINUE N89°31'17"E ALONG SAID RIGHT OF WAY LINE A DISTANCE OF 413.53 FEET; THENCE S22°07'04"W DEPARTING SAID RIGHT OF WAY LINE A DISTANCE OF 145.99 FEET; THENCE S00°28'43"E, 48.97 FEET; THENCE S29°24'04"E, 294.68 FEET; THENCE S89°10'22"W, 367.98 FEET; THENCE N00°06'37"W, 349.00 FEET; THENCE N55°12'28"W, 164.40 FEET TO THE POINT OF BEGINNING.

EXHIBIT "B"

PERMITTED EXCEPTIONS

1. Easement for drainage ditch and drainage facilities created by Warranty Deed from Brevard, Inc., a Florida corporation to Shelbourne, Inc., a Florida corporation recorded June 10, 1974 in Book 1450, Page 218, Public Records of Brevard County, Florida.

2. Drainage Easement granted to Brevard County by Alpert Investment Corporation and Devco Shopping Centers, Inc., dated March 31, 1975 and recorded November 16, 1977 in Book 1812, Page 589, Public Records of Brevard County, Florida.

3. Easement for ingress and egress, from Byron A. Beville, Charles F. Hodges, Thomas E. Wasdin and Richard H. Stottler, Jr., as Trustees, in favor of Harbor Woods Section One Condominium Association, Inc., a Florida corporation, and recorded October 15, 1980 in Book 2259, Page 2598, Public Records of Brevard County, Florida.

4. Easement for sanitary sewer, from Harbor Woods of Brevard, Inc., a Florida corporation in favor of Brevard County Board of County Commissioners recorded October 27, 1980 in Book 2262, Page 1594, Public Records of Brevard County, Florida.

5. Easement granted to Southern Bell Telephone and Telegraph Company by instrument recorded in Book 2296, Page 787, Public Records of Brevard County, Florida.

6. Easement granted to Harbor Woods Services Association by Harbor Woods of Brevard, Inc., a Florida corporation, and Byron A. Beville, Charles F. Hodges, Thomas E. Wasdin and Richard H. Stottler, Jr., as Trustees, dated May 21, 1981 and recorded May 27, 1981 in Book 2302, Page 908 as affected by Release of Property from Restrictions recorded in Book 3056, Page 2491; Partial Release of Easement recorded in Book 3441, Page 4865 and Partial Release of Easement recorded in Book 3462, Page 2031, Public Records of Brevard County, Florida.

7. Easement granted to Florida Power & Light Company by instrument recorded June 4, 1981 in Book 2304, Page 896, Public Records of Brevard County, Florida.

8. Terms and conditions of the Binding Development Plan between the Board of County Commissioners, Brevard County, a political subdivision of the State of Florida and Richard H. Stottler, Jr., Thomas E. Wasdin, as Trustees of the Byron A. Beville Trust recorded in Book 3050, Page 302, Public Records of Brevard County, Florida.

9. Easement for utilities and drainage created by Warranty Deed from Richard H. Stottler, Jr., Thomas E. Wasdin and Arthur Ray Beville, individually and as Co-Trustees to Richard S. Amari, as Trustee recorded April 17, 1990 in Book 3056, Page 2495, as assigned to Board of County Commissioners, Brevard County, a political subdivision of

the State of Florida by Assignment of Easement recorded December 14, 1994 in Book 3441, Page 4888, Public Records of Brevard County, Florida.

10. Easement granted to Richard S. Amari, as Trustee by Harbor Woods of Brevard, Inc., Richard H. Stottler, Jr., Thomas E. Wasdin and Arthur Ray Beville, dated April 20, 1990 and recorded June 16, 1990 in Book 3072, Page 775, Public Records of Brevard County, Florida.

11. Drainage Easement granted to Brevard County by Alpert Investment Corporation, dated March 14, 1992 and recorded April 8, 1992 in Book 3192, Page 3707, Public Records of Brevard County, Florida.

12. Easement granted to Brevard County by Beville Trust by Richard H. Stottler, Jr., Thomas E. Wasdin and Bruce A. Beville, as Trustees, dated August 25, 1994 and recorded December 14, 1994 in Book 3441, Page 4877, Public Records of Brevard County, Florida.

13. Easement granted to Brevard County by Beville Trust by Richard H. Stottler, Jr., Thomas E. Wasdin and Bruce A. Beville, as Trustees, dated March 15, 1995 and recorded March 15, 1995 in Book 3462, Page 2037, Public Records of Brevard County, Florida.

14. Conservation Easement granted to the St. Johns River Water Management District by the Beville Trust, dated January 20, 1998 and recorded April 15, 1998 in Book 3828, Page 725, Public Records of Brevard County, Florida.

15. Easement granted to Board of County Commissioners, Brevard County, a political subdivision of the State of Florida by Beville Trust by Richard H. Stottler, Jr., Thomas E. Wasdin and Bruce A. Beville, as Trustees, dated January 20, 1998 and recorded April 15, 1998 in Book 3828, Page 732, as affected by Resolution No. 2006-159, vacating a portion of easement recorded June 14, 2006 in Book 5659, Page 5368, Public Records of Brevard County, Florida

16. Conservation Easement granted to the St. Johns River Water Management District by Land Trust, dated July 24, 1979, and as amended June 23, 1983, executed by Thomas E. Wasdin, Trustee, dated August 4, 2000 and recorded August 4, 2000, re-recorded December 20, 2000 in Book 4200, Page 894, re-recorded December 20, 2000 in Book 4264, Page 2943, as amended by Amendment to Grant of Conservation Easement by Pulte Home Corporation, a Michigan corporation in favor of the St. Johns River Water Management District recorded September 29, 2006 in Book 5702, Page 8116, Public Records of Brevard County, Florida

17. Conservation easement granted to the St. Johns River Water Management District by Pulte Home Corporation, a Michigan corporation, dated September 28, 2006 and recorded September 29, 2006 in Book 5702, Page 8180, Public Records of Brevard County, Florida

18. Conservation easement granted to the St. Johns River Water Management District by Pulte Home Corporation, a Michigan corporation, dated September 28, 2006 and recorded September 29, 2006 in Book 5702, Page 8205, Public Records of Brevard County, Florida.

OWNERS (NOTE: FOLLOWING WILL BE OWNERS AT TIME OF FORMAL FILING)

NDA MERRITT PROJECT ZENITH, LLC
2 S. UNIVERSITY DRIVE, SUITE 321
PLANTATION, FL 33324

SES MERRITT PROJECT ZENITH, LLC
2 S. UNIVERSITY DRIVE, SUITE 321
PLANTATION, FL 33324

PARCEL TAX NUMBERS
PARCEL 1: 24-36-36-00-518
PARCEL 2: 24-36-36-00-549
PARCEL 3: 24-36-36-00-547
PARCEL 4: 24-36-36-00-543

EXISTING ZONING - BU-1 AND BU-2
PROPOSED ZONING - PLANNED UNIT DEVELOPMENT (PUD)
OVERALL ACREAGE = 15.1 AC
DWELLING UNITS = 370 DU
COMMON OPEN SPACE = 4.45 AC

DEVELOPMENT REQUIREMENTS:

	REQ./ALLOWED	PROVIDED
MIN. LOT SIZE	10,000 SF	657,820 SF
FRONT SETBACK (NORTH)	25 FT	25 FT
REAR SETBACK (SOUTH)	99 FT	85'-0" FT
SIDE SETBACK (NORTHWEST)	25 FT	45'-8" FT
OPEN SPACE TOTALS		
Common open space (includes active recreational open space)	5.5 ac (36.25%)	4.45 ac
Active recreation open space: 0.5 ac x 100 dus =	1.85 ac	1.19 ac
OPEN SPACE BREAKDOWN		
Wetland Area #1 (Common) =		2.01 ac
Wetland Area #2 (Common) =		1.25 ac
Amenity Area (Active) =		0.12 ac
Park (Active) =		0.15 ac
Green Area #1 =		0.24 ac
Green Area #2 =		0.21 ac
Green Area #3 =		0.47 ac
BUILDING SEPARATION	20-30 FT	30'-0" FT
MIN. FLOOR AREA 1 BR	500 SF	741 SF
2 BR	750 SF	907 SF
3 BR	950 SF	1,290 SF
BUILDING HEIGHT	35'-0"	60FT

WAIVER TABLE

REQUEST TYPE	REQUEST	CODE SECTION	REQUIRED	PROVIDED
Waiver #1	A waiver for a 3.5 ac reduction on the open space requirement	Municode Brevard County, Chapter 62, Article VI, Division 4, Subdivision V, Sec. 62-1446(c)	5.50 ac	4.45 ac
Waiver #2	A waiver to allow 1 more access point from Harbor Woods Boulevard and 1 secondary access point from Fortenberry Road	Municode Brevard County, Chapter 62, Article VII, Division 4, Sec. 62-2555(11)	2	3

SITE AREA TABULATIONS

Type	Area (SF.)	Area (AC.)	Percent Overall
Buildings Type II Footprint (3 bldg)	47,823 sf	1.097 ac	7.3%
Buildings Type I Footprint (2 bldg)	35,220 sf	.800 ac	5.3%
Clubhouse Footprint	5,100 sf	.117 ac	0.8%
Trash Compactor Footprint	609 sf	.013 ac	0.1%
Asphalt Pavement	228,141 sf	5.240 ac	34.6%
Open space	193,842 sf	4.450 ac	29.5%
landscape islands+is around bldg	147,468 sf	3.39 ac	22.3%
Overall Site	658,643 sf	15.3 ac	100.0%

FLOOR AREA TABULATIONS

Description	GFA (SF)	GFA (AC)
Buildings Type II	239,115 sf	5.49 ac
Buildings Type I	176,100 sf	4.04 ac
Clubhouse	5,100 sf	.117 ac
Trash Compactor Footprint	609 sf	.013 ac
TOTAL	424,324 sf	9.65 ac

DEVELOPMENT SUMMARY - UNIT MIX

Unit Types	Gross Area	Multifamily Building Types Type II(3st)	Type III(3 st)	Total Units	% of Totals	Target mix	LEASABLE AREA (NRSF)
1BD							
A1	744 sf	20	30	120 units	32%		89,280 sf
A2	741 sf	10	10	50 units	14%	43%	37,050 sf
Sub-total		30	40	170 units	46%		126,330 sf
2BD							
B1	900 sf	5	0	15 units	4%		13,500 sf
B2	1,074 sf	20	30	120 units	32%	42%	128,760 sf
B3	1,185 sf	5	0	15 units	4%		17,775 sf
Sub-total		30	30	150 units	41%		160,035 sf
3BD							
D1	1,333 sf	10	10	50 units	14%	15%	66,650 sf
Sub-total		10	10	50 units	14%		66,650 sf
# of Units/Bldg		70 units	80 units	370 units			
# of Bldgs		3 bldgs	2 bldgs	5 bldgs			
Total Apart. Units		210 units	160 units	370 units	100%	100%	353,015 sf
						Gross Average Unit Area	954 sf

OFF-STREET PARKING

	Multifamily	# of units or SF	# Spaces
Required	All Units @ 1.75 sp/du	370 units	648 sp
	Clubhouse @ 1 sp per 200 SF	8,500 sf	43 sp
	Total Required		691 sp
Provided	Surface (Standard)		641 sp
	Clubhouse		10 sp
	Surface (ADA)		13 sp
	Total Provided		664 sp

Note: Min provided ADA spaces meet ADA Standards for Accessible Design 4.1.2 (5)

1.79 sp/unit

NOTE: SUBJECT TO ALTERNATIVE PARKING STUDY

GENERAL STATEMENT

THIS PRELIMINARY DEVELOPMENT PLAN IS SUBMITTED FOR APPROVAL OF A 370 UNIT APARTMENT COMPLEX CONTAINING 15 +/- ACRES AND CONSIST OF FIVE STORY BUILDINGS, PARKING AREAS AND A RECREATIONAL COMPLEX FOR THE RESIDENTS.

THE DEVELOPMENT PROVIDES A TOTAL OPEN SPACE OF 4.45 AC. THAT INCLUDES COMMON OPEN SPACE AND RECREATIONAL OPEN SPACE.

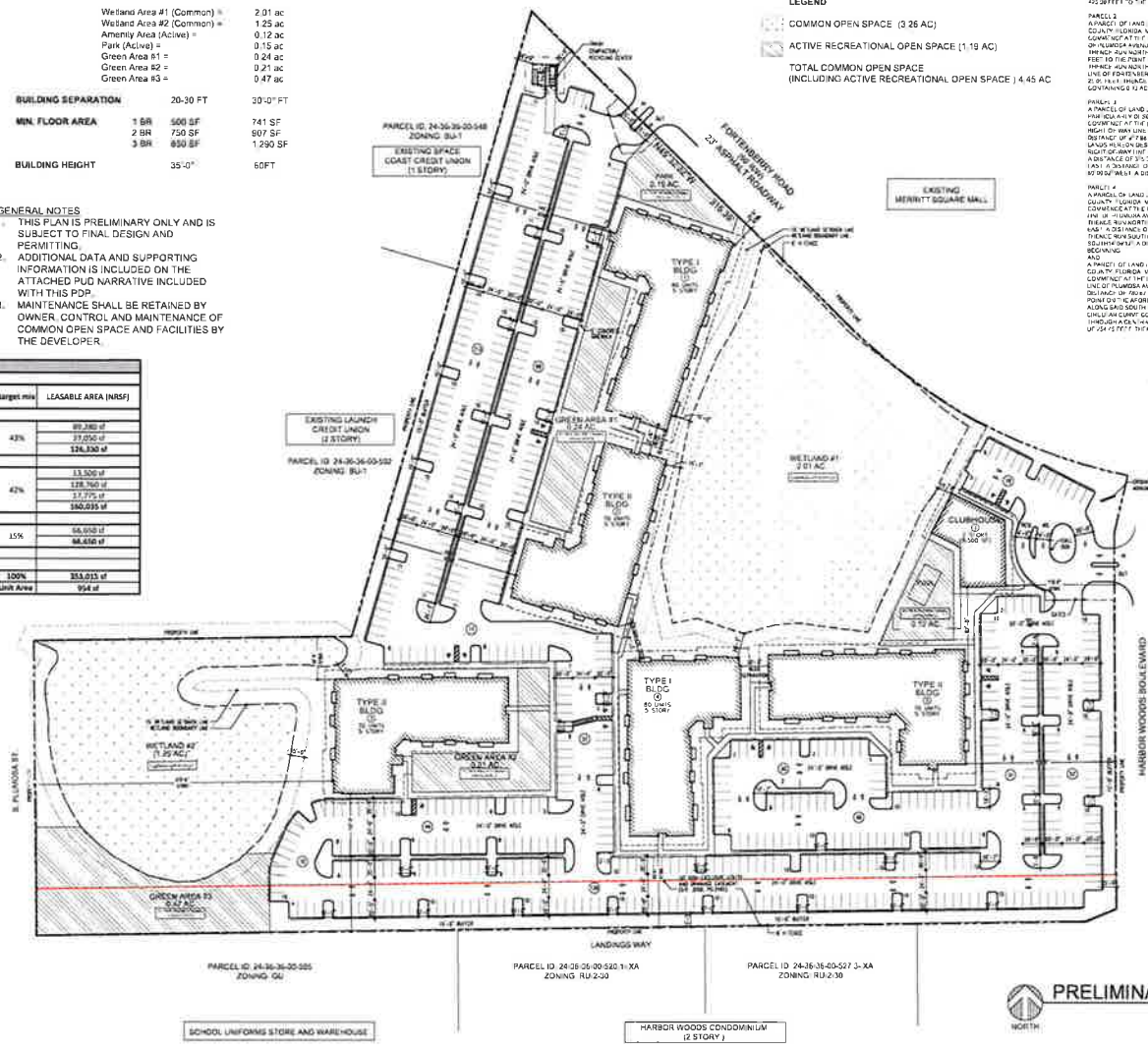
THE WETLAND PRESERVES WILL BE MAINTAINED AND ARE THE CENTER OF THE AESTHETICS OF THE PROJECT. THE PROPERTY IS PART OF THE FORTENBERRY REGIONAL STORMWATER MANAGEMENT SYSTEM AND IS TRIBUTARY TO ALUM POND SOUTH OF THE PROPERTY.

WATER AND SANITARY SEWER SERVICE IS AVAILABLE ON-SITE AND IS MAINTAINED BY THE CITY OF COCOA AND BREVARD COUNTY.

ACCESS TO THE SITE WILL BE DIRECTED TO HARBOR WOODS BOULEVARD ALONG THE EAST SIDE OF THE PROPERTY.

GENERAL NOTES

1. THIS PLAN IS PRELIMINARY ONLY AND IS SUBJECT TO FINAL DESIGN AND PERMITTING.
2. ADDITIONAL DATA AND SUPPORTING INFORMATION IS INCLUDED ON THE ATTACHED PUD NARRATIVE INCLUDED WITH THIS PDP.
3. MAINTENANCE SHALL BE RETAINED BY OWNER, CONTROL AND MAINTENANCE OF COMMON OPEN SPACE AND FACILITIES BY THE DEVELOPER.

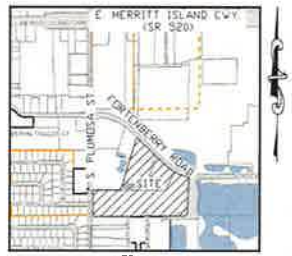


LEGEND

COMMON OPEN SPACE (3.26 AC)

ACTIVE RECREATIONAL OPEN SPACE (1.19 AC)

TOTAL COMMON OPEN SPACE
(INCLUDING ACTIVE RECREATIONAL OPEN SPACE) 4.45 AC



SITE MAP
NTS

LEGAL DESCRIPTION:

PARCEL 1:
A PORTION OF SECTION 36, TOWNSHIP 24 SOUTH, RANGE 36 EAST, BREVARD COUNTY, FLORIDA, BEING A PORTION OF THE LANDS DESCRIBED IN OFFICIAL RECORDS BOOK 1458, PAGE 218, OFFICIAL RECORDS BOOK 2324, PAGE 861, OFFICIAL RECORDS BOOK 8781, PAGE 832, AND ORIGINAL RECORDS BOOK 2203, PAGE 398 AND 814, ALL OF THE PUBLIC RECORDS OF BREVARD COUNTY, FLORIDA, AS FOLLOWS:

COMMENCE AT THE SOUTHWEST CORNER OF SAID SECTION 36, TOWNSHIP 24 SOUTH, RANGE 36 EAST; THENCE RUN NORTH 89°22'37" WEST ALONG THE WEST LINE OF SAID SECTION 36 FOR A DISTANCE OF 1,747.75 FEET TO A POINT ON THE SOUTH LINE OF THE NORTH 40 RODS OF THE SOUTHWEST 1/4 OF THE SOUTHWEST 1/4 OF SAID SECTION 36 AND THE SOUTH 40 RODS OF THE SOUTHEAST 1/4 OF THE SOUTHEAST 1/4 OF SAID SECTION 35; THENCE RUN NORTH 89°33'13" WEST ALONG SAID SOUTH LINE FOR A DISTANCE OF 25.00 FEET TO THE POINT OF BEGINNING; THENCE RUN NORTH 00°33'13" WEST A DISTANCE OF 25.00 FEET FROM AND PARALLEL TO THE WEST LINE OF SAID SECTION 36; FOR A DISTANCE OF 1,294.20 FEET TO THE NORTH LINE OF SAID 40 RODS, AS RECORDED IN DEED BOOK 150, PAGE 218, AND THE NORTH LINE OF THE SOUTH 330.00 FEET OF THE NORTHWEST 1/4 OF THE SOUTHWEST 1/4 OF SAID SECTION 36; THENCE RUN NORTH 89°39'49" EAST ALONG SAID NORTH LINES FOR A DISTANCE OF 885.49 FEET; THENCE RUN NORTH 61°16'56" EAST ALONG THE NORTHERLY RIGHT-OF-WAY OF FORTENBERRY AVENUE, A WIDTH VARYING, AS RECORDED IN OFFICIAL RECORDS BOOK 1458, PAGE 218, OF THE PUBLIC RECORDS OF BREVARD COUNTY, FLORIDA, FOR A DISTANCE OF 1,111.10 FEET TO THE POINT OF INTERSECTION WITH A NON-TANGENT CURVE CONCAVE TO THE SOUTHWEST, HAVING A RADIUS OF 1,393.69 FEET AND A CHORD BEARING OF SOUTH 61°16'56" EAST; THENCE RUN SOUTHEASTERLY ALONG AND AROUND THE ARC OF SAID CURVE, THROUGH A CENTRAL ANGLE OF 51°49'37", FOR A DISTANCE OF 1,261.00 FEET; THENCE RUN SOUTH 89°06'37" EAST, A DISTANCE OF 1,111.10 FEET TO THE NORTHWEST CORNER OF LOT 1, BLOCK 1, OF SAID OFFICIAL RECORDS BOOK 1458, PAGE 218, SAID POINT ALSO BEING ON A CURVE TO THE LEFT HAVING A RADIUS OF 1,393.69 FEET AND A RADIAL BEARING OF NORTH 42°15'34" EAST; THENCE RUN SOUTHEASTERLY ALONG AND AROUND THE ARC OF SAID CURVE FOR A DISTANCE OF 1,236.16 FEET, THROUGH A CENTRAL ANGLE OF 50°49'37"; THENCE RUN SOUTH 89°06'37" EAST, A DISTANCE OF 25.00 FEET TO A POINT ON THE SOUTH LINE OF THE EAST 1/4 OF THE SOUTHEAST 1/4 OF SAID SECTION 36; THENCE RUN SOUTH 89°06'37" EAST ALONG THE SOUTH LINE OF SAID NORTH 16.50 FEET OF THE SOUTHWEST 1/4 OF SECTION 36; THENCE RUN SOUTH 89°06'37" EAST ALONG SAID SOUTH LINE AND PARALLEL TO THE NORTH LINE OF THE SOUTHWEST 1/4 OF THE SOUTHWEST 1/4 OF SAID SECTION 31, FOR A DISTANCE OF 1,320.11 FEET TO THE NORTHEAST CORNER OF THE SOUTHWEST 1/4 OF THE SOUTHWEST 1/4 OF SAID SECTION 31; THENCE RUN SOUTH 00°33'13" EAST ALONG SAID SOUTH LINE FOR A DISTANCE OF 1,294.20 FEET TO THE POINT OF BEGINNING.

PARCEL 2:
A PARCEL OF LAND LYING IN SECTION 36, TOWNSHIP 24 SOUTH, RANGE 36 EAST, TALLAHASSEE BASE MERIDIAN, BREVARD COUNTY, FLORIDA, MORE FULLY DESCRIBED AS FOLLOWS:
COMMENCE AT THE INTERSECTION OF THE SOUTH RIGHT-OF-WAY LINE OF FORTENBERRY ROAD AND THE EAST RIGHT-OF-WAY LINE OF PLUMOSA AVENUE; THENCE RUN SOUTH 00°33'13" EAST ALONG SAID EASTERLY RIGHT-OF-WAY LINE, A DISTANCE OF 1,294.20 FEET; THENCE RUN NORTH 89°06'37" WEST, A DISTANCE OF 25.00 FEET TO THE POINT OF BEGINNING OF THE DESCRIPTION; THENCE RUN NORTH 00°33'13" WEST, A DISTANCE OF 22.60 FEET; THENCE RUN NORTH 15°34'27" EAST, A DISTANCE OF 201.87 FEET TO THE POINT ON THE ARC OF A NON-TANGENT CURVE CONCAVE TO THE SOUTHWEST, SAID POINT ALSO BEING ON THE SOUTHERLY RIGHT-OF-WAY LINE OF FORTENBERRY ROAD; THENCE RUN SOUTHEASTERLY ALONG AND AROUND THE ARC OF SAID CURVE AND SAID SOUTHERLY RIGHT-OF-WAY LINE, A DISTANCE OF 21.05 FEET; THENCE RUN SOUTH 15°34'27" WEST, A DISTANCE OF 200.60 FEET; THENCE RUN SOUTH 00°33'13" EAST, A DISTANCE OF 1,271.11 FEET; THENCE RUN SOUTH 89°26'47" WEST, A DISTANCE OF 10.00 FEET TO THE POINT OF BEGINNING.
AND
A PARCEL OF LAND LYING IN SECTION 36, TOWNSHIP 24 SOUTH, RANGE 36 EAST, TALLAHASSEE BASE MERIDIAN, BREVARD COUNTY, FLORIDA, MORE FULLY DESCRIBED AS FOLLOWS:
COMMENCE AT THE INTERSECTION OF THE SOUTH RIGHT-OF-WAY LINE OF FORTENBERRY ROAD AND THE EAST RIGHT-OF-WAY LINE OF PLUMOSA AVENUE; THENCE RUN SOUTH 00°33'13" EAST ALONG SAID EASTERLY RIGHT-OF-WAY LINE, A DISTANCE OF 1,317.80 FEET; THENCE RUN NORTH 89°26'47" EAST, A DISTANCE OF 10.00 FEET TO THE POINT OF BEGINNING; THENCE RUN NORTH 00°33'13" WEST, A DISTANCE OF 1,271.11 FEET; THENCE RUN NORTH 15°34'27" EAST, A DISTANCE OF 201.87 FEET TO THE POINT ON THE ARC OF A NON-TANGENT CURVE CONCAVE TO THE SOUTHWEST, SAID POINT ALSO BEING ON THE SOUTHERLY RIGHT-OF-WAY LINE OF FORTENBERRY ROAD; THENCE RUN SOUTHEASTERLY ALONG AND AROUND THE ARC OF SAID CURVE AND SAID SOUTHERLY RIGHT-OF-WAY LINE, A DISTANCE OF 21.05 FEET; THENCE RUN SOUTH 15°34'27" WEST, A DISTANCE OF 200.60 FEET; THENCE RUN SOUTH 00°33'13" EAST, A DISTANCE OF 1,271.11 FEET; THENCE RUN SOUTH 89°26'47" WEST, A DISTANCE OF 10.00 FEET TO THE POINT OF BEGINNING.

PARCEL 3:
A PARCEL OF LAND LYING IN SECTION 36, TOWNSHIP 24 SOUTH, RANGE 36 EAST, BREVARD COUNTY, FLORIDA, BEING MORE FULLY DESCRIBED AS FOLLOWS:
COMMENCE AT THE INTERSECTION OF THE SOUTH RIGHT-OF-WAY LINE OF FORTENBERRY ROAD AND THE EAST RIGHT-OF-WAY LINE OF PLUMOSA AVENUE; THENCE RUN SOUTH 00°33'13" EAST ALONG SAID EASTERLY RIGHT-OF-WAY LINE, A DISTANCE OF 1,317.80 FEET; THENCE RUN SOUTH 89°26'47" EAST, A DISTANCE OF 10.00 FEET TO THE POINT OF BEGINNING OF THE DESCRIPTION; THENCE RUN NORTH 15°34'27" EAST, A DISTANCE OF 201.87 FEET TO THE POINT ON THE ARC OF A NON-TANGENT CURVE CONCAVE TO THE SOUTHWEST, SAID POINT ALSO BEING ON THE SOUTHERLY RIGHT-OF-WAY LINE OF FORTENBERRY ROAD; THENCE RUN SOUTHEASTERLY ALONG AND AROUND THE ARC OF SAID CURVE AND SAID SOUTHERLY RIGHT-OF-WAY LINE, A DISTANCE OF 21.05 FEET; THENCE RUN SOUTH 15°34'27" WEST, A DISTANCE OF 200.60 FEET; THENCE RUN SOUTH 00°33'13" EAST, A DISTANCE OF 1,271.11 FEET; THENCE RUN SOUTH 89°26'47" WEST, A DISTANCE OF 10.00 FEET TO THE POINT OF BEGINNING.

PARCEL 4:
A PARCEL OF LAND LYING IN SECTION 36, TOWNSHIP 24 SOUTH, RANGE 36 EAST, TALLAHASSEE BASE MERIDIAN, BREVARD COUNTY, FLORIDA, MORE FULLY DESCRIBED AS FOLLOWS:
COMMENCE AT THE INTERSECTION OF THE SOUTH RIGHT-OF-WAY LINE OF FORTENBERRY ROAD AND THE EAST RIGHT-OF-WAY LINE OF PLUMOSA AVENUE; THENCE RUN SOUTH 00°33'13" EAST ALONG SAID EASTERLY RIGHT-OF-WAY LINE, A DISTANCE OF 1,317.80 FEET; THENCE RUN NORTH 89°26'47" EAST, A DISTANCE OF 435.80 FEET TO A POINT ON THE ARC OF A NON-TANGENT CURVE CONCAVE TO THE SOUTHWEST, SAID POINT ALSO BEING ON THE NORTHERLY RIGHT-OF-WAY LINE OF FORTENBERRY ROAD; THENCE RUN SOUTHEASTERLY ALONG AND AROUND THE ARC OF SAID CURVE AND SAID SOUTHERLY RIGHT-OF-WAY LINE, A DISTANCE OF 1,236.16 FEET; THENCE RUN SOUTH 89°06'37" EAST, A DISTANCE OF 1,111.10 FEET; THENCE RUN SOUTH 00°53'23" WEST, A DISTANCE OF 25.00 FEET TO THE POINT OF BEGINNING; THENCE RUN SOUTH 89°06'37" EAST, A DISTANCE OF 212.26 FEET; THENCE RUN SOUTH 00°53'23" WEST, A DISTANCE OF 354.45 FEET; THENCE RUN SOUTH 89°06'37" WEST, A DISTANCE OF 105.00 FEET; THENCE RUN SOUTH 00°53'23" WEST, A DISTANCE OF 212.26 FEET; THENCE RUN NORTH 89°06'37" WEST, A DISTANCE OF 105.00 FEET TO THE POINT OF BEGINNING.

REVISIONS	BY
PROGRESS SET 01/18/2023	

FORTENBERRY ROAD APTS.
LOCATED AT:
MERRITT ISLAND, FLORIDA
FOR
WOODFIELD

GEORGE L. MOURIZ
AR0007805

MSA ARCHITECTS, INC
AA0000893
8950 SW 74th COURT
SUITE 1513
MIAMI, FLORIDA 33156
(305) 273-9911

MSA ARCHITECTS
ARCHITECTURE & PLANNING

COPYRIGHT © 2022 MSA ARCHITECTS, INC. THIS ARCHITECTURAL WORK AND ITS ELEMENTS, DESIGNS AND DETAILS, DRAWINGS FOR THIS BUILDING AND/OR OVERALL PROJECT ARE THE LEGAL PROPERTY OF AND ALL RIGHTS ARE RESERVED BY THE ARCHITECT. THEIR USE FOR REPRODUCTION, CONSTRUCTION OR DISTRIBUTION IS PROHIBITED UNLESS AUTHORIZED IN WRITING BY THE ARCHITECT.

ARCHITECT:
MSA ARCHITECTS
8950 SW 74th COURT, SUITE 1513
KENDALL, FL 33156
305-273-9911

SURVEYOR
KIN SURVEY
5220 US-1, SUITE 104
VERO BEACH, FL 32967
588-396-7770

ENGINEER / PLANNER:
LAND PLAN ENGINEERING GROUP, INC.
1475 NW 126 DRIVE
CORAL SPRINGS, FL 33071
954-812-5651

DRAWN	
DATE	09/08/2022
SCALE	AS SHOWN
JOB NO.	2163.PRJ

SHEET TITLE:
PRELIMINARY DEVELOPMENT PLAN

SHEET NUMBER:
PDP-1

PRELIMINARY DEVELOPMENT PLAN

SCALE: 1"=60'-0"

PROGRESS 2023.01.18

PRELIMINARY RENDERING

SCALE: 1"=80'-0"

MSA ARCHITECTS
ARCHITECTURE & PLANNING

MSA ARCHITECTS, INC.
AA0000895

MERRITT ISLAND APTS.
LOCATED AT
MERRIT ISLAND, FLORIDA
FOR
WOODFELD

RE-1

PRELIMINARY RENDERING

PLANNING AND ZONING BOARD/LOCAL PLANNING AGENCY MINUTES

The Brevard County Planning & Zoning Board met in regular session on **Monday, January 9, 2023,** at **3:00 p.m.**, in the Florida Room, Building C, Brevard County Government Center, 2725 Judge Fran Jamieson Way, Viera, Florida.

The meeting was called to order at 3:00 p.m.

Board members present were: Board members present were: Henry Minneboo (D1); Ron Bartcher (D1); Brian Hodgers (D2); Robert Sullivan (D2); Lorraine Koss (Alt. D2); Ben Glover, Vice Chair (D3); Mark Wadsworth, Chair (D4); Peter Filiberto (D5); and John Hopengarten (BPS).

Staff members present were: Jeffrey Ball, Planning and Zoning Manager; Jane Hart, Planner III; Alex Esseesse, Deputy County Attorney; Billy Prasad, Special Projects Coordinator IV; and Jennifer Jones, Special Projects Coordinator.

Excerpt of Complete Agenda

NDA Merritt Project Zenith, LLC; and SES Merritt Project Zenith, LLC (Kim Rezanka)
A change of zoning classification from BU-1 (General Retail Commercial) and BU-2 (Retail, Warehousing, and Wholesale Commercial), with two existing BDP's (Binding Development Plan), to PUD (Planned Unit Development), with waivers, and removal of two existing BDP's. The property is 15.11 +/- acres, located on the southwest corner of Fortenberry Rd. and Harbour Woods Blvd. (No assigned address. In the Merritt Island area.) (22Z00062) (Tax Accounts 2428002, 2428157, 2428161, & 2428163) (District 2)

Jeffrey Ball clarified for the board that the request is for a PUD, which has a Preliminary Development Plan (PDP) that gets approved with the zoning action, and with that, there are a couple of waivers that have been requested. Two of the waivers are for setbacks, but based on staff review, those are not needed; however, there is an additional waiver needed that goes with the open space requirement of 25%. In addition, there is a list of potential conditions in the staff comments if the board wishes to include them in its recommendation.

Kim Rezanka, Lacy, Lyons, Rezanka, 1290 U.S. Highway 1, Rockledge. [Ms. Rezanka presented handouts to the board. The handouts can be found in zoning file 22Z00062, located in the Brevard County Planning and Development Department.] She stated her client is requesting a change of zoning from BU-1 and BU-2 to PUD with a recommendation of approval of the Preliminary Development Plan (PDP), and removal of two existing BDPs that limit commercial use. She said the subject property is on Fortenberry Road, behind Merritt Square Mall, it is the old paint ball field and skate park that has been shut down for several years. The PDP allows flexibility and design, and also allows the developer to work around two wetlands on the site that will be preserved. She explained the plan is to have 370 luxury apartments within five buildings; the apartments are five floors with elevators, which will be 60 - 62 feet in height; and there will be a clubhouse, a pool, and a dog park. Fortenberry Road is to the north, and South Plumosa Street is to the west, as well as two credit unions. Harbor Woods Boulevard is to the east, and Harbor Woods condominium is to the south, and there is single-family rental property to the south, owned by Phil Cohen. She stated the revised PDP shows three waivers; one is a waiver to the 25-foot reduction from the 2:1 setback requirement along the south interior property line. Staff has said that waiver is not needed, but a 2:1 ratio at a 60-foot building is 120 feet and there is only 95 feet, so they are still asking for the 25-foot waiver; and if it is not needed it at final development, it will come out. She said the developer is also asking for a reduction of 1.1 acre in the open space requirement because the property is a unique size and has wetlands that are intended to be preserved, and also the Veterans Memorial Park, which has many amenities that the residents of the apartment complex will be able to use. The open space

requirement is not as necessary as most PUD's because there is recreation to the east at the Veterans Memorial Park. The final waiver requested is a waiver to allow one main access point to Harbor Woods Boulevard and Fortenberry Road. The Access Management code, 62-2957(c)(1) requires three accesses for over 350 units, but the developer's life safety expert has said that is not necessary with the two accesses on Fortenberry Road and Harbor Woods Boulevard, so they are asking for a waiver to 62-2957(c)(1) to allow two access entrances instead of three. She noted if necessary, the developer could create an access off of Plumosa Street, but there are some wetlands that would be impacted and they prefer not to do that, and residents do not want more traffic on Plumosa as it is a substandard local road. She stated County staff identified a concern as to Harbor Woods Boulevard; however, that road was transferred to the County by Pulte Group in 2009, so Harbor Woods Boulevard is owned by the County; it may not be County-maintained, but it is owned by the County. The other issue identified was stormwater, and Ken Good is working with the County to resolved whether or not three of the four parcels was in the basin study for the Veterans Memorial stormwater basin, so hopefully the third parcel can be pulled in as well. If not, the final development plan and site plan will have retention on site. She said County staff also suggested a SCAT bus stop, but a stop already exists on Fortenberry Road, very near the proposed project, and also at the Merritt Square Mall, but the developer will look into possibly changing the bus stops or something else that will make it more friendly for bus usage. The MIRA board reviewed the project on December 8, 2022, and unanimously recommended approval of the PDP. The MIRA board did not have the access management waiver or the open space requirement, but they did have what the P&Z board has, and those waivers were not on the PDP at the time. The MIRA board's justification for the recommendation was the lack of new multi-family housing on Merritt Island, the growing employment base, a vision for mixed-use development around the mall to help meet housing needs and promote economic development, and that the Comprehensive Plan states that the County should, "encourage high-density development in clustered patterns". Additionally, she held a community meeting on January 4, 2023; 150 notices were mailed and nine people attended. The concerns raised at the community meeting were, increased traffic on Harbor Woods Boulevard and traffic in the area, future development plans for the mall and the effect on road congestions, and safety at the intersection of Harbor Woods Boulevard and Fortenberry Road. She said safety at the intersection will be addressed with Public Works and if there are any improvements that are needed offsite the developer will include that in the final development plan and site plan. She continued, the residents were also concerned about the type of construction; it is intended to be concrete block, but construction prices in two years are unknown. She said other concerns of the residents were construction noise, and landscape and buffering. She stated building 1, adjacent to Fortenberry Road, will be 145 feet from the property line to the west; building 3, to the east, is 147 feet from the property line to the west and goes through the maintained wetland area; and building 5, adjacent to Harbor Woods Boulevard, is 95 feet from the property line to the south.

Ross Abramson, Woodside Acquisitions, stated they have a site in Palm Bay that they are going through the entitlements on; and a second site in Palm Bay they are hoping to break ground on this summer, which is a $125 million mixed-use project. He said Woodside Acquisitions pride themselves on being a custom design developer; they hire top tier consultants, architects, landscape architects, interior designers, and civil engineers.

Jeffrey Ball clarified that Waiver No. 3, the requirement for three access points, has not been analyzed by staff of the impacts.

Peter Filiberto asked if the waiver for the three access points go to site plan review. Mr. Ball replied potentially they could ask for it at the site plan stage, but because this is a PDP they are asking for it now. Staff has not had the opportunity to review that as far as impacts on the traffic and if it meets code.

Henry Minneboo asked if the board can make it a requirement of the PDP that there only be two accesses. Mr. Ball replied his suggestion would be for the board to condition the PDP to require two accesses, as it is certainly under the board's purview to grant the waiver having only two accesses.

Mr. Filiberto stated his initial thoughts are that they are preserving three acres of wetlands, and having four acres of open space on 15 acres, so over 40% of the property is going to be open space or wetlands, and that decreases the density. He said he believes the property could get the waiver for the two access points. He stated for the third access point, he would prefer to preserve that wetland than put an access through it.

John Hopengarten stated what was presented at MIRA prior in December were three-story buildings and one five-story building. Now, they are five stories. Mr. Abramson stated previously, there were two three-story buildings and four five-story buildings. Mr. Hopengarten stated what was presented to MIRA and what is in the Planning and Zoning Board's package is different. He said he doesn't have a problem with it as long as it complies. He asked if elevators will be in all of the buildings. Mr. Abramson replied yes. Mr. Hopengarten stated if they can't build with concrete block, will they use wood. Mr. Abramson replied the intention is to build concrete, and that's how it's being designed, but in two years concrete doubles could double making it not feasible.

Mr. Hopengarten asked if staff has seen the waiver for the open space, because he doesn't think there is 5.5 acres. Mr. Ball replied they don't have 5.5 acres, but the waiver request is to reduce that open space requirement. He explained, the code requires multi-family to have 25% open space, which is 5.5 acres, so with the waiver, the open space is reduced by one acre.

Kim Rezanka stated that came from the staff comments, which said they needed to ask for the waiver. She said she believes it is appropriate because of the wetlands and because of the Veterans Memorial Park, which has amenities for the residents.

Mr. Hopengarten asked if anyone has suggested widening the road between Fortenberry Road and Sykes Creek Parkway. Ms. Rezanka replied they don't know yet, but the staff comments refer to Fortenberry as an Urban Collector.

Robert Sullivan asked if it has gone through Fire Safety because it is an Urban Collector. Ms. Rezanka replied no, it is just a preliminary development plan, it has not been fully engineered. She said the County can require offsite improvements if necessary for the project.

Mr. Sullivan asked if the developer is trying to use the wetlands for stormwater. Ms. Rezanka replied no, her understanding is that Veterans Memorial Park was designed to take stormwater from the entire area. The idea was to take water from S.R. 520 all the way back to these properties to have extra capacity; it may even be connected to the Merritt Square Mall stormwater. Stormwater is a site plan issue, but she believes there is extra capacity at the Veterans Memorial Park, and if not, they will have to re-design the stormwater and have less units.

Mr. Hopengarten asked if the developer can put in a playground area at the pool site. Mr. Abramson replied they could certainly add a children's playground.

Ron Bartcher asked if the roadway is or is not county-maintained. Ms. Rezanka replied it is owned by the County. Mr. Bartcher asked if staff can staff verify it is owned by the County. Ms. Rezanka replied she obtained the information from the Property Appraiser's Office, who gave her the deed to supply to the County.

Mr. Bartcher asked if the road needs maintenance to accommodate the residents of the apartments, and asked if it is not county-maintained, who will pay for the maintenance. Mr. Ball replied staff is in the process of reviewing a traffic impact analysis, and that review will be complete before the County Commission meeting. He said as far as the maintenance of Harbor Woods Boulevard, it is his understanding that it is a county road that is maintained by others, so it would be a private road. They would still need to get approval from that maintenance entity to get access, and it will all be handled through Public Works at a later stage.

Mr. Minneboo stated Harbor Woods has been there since the 1980's; they have maintained it for years; and there has always been a question about ownership of the right-of-way, which is not uncommon. He said in 2008 or 2009, it was turned over to the County for numerous reasons, but it is maintained by Harbor Woods. He stated he is adamant about if there is an existing access point, it should be utilized, but three access points on Fortenberry Road are not needed.

Mr. Bartcher stated his only concern is who maintains it, and if that is a problem for the applicant. Ms. Rezanka stated she intends to find out as soon as possible.

Mr. Bartcher asked if the developer has thought about any walking access because of the close proximity to the Merritt Square Mall. Ms. Rezanka replied no, but that is something they will look into.

Mr. Bartcher asked, considering climate change and sea level rise, and Merritt Island's average elevation is only three feet, has the developer taken into account that kind of problem. Mr. Abramson replied approximately the northern half of the site is not in a flood zone, but the buildings will be above the flood elevation, which is a minimum of one foot above the base flood elevation.

Mr. Bartcher stated the hospital development across from mall has made significant changes to their plan to accommodate the anticipated sea level rise, and asked if Mr. Abramson will have only office space on the first floors. Mr. Abramson replied with the exception of the clubhouse, the project is fully residential, so there will be residences on the ground level, but the buildings will be above the FEMA flood elevations.

Public Comment:

Phil Cohen, 426 and 420 S. Plumosa Street, stated he owns property on the south side of the subject property, and he is not in support of, nor opposed to, the proposed project. He said one of his concerns is the water runoff of so many tall buildings, there are a lot of low lying areas; originally, they were going to be three-story buildings and now they are five-story buildings, allowing the tenants to be able to look down on the neighboring properties. He said he is also concerned that a waiver is needed because in order to meet code, 5.5 acres of open space is needed, as well as the possibility of a third access point, which he assumes would be along Plumosa Street. He said he believes there are options that all of those things could be met, and if the project is done correctly, he has no

problems. He said if there are only two accesses along Fortenberry Road, traffic will be bad unless it is widened to four lanes, or if there is a full turning lane along the whole corridor.

Ben Glover asked if two of the waivers are because of the increase in height. Ms. Rezanka replied the waiver to height was always there. One of the new waivers is the open space waiver because there was a miscalculation, and the other waiver is for the access that came up during staff review, and she did not know there needed to be three access points. She said one of the main purposes of a PUD is to allow waivers so wetlands can be preserved, buildings can be re-arranged, and other things that could not be done under normal circumstances. She noted the setbacks have also being increased; the setbacks from Mr. Cohen's property is 147 feet on the edge of the building, not where the windows will be facing his property, and all of the buildings facing south are also the edges of the building.

Mr. Minneboo asked if the civil engineers are looking at the primary as the drainage to pond to the east.

Ken Good, Atkins Global, Engineer of Record, replied the intent is to utilize the existing ponds around the Veterans Park because that is why they were built. He said in doing the research, the drainage basin line for those ponds runs right through the middle of the project. In talking with staff, there has been some internal discussions and thoughts that they should open that up a little bit to allow some of the surrounding parcels to also utilize those existing ponds because there are some parcels within that basin that will never be developed and never be utilized at the capacity that was planned.

Mr. Minneboo asked if Mr. Good is also handling the traffic, as far as two driveways. He said there is an existing driveway that has been there for years and it works. He stated if the decision is made to move forward, he'd like to put that in a binding development plan.

Mr. Glover asked if Mr. Minneboo wants one access on Fortenberry and one on Harbor Woods. Mr. Minneboo replied yes, he believes that is where the emphasis should be placed.

Ms. Rezanka stated that is the intent, that's what has been set forward in the PDP, and it would be a note on the PDP that that is what is intended; it would be a condition of approval along with the other conditions put forward by staff, because that would then transfer with the PDP and ultimately would be in the general statement on the final development plan if necessary.

Motion by Henry Minneboo, seconded by Peter Filiberto, to approve change of zoning classification from BU-1 and BU-2, with two existing BDPs, to PUD and removal of the two existing BDPs, with the proposed 7 conditions, and an added 8th condition of one access on Fortenberry Road and one access on Harbor Woods Boulevard. The motion passed unanimously.

Objection
22Z00062
Project Zenith

From: Carol
To: Jones, Jennifer
Subject: ID# 22Z00062
Date: Saturday, December 24, 2022 9:20:36 PM

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

I'm a 42-year resident of Merritt Island and I could not object more strongly to allowing a change in zoning so that these people can build residential units on that land. It could not be a more inappropriate place to do that. For whatever it matters to the Board of County Commissioners, constructing residential units in that place would be as inappropriate as it was wonderful to have the VFW park built in that area. That was a blessing. This would be a curse in so many aspects.

Carol Waxman

Objection
22Z00062
Project Zenith

Commissioner, D4

From: Cris <misstiana80@yahoo.it>
Sent: Wednesday, January 18, 2023 9:28 AM
To: Commissioner, D1; Commissioner, D2; Commissioner, D3; Commissioner, D4; Commissioner, D5
Subject: OPPOSITION TO ZONING CHANGE/MERRITT ISLAND

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

To whom it may concern,

We are Daniel Snyder and Cristiana Sgarbossa, residents at 285 Bel Aire Drive South, Merritt Island 32952.

We are writing this email to inform you about our **opposition** to the zoning change from BU-1 and BU-2 to a PUD and allow the building of a 370 multi family unit apartment complex with a clubhouse and parking on the parcels ID # 2428002, 2428163, 2428161 and 2428157 in Merritt Island.

First of all, the area is currently zoned as a wetland and our neighbourhood (BEL AIRE) has already existing drainage issues which would be extremely aggraved by the constructions and removal of wetland. Also, it would negatively increase the amount of traffic. Our streets do not have the capacity to sustain traffic for a 370 unit apartments.

We please ask you to NOT APPROVE the zone changing and to consider our opposition.

Thank you

Daniel and Cristiana

Objection
22Z00062
Project Zenith

Bellak, Christine

From: Christopher Wallace <c.wallace321@yahoo.com>
Sent: Monday, January 23, 2023 11:22 PM
To: Bellak, Christine
Subject: Proposed 370 unit project

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Good morning Christine,

I sent this email earlier today to the D4.commissioner email and it was sent back as undeliverable can you get this to the commissioner please.
Thanks
Chris Wallace

Good afternoon to all of you,

I am reaching out today to oppose the proposed 370 unit apartment complex being planned behind Merritt Square Mall and next to the Bel Aire subdivision. I am a 35 year resident of Bel Aire and we currently own two homes in this neighborhood. My concerns are that the area already floods and holds water even during a small afternoon storm Much less the flooding during names storms. The residents of our community never received any notice on this unless you lived within 500 ft of our rear entrance unfortunately a protect of this size will negatively impact us through drainage, ingress and egress and the current waste water pump station at the corner of Plumosa and Fortenberry road had to be pumped out and hauled off during the last two hurricanes we had it can't handle the waste strain that this project would create on a daily basis. The retention pond to the east of the project where the supposed run off would go was at crest level parallel with the road during those same storms previously mentioned. Please take in consideration all of these infrastructure issues I have listed with our existing 60 year old community and know the negative impact of a new much higher elevation build would cause to all of the surrounding homes and businesses surrounding the three parcels I know it's to late to stop the zoning change and eliminating the wetland status as this project was slipped under our noses before we know what was happening but myself and many other neighbors will be in attendance at the 2/2/23 meeting when This project is to be voted on.

Thank you for your time,
Chris Wallace
340 Antigua drive
130 S Bel Aire drive Merritt Island 32952
321-848-4228

Sent from my iPhone

Objection
22Z00062
Project Zenith

Commissioner, D4

From: sjperin@cfl.rr.com
Sent: Wednesday, January 25, 2023 9:18 AM
To: Commissioner, D4
Subject: Proposed zoning change

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Dear Commissioner Feltner,

I am writing to you regarding what is to me and many other Merritt Island residents, a most serious matter.

We have become aware that a developer has petitioned for approval for the construction of a 370 multi-family unit apartment complex on parcels # 2428002, 2428163,2428161 & 2428157 in Merritt Island. We strongly oppose the change from BU-1 & BU-2 to a PUD complete with a clubhouse and parking.

This change would allow the developer to build on an area that is currently zoned as wetland. Such an environmentally impacted change would also result in potential area flooding, in an area that is already faced with flooding problems and exacerbate the current area traffic flow problems and increase neighborhood access and egress problems.

Furthermore, the developer was negligent in the proper posting of signs attesting to the proposed initial petition and the date and time of that hearing were also wrong, thus preventing citizens from presenting their disapproval.

As a representative of the East Merritt Island Homeowners Association, I most sincerely urge you and your colleagues to vote your disapproval.

Sincerely,

Sebastian J. Perin

Objection
22Z00062
Project Zenith

Commissioner, D4

From: Carol <carangel@onemain.com>
Sent: Wednesday, January 25, 2023 2:46 PM
To: Commissioner, D2
Cc: Commissioner, D1; Commissioner, D3; Commissioner, D4; Commissioner, D5
Subject: Proposed apartment complex on Merritt Island next to Veterans Memorial Park on Fortenberry Road

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

I would like to state my very strong objection to the building of this complex on Fortenberry Road in Merritt Island. It is completely out of place in an area of one-or two-story homes in nearby subdivisions and two-story condo complexes. Given its size and density, the proposed complex would be built on a postage stamp-size lot that looks in shape like a radically gerrymandered district.

The surrounding roads are totally inadequate to accommodate five new five-story buildings and approximately 380 new families. There are already issues with water drainage in the neighboring Penn Place condos right next to the proposed site. That would only get worse with this new construction. I understand there are other considerable drainage/water issues.

As for traffic, Fortenberry Road does not even have a left turn lane when you are driving west on Fortenberry and want to turn left onto Harbor Woods Boulevard. All traffic behind you on Fortenberry is stopped as you wait to cross the oncoming traffic to get in there. Try adding 380 new families to that number of people trying to turn in.

And I was told at the informational meeting on January 4th, 2023, that Plumosa would not be used for ingress and egress to the new complex except for emergency vehicles like fire and police. It now appears in the latest incarnation of their proposed plan that Plumosa might have to be used for ordinary ingress and egress. Plumosa is like a country road, with one lane in each direction and it would not support the kind of traffic that would come from these densely occupied apartment buildings.

The VFW park is a gift that dropped from heaven for the residents of the nearby subdivisions, like mine. That gift of a peaceful, beautiful place to walk is now trying to be squeezed into the new complex's acreage requirement to accommodate the fact that this complex does not have enough open space to meet those acreage requirements for the number of units they'd build. So now they're saying they'll just add in the acreage of the VFW park to their own in order to overcome the fact that their combined lots are not sufficient to meet the open space requirement for their number of units in five 5-story buildings.

Many of us who walk regularly in the park enjoy the beautiful sunset to the west. While the developer said the residents of the 5-story buildings would have a beautiful view of the park, conversely, those of us in the park instead of seeing the beautiful treeline, clouds and a setting sun to the west, would see five concrete buildings. Talk about impact on quality of life.

Aside from traffic and drainage problems, aesthetically it just doesn't fit. I'm not against all development, but I am objecting to trying to squeeze a big apartment complex into a small raggedly shaped lot and impacting the natural beauty of the wetlands and the park in order to profit from this three-building five-story apartment development. I cannot object strongly enough. I am a 40+ year resident of Merritt Island and this proposed project is inappropriate for the space and destructive to the quality of life of those in the surrounding areas they're trying to build on top of.

Please do NOT support this particular development.

Carol Waxman

Commissioner, D4

From: Carol <carangel@onemain.com>
Sent: Wednesday, January 25, 2023 4:01 PM
To: Commissioner, D2
Cc: Commissioner, D1; Commissioner, D3; Commissioner, D4; Commissioner, D5
Subject: Proposed Merritt Island Apartment Complex next to VFW Park on Fortenberry Road

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

In my previous email to you today, I referred to five 5-story buildings. I am aware that the current proposed plan is for three 5-story buildings. All the points I made in the prior email objecting to the project are exactly the same, whether it's three or five buildings.

Thank you.

Carol Waxman

Commissioner, D4

From: Colleen Pierson <cpier38620@aol.com>
Sent: Thursday, January 26, 2023 8:02 AM
To: Commissioner, D2
Cc: Commissioner, D1; Commissioner, D3; Commissioner, D4; Commissioner, D5
Subject: Changing Merritt Island wetlands for a 370 multi-family apartment comples

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

I am emailing to express my displeasure of the way you are handling our wetlands for multi-family apartment development of parcel ID#2428002, 2428163,2428161 and 2428157. We know you quietly passed a zoning change from BU-1 and BU-2 to a PUD to allow this to go forward.
Do you realize how many vehicles will be added to our 2 land roads which are already crowded and our poor drainage issues of which I have already address to you.

Please don't do this. You will be adding to the existing problems not fixing them.

Sincerely,

Colleen Pierson
140 Bel Aire Dr. S.
Merritt Island

Objection
22Z00062
Project Zenith

From: Colleen Pierson
To: Commissioner, D2
Cc: Commissioner, D1; Commissioner, D3; Commissioner, D4; Commissioner, D5
Subject: Changing Merritt Island wetlands for a 370 multi-family apartment comples
Date: Thursday, January 26, 2023 8:01:52 AM

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

I am emailing to express my displeasure of the way you are handling our wetlands for multi-family apartment development of parcel ID#2428002, 2428163,2428161 and 2428157. We know you quietly passed a zoning change from BU-1 and BU-2 to a PUD to allow this to go forward.
Do you realize how many vehicles will be added to our 2 land roads which are already crowded and our poor drainage issues of which I have already address to you.

Please don't do this. You will be adding to the existing problems not fixing them.

Sincerely,

Colleen Pierson
140 Bel Aire Dr. S.
Merritt Island

Objection
22Z00062
Project Zenith

From: Cris
To: Commissioner, D1; Commissioner, D2; Commissioner, D3; Commissioner, D4; Commissioner, D5
Subject: OPPOSITION TO ZONING CHANGE/MERRITT ISLAND
Date: Wednesday, January 18, 2023 9:28:49 AM

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

To whom it may concern,

We are Daniel Snyder and Cristiana Sgarbossa, residents at 285 Bel Aire Drive South, Merritt Island 32952.

We are writing this email to inform you about our **opposition** to the zoning change from BU-1 and BU-2 to a PUD and allow the building of a 370 multi family unit apartment complex with a clubhouse and parking on the parcels ID # 2428002, 2428163, 2428161 and 2428157 in Merritt Island.

First of all, the area is currently zoned as a wetland and our neighbourhood (BEL AIRE) has already existing drainage issues which would be extremely aggraved by the constructions and removal of wetland. Also, it would negatively increase the amount of traffic. Our streets do not have the capacity to sustain traffic for a 370 unit apartments.

We please ask you to NOT APPROVE the zone changing and to consider our opposition.

Thank you

Daniel and Cristiana

Objection
22Z00062
Project Zenith

From: Carol
To: Commissioner, D2
Cc: Commissioner, D1; Commissioner, D3; Commissioner, D4; Commissioner, D5
Subject: Proposed apartment complex on Merritt Island next to Veterans Memorial Park on Fortenberry Road
Date: Wednesday, January 25, 2023 2:46:21 PM

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

I would like to state my very strong objection to the building of this complex on Fortenberry Road in Merritt Island. It is completely out of place in an area of one-or two-story homes in nearby subdivisions and two-story condo complexes. Given its size and density, the proposed complex would be built on a postage stamp-size lot that looks in shape like a radically gerrymandered district.

The surrounding roads are totally inadequate to accommodate five new five-story buildings and approximately 380 new families. There are already issues with water drainage in the neighboring Penn Place condos right next to the proposed site. That would only get worse with this new construction. I understand there are other considerable drainage/water issues.

As for traffic, Fortenberry Road does not even have a left turn lane when you are driving west on Fortenberry and want to turn left onto Harbor Woods Boulevard. All traffic behind you on Fortenberry is stopped as you wait to cross the oncoming traffic to get in there. Try adding 380 new families to that number of people trying to turn in.

And I was told at the informational meeting on January 4th, 2023, that Plumosa would not be used for ingress and egress to the new complex except for emergency vehicles like fire and police. It now appears in the latest incarnation of their proposed plan that Plumosa might have to be used for ordinary ingress and egress. Plumosa is like a country road, with one lane in each direction and it would not support the kind of traffic that would come from these densely occupied apartment buildings.

The VFW park is a gift that dropped from heaven for the residents of the nearby subdivisions, like mine. That gift of a peaceful, beautiful place to walk is now trying to be squeezed into the new complex's acreage requirement to accommodate the fact that this complex does not have enough open space to meet those acreage requirements for the number of units they'd build. So now they're saying they'll just add in the acreage of the VFW park to their own in order to overcome the fact that their combined lots are not sufficient to meet the open space requirement for their number of units in five 5-story buildings.

Many of us who walk regularly in the park enjoy the beautiful sunset to the west. While the developer said the residents of the 5-story buildings would have a beautiful view of the park, conversely, those of us in the park instead of seeing the beautiful treeline, clouds and a setting sun to the west, would see five concrete buildings. Talk about impact on quality of life.

Aside from traffic and drainage problems, aesthetically it just doesn't fit. I'm not against all development, but I am objecting to trying to squeeze a big apartment complex into a small raggedly shaped lot and impacting the natural beauty of the wetlands and the park in order to profit from this three-building five-story apartment development. I cannot object strongly enough. I am a 40+ year resident of Merritt Island and this proposed project is inappropriate for the space and destructive to the quality of life of those in the surrounding areas they're trying to build on top of.

Please do NOT support this particular development.

Carol Waxman

Objection
22Z00062
Project Zenith

From: sjperin@cfl.rr.com
To: Commissioner, D1
Subject: Proposed zoning change
Date: Wednesday, January 25, 2023 9:14:07 AM

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Dear Commissioner Pritchett,

I am writing to you regarding what is to me and many other Merritt Island residents, a most serious matter.

We have become aware that a developer has petitioned for approval for the construction of a 370 multi-family unit apartment complex on parcels # 2428002, 2428163,2428161 & 2428157 in Merritt Island. We strongly oppose the change from BU-1 & BU-2 to a PUD complete with a clubhouse and parking.

This change would allow the developer to build on an area that is currently zoned as wetland. Such an environmentally impacted change would also result in potential area flooding, in an area that is already faced with flooding problems and exacerbate the current area traffic flow problems and increase neighborhood access and egress problems.

Furthermore, the developer was negligent in the proper posting of signs attesting to the proposed initial petition and the date and time of that hearing were also wrong, thus preventing citizens from presenting their disapproval.

As a representative of the East Merritt Island Homeowners Association, I most sincerely urge you and your colleagues to vote your disapproval.

Sincerely,

Sebastian J. Perin

Objection
22Z00062
Project Zenith

From: Annette Cripps
To: Commissioner, D1
Subject: Zoning Issue
Date: Tuesday, January 24, 2023 9:10:18 PM

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Dear Commissioner Pritchett,

With regard to the re-zoning that occurred on Merritt Island for (Parcel ID numbers) 2428002,2428163, 2428161 and 2428157:

I want to strenuously object. This land was re-zoned without proper notice to the community from BU-1 and BU-2 to a PUD so that a 370 unit apartment complex with parking and clubhouse could be submitted for approval. This land is a wetland, and this project would cause traffic problems and add to our already existing drainage issues.

Additionally, the project is being put forward as a "Luxury Apartment Complex" that is 20% "Affordable Housing". This makes no sense.

I understand a meeting is scheduled for February 2nd in Viera, Florida. Unfortunately I will be away and unable to attend. Please do not approve this project. It would be bad for Merritt Island.

Sincerely,
Annette Cripps
1720 Sea Shell Drive
Merritt Island, Florida. 32952
410-710-7589

Objection
22Z00062
Project Zenith

From: cball1@cfl.rr.com
To: Commissioner, D1
Subject: Opposition to planned Apartments in Merritt Island
Date: Wednesday, January 25, 2023 11:43:01 AM

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Commissioner Rita Pritchett,

This email is in reference to parcel ID #'s 2428002, 2428163, 2428161, & 2428157.

I live in and am Secretary/Treasurer for Penn Place Condo Assn on South Plumosa St. Our condos were built in 1980 and over the years have had increasing problems with flooding with heavy rains and hurricanes. In fact, the Jehovah's Witness Church just to the South of us built up a parking lot behind their building a few years ago which caused water runoff onto our property. I can only imagine what more build up in the area to the North and East of us is going to do!

I would like you to know that I oppose this zoning change from BU-1 & BU-2 to a PUD to allow the building of a 370 multi-family unit apartment complex with a clubhouse and parking. Not only will this allow the developers to build on an area that is currently zoned as a wetland, but it will cause issues with traffic, our already existing drainage issues in the area/neighborhood and degrade the ingress & egress of our neighborhood.

Thank you for your time.

Carol Ball

Objection
22Z00062
Project Zenith

From: Christopher Wallace
To: Commissioner, D1; Commissioner, D2; Commissioner, D3; D4.commissioner@brevard.gov; D5.commissioner@brevard.gov
Subject: Proposed 370 apartment complex
Date: Monday, January 23, 2023 12:12:35 PM

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Good afternoon to all of you,

I am reaching out today to oppose the proposed 370 unit apartment complex being planned behind Merritt Square Mall and next to the Bel Aire subdivision. I am a 35 year resident of Bel Aire and we currently own two homes in this neighborhood. My concerns are that the area already floods and holds water even during a small afternoon storm
Much less the flooding during names storms. The residents of our community never received any notice on this unless you lived within 500 ft of our rear entrance unfortunately a protect of this size will negatively impact us through drainage, ingress and egress and the current waste water pump station at the corner of Plumosa and Fortenberry road had to be pumped out and hauled off during the last two hurricanes we had it can't handle the waste strain that this project would create on a daily basis. The retention pond to the east of the project where the supposed run off would go was at crest level parallel with the road during those same storms previously mentioned. Please take in consideration all of these infrastructure issues I have listed with our existing 60 year old community and know the negative impact of a new much higher elevation build would cause to all of the surrounding homes and businesses surrounding the three parcels I know it's to late to stop the zoning change and eliminating the wetland status as this project was slipped under our noses before we know what was happening but myself and many other neighbors will be in attendance at the 2/2/23 meeting when This project is to be voted on.

Thank you for your time,
Chris Wallace
340 Antigua drive
130 S Bel Aire drive Merritt Island 32952
321-848-4228

Sent from my iPhone

Objection
22Z00062
Project Zenith

From: Carol
To: Commissioner, D2
Cc: Commissioner, D1; Commissioner, D3; Commissioner, D4; Commissioner, D5
Subject: Proposed Merritt Island Apartment Complex next to VFW Park on Fortenberry Road
Date: Wednesday, January 25, 2023 4:01:21 PM

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

In my previous email to you today, I referred to five 5-story buildings. I am aware that the current proposed plan is for three 5-story buildings. All the points I made in the prior email objecting to the project are exactly the same, whether it's three or five buildings.

Thank you.

Carol Waxman

Objection
22Z00062
Project Zenith

From: Mike Yetman
To: Commissioner, D2
Cc: Commissioner, D1; Commissioner, D3; d4commissioner@brevardfl.gov; Commissioner, D5
Subject: Zoning Change Issue
Date: Thursday, January 26, 2023 11:42:40 AM

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Re: Parcel ID #'s 2428002, 2428163, 2428161, 2428157

Commissioner Goodson… (Commissioner Pritchett, Commissioner Tobia, Commissioner Feltner, Commissioner Zonka)

First of all welcome aboard to the Brevard Commissioner seat, as a registered voter in your district I will say that I am encouraged to have someone with your passion for the area on board.

I imagine by now you are aware of the proposed 370 unit multi family apartment complex in Merritt Island that is at issue.

#1. I feel as though the zoning change was pushed through without the proper procedures and safeguards to the public knowledge. Particularly with the improper signage at the site and wrong place, date and time notification of the Zoning meeting.

#2. With this approximately 5 acre area of partial wetland being in an already damaged drainage problem area for residents nearby, I feel that beyond the infrastructure problem there will be a significant issue with water run off. The lagoons are already at risk without adding to the problem.

#3. There seems to be a shell game going on as to the owners and as to the origin of the financial backers of this project. Just where is the money coming to finance this project?

I AM AGAINST THIS PROJECT MOVING FORWARD AND I WILL LOOK FORWARD TO SEEING YOU AND THE ALL COMMISSIONERS AT THE FEB 2 MEETING IN VIERA.

Mike Yetman
(321) 474-2732
Mikeyetmansells321@gmail.com

H.8

Response to Traffic Impact Analysis
22Z00062
Project Zenith
(submitted by applicant 02/02/23)

Kimley»Horn

February 1, 2023

Veronica Figueroa-Chanza, PE
Transportation Engineer
Brevard County

RE: Merritt Island Apartments (aka Fortenberry Apartments)
Response to Traffic Impact Analysis Comments

Dear Ms. Figueroa-Chanza:

Kimley-Horn has received comments (dated January 11, 2023) regarding the traffic impact analysis (TIA) (dated December 2022) provided for the proposed Merritt Island Apartments development. The TIA has been revised (dated January 2023) to address the comments. Our responses to the comments are provided below.

TIA Comments:

1. Table 1 - Existing Roadway Segment Analysis (Daily): For S S Plumosa St from Fortenberry Rd to Cone Rd (ID #116), use 2018 AADT instead of 2020 counts and grow them to 2022. Comment applies to Table 6 – Background Roadway Segment Analysis (Daily) and to Table 11 – Background Roadway Segment Analysis (Daily).

KH RESPONSE: The 2018 AADT was used and grown to 2022 for the segment of Plumosa St from Fortenberry Rd to Cone Rd in the existing roadway segment analysis, as shown in Table 1 of the revised TIA. Tables 6 and 11 were also updated in the revised TIA.

2. Per Chapter 62-602.d.1.c of the Brevard County Land Development Regulations, the adopted Level of Service (LOS) for all Brevard County segments is E. Revise all roadway segment tables.

KH RESPONSE: Understood, all roadway segment tables were revised to show the adopted LOS as E for County segments.

3. The project distribution on Fortenberry Rd from S Plumosa St to Sykes Creek Pkwy (#154) is 100%. Comment applies to Table 11 – Buildout Roadway Segment Analysis (Daily) and Table 12 – Buildout Roadway Segment Analysis (PM Peak Hour).

KH RESPONSE: There is a not a point on Fortenberry Rd between Plumosa and Sykes Creek that 100% of project trips pass. Therefore, the project distribution is not 100%. The maximum percent of project trips on the is segment is 69%, between the west project driveway and Plumosa. Only 33% of project trips use Fortenberry between the driveways and 31% use Fortenberry between the east project driveway and Sykes Creek.

4. Include the signal timing sheets in the appendices.

KH RESPONSE: In the revised TIA, the signal timing sheets are included in Appendix F.

5. SR 520 at Courtenay Pkwy
    a. The adopted LOS for state roads is D. Based on this, the intersection does not meet the adopted LOS during any of the analysis periods and scenarios. Additionally, an analysis with improvements is needed under background conditions.
    b. AM analysis: The reference phase is 6, not 2 and 6. Comment applies to Existing, Background, and Buildout conditions.
    c. PM analysis: The reference phase is 2, not 2 and 6. Comment applies to Existing, Background, and Buildout conditions.

KH RESPONSE: In the revised TIA, the reference phases was revised for both the AM and PM analyses. To improve operating conditions at the intersection of SR 520 & Courtenay Parkway, various geometric and signal timings improvements were assessed. Introduction of additional right turn lanes and overlap phases would not improve the overall intersection operations to LOS D under background AM or PM peak hour conditions. While considering improvements, it was noted that shortening the cycle length would improve the overall delay and level of service of the intersection. This signal is part of a coordinated system, so the cycle length cannot be changed without impacting the other intersections in the coordinated system. Therefore, it is recommended that the coordinated traffic signal system along SR 520 be reevaluated as part of the background improvements. If it is determined that shortening the cycle length at SR 520 & Courtenay Parkway is beneficial for the entire corridor, this improvement would improve the overall delay at this intersection to LOS D as shown in the revised TIA. This improvement was not implemented in the background with improvement scenario as the extent of the coordinated system is not within the study are of this analysis.

6. SR 520 at S Plumosa St
    a. AM and PM analyses: The reference phase is 2, not 2 and 6. Comment applies to Existing, Background, and Buildout conditions.
    b. PM analysis: Revise the recall mode for phase 3 to "None". Comment applies to Existing, Background, and Buildout conditions.

KH RESPONSE: In the revised TIA, the reference phase was changed to 2 for the intersection of SR 520 & Plumosa St. In the PM analysis, the recall mode for phase 3 was changed to none.

7. SR 520 at Sykes Creek Pkwy
    a. AM and PM analyses: The reference phase is 6, not 2 and 6. Comment applies to Existing, Background, and Buildout conditions.

KH RESPONSE: In the revised TIA, the reference phase was changed to 6 for the intersection of SR 520 & Sykes Creek Pkwy.

8. Courtenay Pkwy at Fortenberry Rd
    a. Code phase 3 as phase 8 and provide HCM 6th results. Comment applied to all analysis periods and scenarios.

b. There is no westbound right overlap. See Table 1.5.2.1 of the signal timing sheet. Comment applies to all analysis periods and scenarios.
c. AM and PM analyses: The reference phase is 2, not 2 and 6. Comment applies to Existing, Background, and Buildout conditions.
d. AM analysis: Revise the minimum initial green for phase 3. Comment applies to Existing, Background, and Buildout conditions.
e. PM analysis: Revise the offset. Comment applies to Existing, Background, and Buildout conditions.

KH RESPONSE: In the revised TIA, HCM 6th results are provided for the intersection of Courtenay Pkwy & Fortenberry Rd and the westbound right overlap phase removed. The reference phase was changed to 2 for the intersection of Courtenay Pkwy & Fortenberry Rd. In the PM Peak Hour analysis, the offset was also corrected in accordance with the provided signal timings.

9. S Plumosa St at Fortenberry Rd
    a. For uncoordinated intersections the signal controller references the max I or max II timing depending on if the time-of-day schedule or base operations menu dictates. In Synchro, the 'Total Split' time = Max I (or II) + Yellow Change + Red Clearance. The Synchro user guide and NCHRP Report 812 provide more guidance and in-depth discussion. Comment applies to all analysis periods and scenarios.
    b. Swap phases 7 and 8 and provide HCM 6th results. Comment applies to all analysis periods and scenarios.

KH RESPONSE: In the revised TIA, HCM 6th results are provided for the intersection of Plumosa St & Fortenberry Rd. Phases 7 and 8 were swapped in all periods and scenarios.

We believe the updated TIA and comment responses adequately address the County's comments. Please reach out if these comments require further discussion.

Sincerely,

James M. Taylor, P.E.
Project Manager

Merritt Island Apartments

Traffic Impact Analysis

Brevard County, FL

Revised January 2023

Kimley»Horn

Kimley»Horn

TRAFFIC IMPACT ANALYSIS

Merritt Island Apartments

Brevard County, FL

Prepared by:

Kimley-Horn and Associates, Inc.

JAMES MICHAEL TAYLOR, P.E.
STATE OF FLORIDA,
PROFESSIONAL ENGINEER,
LICENSE NO. 69979
THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY JAMES MICHAEL TAYLOR, P.E. ON THE DATE INDICATED HERE.
PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

cn=James M Taylor, c=US, o=KIMLEY-HORN AND ASSOCIATES INC, email=james.taylor@kimley-horn.com
2023.02.02 08:59:05 -05'00'

Revised January 2023

©Kimley-Horn and Associates, Inc. 2023
K:\ORL_TPTO\249168001_Merritt Island Apts\02_Documentation\TIA\January 2023\Merrit Island Apts TIA_1.31.2023.docx

Table of Contents

1.0 INTRODUCTION 1

1.1 Study Area 1

2.0 EXISTING CONDITIONS ANALYSIS 4

2.1 Existing Traffic Counts 4

2.2 Existing Roadway Segment Conditions 4

2.3 Existing Intersection Conditions 7

3.0 DEVELOPMENT TRAFFIC 10

3.1 Trip Generation 10

3.2 Trip Distribution 10

3.3 Trip Assignment 10

4.0 BACKGROUND CONDITIONS ANALYSIS – YEAR 2025 14

4.1 Background Traffic 14

4.2 Background Roadway Segment Analysis 14

4.3 Background Intersection Analysis 17

5.0 BUILDOUT CONDITIONS ANALYSIS – YEAR 2025 21

5.1 Buildout Roadway Segment Analysis 21

5.2 Buildout Intersection Analysis 26

5.3 Buildout Driveway Ingress Turn Lane Analysis 29

6.0 CONCLUSION 30

Figures

Figure 1: Project Location & Study Area 3

Figure 2: Project Trip Distribution 12

Figure 3: Project Trip Assignment 13

Figure 4: AM Peak Hour Buildout Intersection Volumes 22

Figure 5: PM Peak Hour Buildout Intersection Volumes 23

Tables

Table 1: Existing Roadway Segment Analysis (Daily) 5

Table 2: Existing Roadway Segment Analysis (PM Peak Hour) 6

Table 3: Existing Intersection Conditions (AM Peak Hour) 8

Table 4: Existing Intersection Conditions (PM Peak Hour) 9

Table 5: Trip Generation 11

Table 6: Background Roadway Segment Analysis (Daily) 15

Table 7: Background Roadway Segment Analysis (PM Peak Hour) 16

Table 8: Background Intersection Conditions (AM Peak Hour) 18

Table 9: Background Intersection Conditions (PM Peak Hour) 19

Table 10: Background with Improvement Intersection Conditions (PM Peak Hour) 20

Table 11: Buildout Roadway Segment Analysis (Daily) 24

Table 12: Buildout Roadway Segment Analysis (PM Peak Hour) 25

Table 13: Buildout Intersection Conditions (AM Peak Hour) 27

Table 14: Buildout Intersection Conditions (PM Peak Hour) 28

Appendices

Appendix A: Methodology Statement

Appendix B: Concept Site Plan

Appendix C: Turning Movement Counts

Appendix D: FDOT's Florida Traffic Online (FTO) Data

Appendix E: Turning Movement Volume Worksheets

Appendix F: Existing Signal Timings

Appendix G: Space Coast TPO Traffic Counts

Appendix H: Synchro Outputs

Appendix I: ITE Excerpts

Appendix J: CFRPM Model Plot

Appendix K: NCHRP Turn Lane Warrant Worksheets

1.0 INTRODUCTION

Kimley-Horn has been retained to analyze and document the traffic impacts associated with the development of the Merritt Island Apartments. The proposed development is located on the south side of Fortenberry Road, west of Harbor Woods Boulevard, and north of Lands Way in Brevard County.

A portion of the project property is undeveloped, and the eastern part is an abandoned active recreation facility. The proposed Merritt Island Apartments development on the 15.26-acre property consists of ±370 multifamily dwelling units. Buildout of the proposed development is anticipated in 2025. The Methodology Statement approved by County Staff was used to guide this transportation analysis and is provided in **Appendix A.**

Access to the site will be provided via one (1) full access driveway on Fortenberry Road one (1) full access driveway on Harbor Woods Boulevard. The access points are shown in the conceptual site plan provided in **Appendix B**.

1.1 STUDY AREA

The study area, determined using the Brevard County *Guidelines on Minimum Requirements for Traffic Impact Analyses* (2022), was discussed and approved as part of the Traffic Impact Analysis Methodology (**Appendix A**). The agreed-upon study area roadway segments and intersections are listed below and displayed on **Figure 1**.

Study Area Roadway Segments

- Fortenberry Rd from S Courtenay Pkwy to S Plumosa St
- Fortenberry Rd from S Plumosa St to S Skyes Creek Pkwy
- Cone Rd from S Tropical Trl to S Courtenay Pkwy
- Cone Rd from S Courtenay Pkwy to S Plumosa St
- N Plumosa St from Merritt Ave to SR 520
- S Plumosa St from SR 520 to Fortenberry Rd
- S Plumosa St from Fortenberry Rd to Cone Rd
- SR 520 from Hubert Humphrey Bridge to Tropical Trl
- SR 520 from Tropical Trl to Courtenay Pkwy
- SR 520 from Courtenay Pkwy to Plaza Entry
- SR 520 from Plaza Entry to Plumosa St
- SR 520 from Plumosa St to Merritt Sq (Mall Entry)
- SR 520 from Merritt Sq (Mall Entry) to Skyes Creek Pkwy
- SR 520 from Skyes Creek Pkwy to Newfound Harbor Dr
- N Skyes Creek Pkwy from N Banana River Dr to Merritt Ave
- N Skyes Creek Pkwy from Merritt Ave to SR 520
- S Skyes Creek Pkwy from SR 520 to Fortenberry Rd
- Merritt Ave from N Courtenay Pkwy to N Plumosa St
- N Courtenay Pkwy from Needle Blvd to Merritt Ave
- N Courtenay Pkwy from Merritt Ave to SR 520
- S Courtenay Pkwy from SR 520 to Magnolia Ave
- S Courtenay Pkwy from Magnolia Ave to Fortenberry Rd
- S Courtenay Pkwy from Cone Rd to Banana Blvd
- N Tropical Trl from Merritt Ave to SR 520

- S Tropical Trl from Cone Rd to Plantation Rd

Study Area Intersections

- SR 520 & Courtenay Parkway
- SR 520 & Plumosa Street
- SR 520 & Skyes Creek Parkway
- S Courtenay Parkway & Fortenberry Road
- S Plumosa Parkway & Fortenberry Road
- Project Driveway & Fortenberry Road
- Harbor Woods Boulevard/Project Driveway & Fortenberry Road

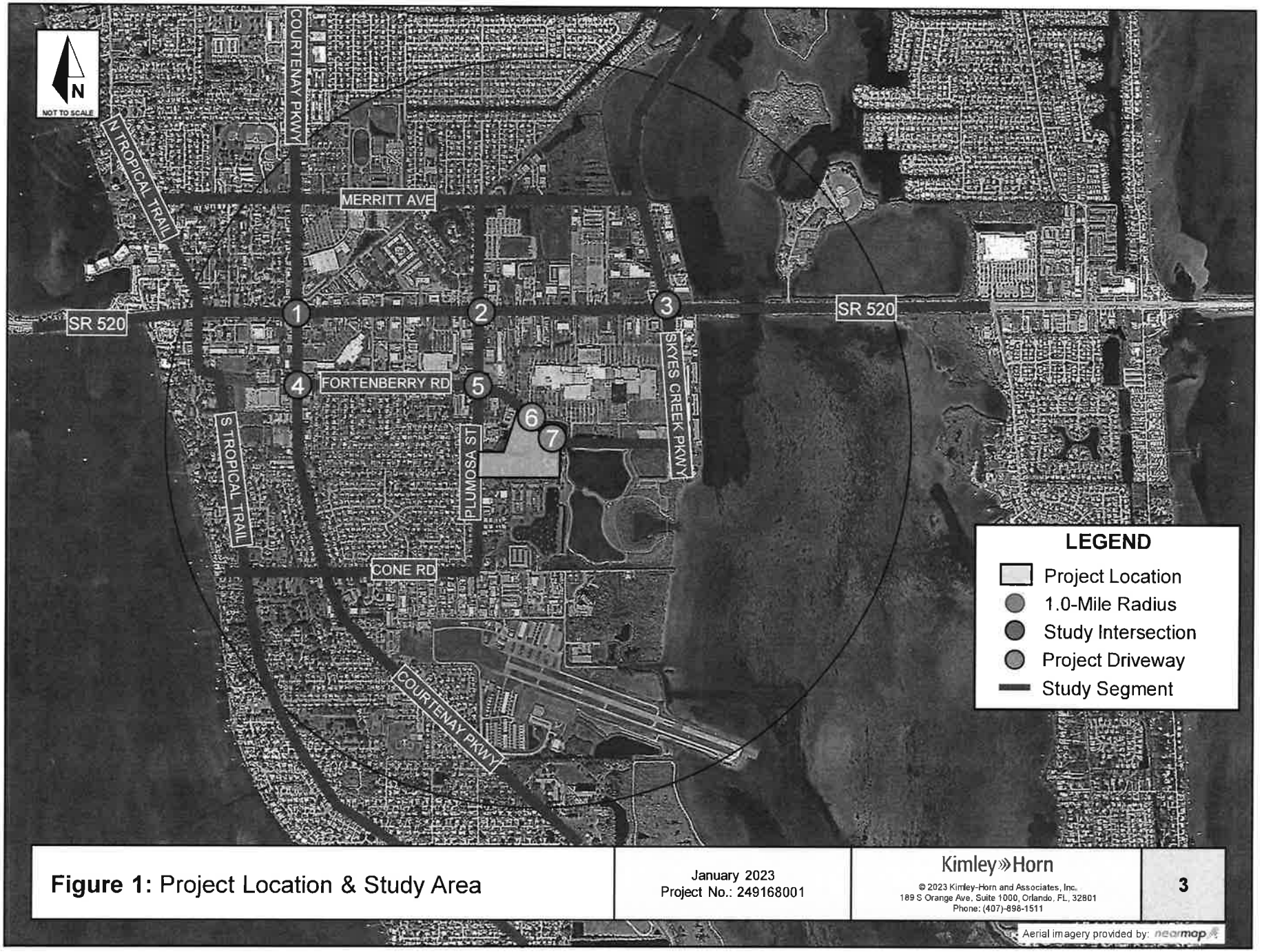


Figure 1: Project Location & Study Area

January 2023
Project No.: 249168001

Kimley»Horn

© 2023 Kimley-Horn and Associates, Inc.
189 S Orange Ave, Suite 1000, Orlando, FL, 32801
Phone: (407)-898-1511

3

Aerial imagery provided by: nearmap

2.0 EXISTING CONDITIONS ANALYSIS

2.1 EXISTING TRAFFIC COUNTS

Turning movement counts (TMCs) were collected at the study intersections on Tuesday, October 18, 2022, and are provided in **Appendix C.** Data was collected during the AM Peak Period (7:00 AM to 9:00 AM) and PM Peak Period (4:00 PM to 6:00 PM) at the study area intersections.

Turning movement volumes were adjusted by a seasonal factor (SF) based on data from FDOT's Florida Traffic Online (FTO) database, as shown in **Appendix D**. Turning movement volume worksheets for all intersections can be found in **Appendix E.**

The signal timing and phasing plan for the signalized intersections in the study area were provided by Brevard County staff and included in **Appendix F.**

2.2 EXISTING ROADWAY SEGMENT CONDITIONS

A roadway segment analysis was performed within the study area to determine existing Daily and PM peak hour conditions. The Daily analysis was conducted by comparing the 2022 Average Annual Daily Traffic (AADT) segment volumes to the TPO's Daily Maximum Service Volumes (MSV) corresponding to the adopted Level of Service (LOS) standard for each roadway segment. 2021 AADTs were obtained from the latest Space Coast Transportation Planning Organization (TPO) Traffic Count publication and grown to existing year 2022 using a 2% annual growth rate, as agreed upon in the TIA Methodology. The Space Coast TPO Traffic Count publication is provided in **Appendix G**.

Additionally, a PM peak hour roadway segment analysis was conducted by comparing peak hour two-way volumes to the peak hour two-way MSV corresponding to the adopted Level of Service (LOS) standard for each roadway segment. Existing peak hour two-way roadway segment volumes are from the Space Coast TPO's most recent data collection. The FDOT Q/LOS Handbook was used to supplement the determination of each segment's peak hour two-way volume.

The existing roadway segment data is included in **Tables 1 and 2** for Daily and PM peak hour conditions, respectively. As shown in the tables, the analysis identifies no roadway segment capacity deficiencies within the study area under existing Daily and PM peak hour conditions.

Table 1: Existing Roadway Segment Analysis (Daily)

Roadway Link ID	From	To	Roadway Attributes: Functional Classification [1]	Number of Lanes	Speed Limit	Adopted LOS[1]	Daily MSV[1]	Daily - Existing (2022): 2021 AADT[1]	Growth Rate	Existing 2022 AADT[2]	V/C Ratio	Existing Deficiency?
Fortenberry Rd												
119	Courtenay Pkwy	Plumosa St	Urban Major Collector	2	35	E	15,600	3,900	2%	3,978	0.26	No
154	Plumosa St	Skyes Creek Pkwy	Urban Major Collector	2	35	E	15,600	3,900	2%	3,978	0.26	No
Cone Rd												
117	Tropical Trl	Courtenay Pkwy	Urban Minor Collector	2	35	E	15,600	4,200	2%	4,284	0.27	No
115	Courtenay Pkwy	Plumosa St	Urban Minor Collector	2	35	E	15,600	4,800	2%	4,896	0.31	No
S Plumosa St												
106	Merritt Ave	SR 520	Urban Minor Collector	2	25	E	15,600	5,260	2%	5,365	0.34	No
120	SR 520	Fortenberry Rd	Urban Minor Collector	2	25	E	15,600	4,160	2%	4,243	0.27	No
116	Fortenberry Rd	Cone Rd	Urban Minor Collector	2	35	E	15,600	5,540	2%	5,997	0.38	No
SR 520												
101	Bridge	Tropical Trl	Urban Principal Arterial - Other	6	45	D	59,900	44,030	2%	44,911	0.75	No
148	Tropical Trl	Courtenay Pkwy	Urban Principal Arterial - Other	6	45	D	59,900	37,330	2%	38,077	0.64	No
97	Courtenay Pkwy	Plaza Ent	Urban Principal Arterial - Other	6	45	D	62,900	30,030	2%	30,631	0.49	No
98	Plaza Ent	Plumosa St	Urban Principal Arterial - Other	6	45	D	62,900	29,680	2%	30,274	0.48	No
99	Plumosa St	Mall Ent	Urban Principal Arterial - Other	6	45	D	62,900	28,180	2%	28,744	0.46	No
100	Mall Ent	Skyes Creek Pkwy	Urban Principal Arterial - Other	6	45	D	62,900	23,830	2%	24,307	0.39	No
149	Skyes Creek Pkwy	Newbound Harbor Dr	Urban Principal Arterial - Other	6	45	D	62,900	28,480	2%	29,050	0.46	No
Skyes Creek Pkwy												
108	N Banana River Dr	Merritt Ave	Urban Major Collector	2	45	E	17,700	9,680	2%	9,874	0.56	No
121	Merritt Ave	SR 520	Urban Major Collector	4	45	E	39,800	10,770	2%	10,985	0.28	No
123	SR 520	Fortenberry Rd	Urban Major Collector	4	35	E	33,800	4,050	2%	4,131	0.12	No
Merritt Ave												
103	Courtenay Pkwy	Plumosa St	Urban Major Collector	4	35	E	33,800	12,780	2%	13,036	0.39	No
Courtenay Pkwy												
131	Needle Blvd	Merritt Ave	Urban Principal Arterial - Other	4	40	E	41,790	32,130	2%	32,773	0.78	No
130	Merritt Ave	SR 520	Urban Principal Arterial - Other	4	40	E	41,790	26,150	2%	26,673	0.64	No
139	SR 520	Magnolia Ave	Urban Minor Arterial	4	35	E	33,800	17,860	2%	18,217	0.54	No
122	Magnolia Ave	Fortenberry Rd	Urban Minor Arterial	4	35	E	33,800	16,840	2%	17,177	0.51	No
114	Cone Rd	Banana Blvd	Urban Minor Arterial	2	35	E	15,600	10,970	2%	11,189	0.72	No
Tropical Trl												
147	Merritt Ave	SR 520	Urban Major Collector	2	25	E	15,600	8,100	2%	8,262	0.53	No
126	Cone Rd	Plantation Rd	Urban Major Collector	2	35	E	12,480	6,730	2%	6,865	0.55	No

Notes

1. Data obtained from Space Coast TPO 2020 Functional Classification, MAV, and LOS Table.

2. Existing (2022) AADT developed by applying the calculated growth rates to 2021 AADT volumes. Per a request from the County, the AADT for S Plumosa St from Fortenberry Rd to Cone Rd (#116) was derived by applying the calculated growth rate to the 2018 AADT.

Table 2: Existing Roadway Segment Analysis (PM Peak Hour)

Roadway			Roadway Attributes [1]					Peak Hour - Existing (2022)		
Link ID	From	To	Functional Classification	Number of Lanes	Speed Limit	Adopted LOS [1]	Peak Hour Two-Way MSV [1]	2022 Peak Hour Two-Way Volume [2]	V/C Ratio	Existing Deficiency?
Fortenberry Rd										
119	Courtenay Pkwy	Plumosa St	Urban Major Collector	2	35	E	1,410	399	0.29	No
154	Plumosa St	Skyes Creek Pkwy	Urban Major Collector	2	35	E	1,410	508	0.37	No
Cone Rd										
117	Tropical Trl	Courtenay Pkwy	Urban Minor Collector	2	35	E	1,410	431	0.31	No
115	Courtenay Pkwy	Plumosa St	Urban Minor Collector	2	35	E	1,410	550	0.4	No
Plumosa St										
106	Merritt Ave	SR 520	Urban Minor Collector	2	25	E	1,410	544	0.39	No
120	SR 520	Fortenberry Rd	Urban Minor Collector	2	25	E	1,410	419	0.3	No
116	Fortenberry Rd	Cone Rd	Urban Minor Collector	2	35	E	1,410	487	0.35	No
SR 520										
101	Bridge	Tropical Trl	Urban Principal Arterial - Other	6	45	D	5,390	3,900	0.74	No
148	Tropical Trl	Courtenay Pkwy	Urban Principal Arterial - Other	6	45	D	5,390	3,117	0.59	No
97	Courtenay Pkwy	Plaza Ent	Urban Principal Arterial - Other	6	45	D	5,660	2,681	0.48	No
98	Plaza Ent	Plumosa St	Urban Principal Arterial - Other	6	45	D	5,660	2,619	0.47	No
99	Plumosa St	Mall Ent	Urban Principal Arterial - Other	6	45	D	5,660	2,521	0.45	No
100	Mall Ent	Skyes Creek Pkwy	Urban Principal Arterial - Other	6	45	D	5,660	1,914	0.34	No
149	Skyes Creek Pkwy	Newbound Harbor Dr	Urban Principal Arterial - Other	6	45	D	5,660	2,643	0.48	No
Skyes Creek Pkwy										
108	N Banana River Dr	Merritt Ave	Urban Major Collector	2	45	E	1,600	955	0.61	No
121	Merritt Ave	SR 520	Urban Major Collector	4	45	E	3,580	949	0.27	No
123	SR 520	Fortenberry Rd	Urban Major Collector	4	35	E	3,040	432	0.15	No
Merritt Ave										
103	Courtenay Pkwy	Plumosa St	Urban Major Collector	4	35	E	3,040	1,255	0.42	No
Courtenay Pkwy										
131	Needle Blvd	Merritt Ave	Urban Principal Arterial - Other	4	40	E	3,760	2,519	0.68	No
130	Merritt Ave	SR 520	Urban Principal Arterial - Other	4	40	E	3,760	2,193	0.59	No
139	SR 520	Magnolia Ave	Urban Minor Arterial	4	35	E	3,040	1,603	0.54	No
122	Magnolia Ave	Fortenberry Rd	Urban Minor Arterial	4	35	E	3,040	1,330	0.45	No
114	Cone Rd	Banana Blvd	Urban Minor Arterial	2	35	E	1,410	1,116	0.81	No
Tropical Trl										
147	Merritt Ave	SR 520	Urban Major Collector	2	25	E	1,410	792	0.57	No
126	Cone Rd	Plantation Rd	Urban Major Collector	2	35	E	1,130	691	0.62	No

Notes

1. Data obtained from Space Coast TPO 2020 Functional Classification, MAV, and LOS Table and 2020 FDOT Q/LOS Table

2. Data obtained from Space Coast TPO Transportation Data Management System.

3. Data obtained from Florida Traffic Online Peak Season Factor Category Report.

2.3 EXISTING INTERSECTION CONDITIONS

An intersection operational analysis was performed for existing conditions during the AM and PM peak hours using procedures outlined in the *Highway Capacity Manual, 6th Edition* with Synchro (v11) software. Intersection level of service (LOS) and maximum volume to capacity (v/c) ratios for the AM and PM peak hour existing conditions are provided in **Tables 3 and 4**. Synchro outputs are provided in **Appendix H**.

As shown in the tables below, all study area intersections currently operate with acceptable overall LOS and with v/c ratios less than one (1.0) under existing (2022) AM and PM peak hour conditions except for the following:

- SR 520 & Courtenay Parkway
  - Overall Intersection Delay – LOS E – AM and PM Peak Hour
    - From correspondence with County Staff, the adopted LOS standard for state roads is D.
  - Northbound Approach – LOS F – AM and PM Peak Hour
- SR 520 & Plumosa Street
  - Southbound Approach – LOS F – AM and PM Peak Hour
- SR 520 & Skyes Creek Parkway
  - Northbound Approach – LOS F – AM and PM Peak Hour
  - Northbound Right Movement – v/c > 1 – PM Peak Hour

Table 3: Existing Intersection Conditions (AM Peak Hour)

Existing Condition - 2022						
Intersection		Control Type	Approach	AM Peak Hour		
				Max Level of Service	Max V/C Ratio	Max V/C Movement
1	SR 520 & Courtenay Pkwy	Signalized	EB	D	0.89	EBL
			WB	E	0.72	WBL
			NB	F	0.92	NBT/R
			SB	E	0.84	SBL
			Overall	**E (59.5 s)**	**0.92**	**NBT/R**
2	SR 520 & Plumosa St	Signalized	EB	D	0.80	EBL
			WB	B	0.78	WBL
			NB	E	0.78	NBL
			SB	F	0.85	SBT/R
			Overall	**D (35.8 s)**	**0.85**	**SBT/R**
3	SR 520 & Skyes Creek Pkwy	Signalized	EB	C	0.74	EBL
			WB	C	0.55	WBL
			NB	F	0.85	NBR
			SB	E	0.83	SBL
			Overall	**D (40.4 s)**	**0.85**	**NBR**
4	Courtenay Pkwy & Fortenberry Rd	Signalized	EB	C	0.01	EBL/T/R
			WB	D	0.55	WBL/T
			NB	A	0.30	NBT
			SB	A	0.24	SBT/R
			Overall	**A (7.9 s)**	**0.55**	**WBL/T**
5	Fortenberry Rd & Plumosa St	Signalized	EB	C	0.61	EBT/R
			WB	C	0.31	WBL
			NB	B	0.19	NBR
			SB	B	0.26	SBT/R
			Overall	**B (16.6 s)**	**0.61**	**EBT/R**

Table 4: Existing Intersection Conditions (PM Peak Hour)

Existing Condition - 2022						
Intersection		Control Type	Approach	PM Peak Hour		
				Max Level of Service	Max V/C Ratio	Max V/C Movement
1	SR 520 & Courtenay Pkwy	Signalized	EB	D	0.90	EBL
			WB	E	0.75	WBL
			NB	F	0.92	NBT/R
			SB	E	0.88	SBL
			Overall	**E (64.3 s)**	**0.92**	**NBT/R**
2	SR 520 & Plumosa St	Signalized	EB	C	0.85	EBL
			WB	C	0.81	WBL
			NB	E	0.83	NBT/R
			SB	F	0.89	SBT/R
			Overall	**C (34.9 s)**	**0.89**	**SBT/R**
3	SR 520 & Skyes Creek Pkwy	Signalized	EB	D	0.82	EBL
			WB	D	0.76	WBL
			NB	F	1.11	NBR
			SB	E	0.85	SBL
			Overall	**D (53.0 s)**	**1.11**	**NBR**
4	Courtenay Pkwy & Fortenberry Rd	Signalized	EB	C	0.01	EBL/T/R
			WB	E	0.99	WBL/T
			NB	A	0.36	NBT
			SB	A	0.33	SBT/R
			Overall	**B (16.5 s)**	**0.99**	**WBL/T**
5	Fortenberry Rd & Plumosa St	Signalized	EB	C	0.70	EBT/R
			WB	C	0.46	WBL
			NB	B	0.27	NBR
			SB	B	0.23	SBT/R
			Overall	**B (19.4 s)**	**0.70**	**EBT/R**

3.0 DEVELOPMENT TRAFFIC

The Merritt Island Apartment development is proposed to consist of ±370 multifamily dwelling units. Buildout of the proposed development is anticipated in 2025. The latest industry standards were referenced to evaluate the amount of new external trips to be generated by the site at buildout. The adopted regional travel demand model was used to forecast the distribution of trips throughout the study area.

3.1 TRIP GENERATION

Trip generation for the proposed project was calculated per procedures published in the 11th Edition of the Institute of Transportation Engineers' (ITE) *Trip Generation Manual*. Land Use Code (LUC) 221 – Multifamily Housing (Mid-Rise) was used for the proposed development.

Relevant excerpts from the *Trip Generation Manual* are included in **Appendix I.**

Table 5 provides the Daily, AM peak hour, and PM peak hour trip generation summary for the project. The proposed site is anticipated to generate 1,718 daily trips, 151 AM peak hour trips (35 inbound and 116 outbound), and 145 PM peak hour trips (88 inbound and 57 outbound).

3.2 TRIP DISTRIBUTION

Projected traffic demand of project trips on study roadways was derived with use of the most recent adopted regional travel demand model. Land use data for the project was entered into a new traffic analysis zone (TAZ) within the latest Central Florida Regional Planning Model set and situated within the existing roadway network to appropriately represent project access. The model was used to assign trips for all trip purposes between allocated origin and destination pairs using project build-out year model data. Trip distribution for the project was extracted from the completed model assignment and reviewed for logic. The resulting model plot showing the percent of daily project distribution is provided in **Appendix J**.

Daily model project distribution was referenced to manually assign project distribution at the study area intersections and driveways in general accordance with the model output. **Figure 2** shows the intersection movement project distribution within the study area for use in forecasting project trips.

3.3 TRIP ASSIGNMENT

The project trip distribution percentages were used to assign anticipated project trips to the study area roadways and intersections. **Figure 3** shows the anticipated project trip assignment at the study area intersections during the AM and PM peak hours.

Table 5: Trip Generation

	Land Use	ITE LUC[1]	Size	Units	Trip Generation Equation	Daily				
						Total	In[1]		Out[1]	
Daily	Multifamily Housing (Mid-Rise)	221	**370**	DU	T = 4.77 * X - 46.46	1,718	50%	859	50%	859
	Total Generated Trips					**1,718**	**859**		**859**	
	Land Use	**ITE LUC[1]**	**Size**	**Units**	**Trip Generation Equation**	**AM Peak Hour**				
						Total	**In[1]**		**Out[1]**	
AM Peak Hour	Multifamily Housing (Mid-Rise)	221	**370**	DU	T = 0.44 * X - 11.61	151	23%	35	77%	116
	Total Generated Trips					**151**	**35**		**116**	
	Land Use	**ITE LUC[1]**	**Size**	**Units**	**Trip Generation Equation**	**PM Peak Hour**				
						Total	**In[1]**		**Out[1]**	
PM Peak Hour	Multifamily Housing (Mid-Rise)	221	**370**	DU	T = 0.39 * X + 0.34	145	61%	88	39%	57
	Total Generated Trips					**145**	**88**		**57**	

Note: [1] Vehicle trip rate and directional splits per ITE Trip Generation, 11th Edition

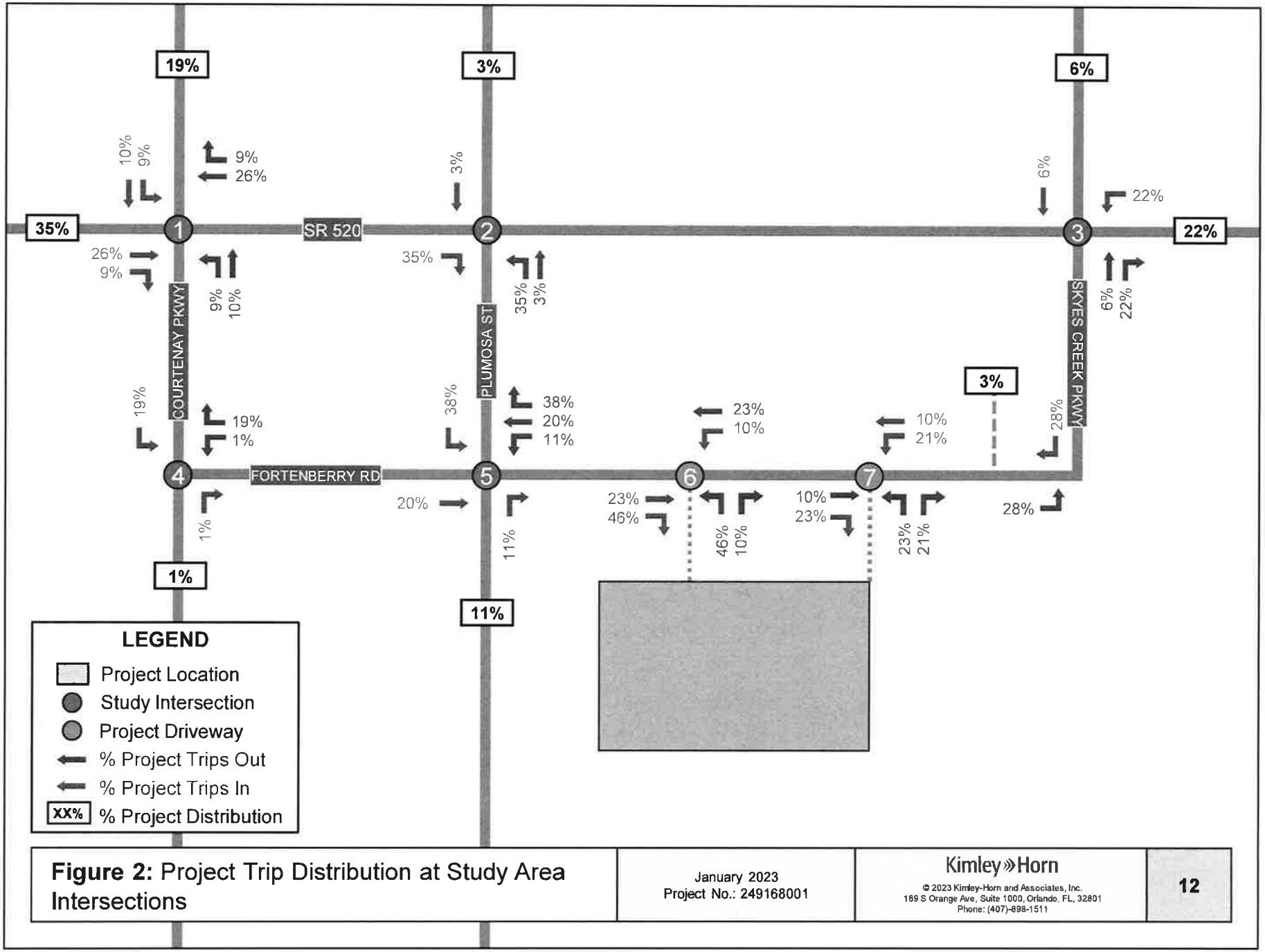


Figure 2: Project Trip Distribution at Study Area Intersections

January 2023
Project No.: 249168001

Kimley»Horn

© 2023 Kimley-Horn and Associates, Inc.
189 S Orange Ave, Suite 1000, Orlando, FL, 32801
Phone: (407)-898-1511

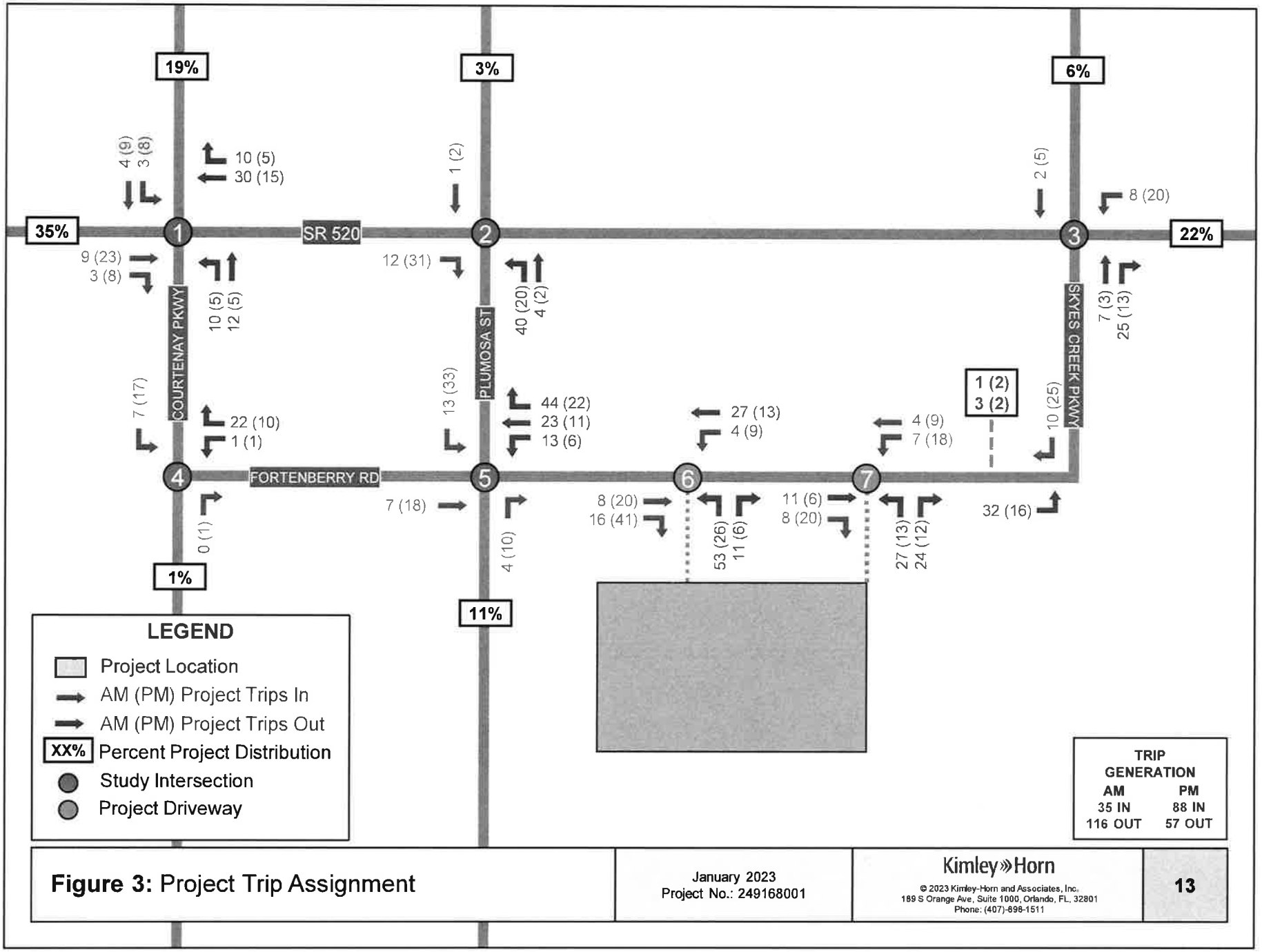


Figure 3: Project Trip Assignment

January 2023
Project No.: 249168001

Kimley»Horn

© 2023 Kimley-Horn and Associates, Inc.
189 S Orange Ave, Suite 1000, Orlando, FL, 32801
Phone: (407)-898-1511

4.0 BACKGROUND CONDITIONS ANALYSIS – YEAR 2025

4.1 BACKGROUND TRAFFIC

Traffic conditions were evaluated for year 2025 background conditions, without the impact of project trips on the roadway network. Per the approved TIA Methodology background volumes on study area roadway segments and intersections were derived by applying a 2% annual growth rate to existing traffic counts. Adjusted turning movement volume worksheets for all intersections can be found in **Appendix E.**

4.2 BACKGROUND ROADWAY SEGMENT ANALYSIS

A roadway segment analysis was performed within the study area to determine background Daily and PM peak hour conditions. The analysis was conducted by comparing the projected 2025 Background AADT and PM peak hour two-way segment volumes to the segment's Maximum Service Volumes (MSV).

The background roadway segment data is included in **Tables 6 and 7** for Daily and PM peak hour conditions, respectively. As shown in the tables, the analysis identifies no capacity deficiencies under background (2025) conditions.

Table 6: Background Roadway Segment Analysis (Daily)

Roadway			Roadway Attributes [1]					Daily - Background (2025)				
Link ID	From	To	Functional Classification [1]	Number of Lanes	Speed Limit	Adopted LOS [1]	Daily MSV [1]	Existing 2022 AADT	Growth Rate	2025 AADT[2]	V/C Ratio	Background Deficiency?
Fortenberry Rd												
119	Courtenay Pkwy	Plumosa St	Urban Major Collector	2	35	E	15,600	3,978	2%	4,221	0.27	No
154	Plumosa St	Skyes Creek Pkwy	Urban Major Collector	2	35	E	15,600	3,978	2%	4,221	0.27	No
Cone Rd												
117	Tropical Trl	Courtenay Pkwy	Urban Minor Collector	2	35	E	15,600	4,284	2%	4,546	0.29	No
115	Courtenay Pkwy	Plumosa St	Urban Minor Collector	2	35	E	15,600	4,896	2%	5,196	0.33	No
S Plumosa St												
106	Merritt Ave	SR 520	Urban Minor Collector	2	25	E	15,600	5,365	2%	5,694	0.36	No
120	SR 520	Fortenberry Rd	Urban Minor Collector	2	25	E	15,600	4,243	2%	4,503	0.29	No
116	Fortenberry Rd	Cone Rd	Urban Minor Collector	2	35	E	15,600	5,997	2%	6,364	0.41	No
SR 520												
101	Bridge	Tropical Trl	Urban Principal Arterial - Other	6	45	D	59,900	44,911	2%	47,659	0.80	No
148	Tropical Trl	Courtenay Pkwy	Urban Principal Arterial - Other	6	45	D	59,900	38,077	2%	40,407	0.67	No
97	Courtenay Pkwy	Plaza Ent	Urban Principal Arterial - Other	6	45	D	62,900	30,631	2%	32,505	0.52	No
98	Plaza Ent	Plumosa St	Urban Principal Arterial - Other	6	45	D	62,900	30,274	2%	32,127	0.51	No
99	Plumosa St	Mall Ent	Urban Principal Arterial - Other	6	45	D	62,900	28,744	2%	30,503	0.48	No
100	Mall Ent	Skyes Creek Pkwy	Urban Principal Arterial - Other	6	45	D	62,900	24,307	2%	25,794	0.41	No
149	Skyes Creek Pkwy	Newbound Harbor Dr	Urban Principal Arterial - Other	6	45	D	62,900	29,050	2%	30,828	0.49	No
Skyes Creek Pkwy												
108	N Banana River Dr	Merritt Ave	Urban Major Collector	2	45	E	17,700	9,874	2%	10,478	0.59	No
121	Merritt Ave	SR 520	Urban Major Collector	4	45	E	39,800	10,985	2%	11,658	0.29	No
123	SR 520	Fortenberry Rd	Urban Major Collector	4	35	E	33,800	4,131	2%	4,384	0.13	No
Merritt Ave												
103	Courtenay Pkwy	Plumosa St	Urban Major Collector	4	35	E	33,800	13,036	2%	13,833	0.41	No
Courtenay Pkwy												
131	Needle Blvd	Merritt Ave	Urban Principal Arterial - Other	4	40	E	41,790	32,773	2%	34,779	0.83	No
130	Merritt Ave	SR 520	Urban Principal Arterial - Other	4	40	E	41,790	26,673	2%	28,306	0.68	No
139	SR 520	Magnolia Ave	Urban Minor Arterial	4	35	E	33,800	18,217	2%	19,332	0.57	No
122	Magnolia Ave	Fortenberry Rd	Urban Minor Arterial	4	35	E	33,800	17,177	2%	18,228	0.54	No
114	Cone Rd	Banana Blvd	Urban Minor Arterial	2	35	E	15,600	11,189	2%	11,874	0.76	No
Tropical Trl												
147	Merritt Ave	SR 520	Urban Major Collector	2	25	E	15,600	8,262	2%	8,768	0.56	No
126	Cone Rd	Plantation Rd	Urban Major Collector	2	35	E	12,480	6,865	2%	7,285	0.58	No

Notes

1. Data obtained from Space Coast TPO 2020 Functional Classification, MAV, and LOS Table.

2. Backgorund (2025) AADT developed by applying the calculated growth rates to existing (2022) volumes.

Table 7: Background Roadway Segment Analysis (PM Peak Hour)

Roadway			Roadway Attributes					Peak Hour - Background (2025)				
Link ID	From	To	Functional Classification	Number of Lanes	Speed Limit	Adopted LOS[1]	Peak Hour Two-Way MSV[1]	Existing 2022 Peak Hour Two-Way Volume	Growth Rate	Background 2025 Peak Hour Two-Way Volume[2]	V/C Ratio	Background Deficiency?
Fortenberry Rd												
119	Courtenay Pkwy	Plumosa St	Urban Major Collector	2	35	E	1,410	399	2%	423	0.30	No
154	Plumosa St	Skyes Creek Pkwy	Urban Major Collector	2	35	E	1,410	508	2%	539	0.38	No
Cone Rd												
117	Tropical Trl	Courtenay Pkwy	Urban Minor Collector	2	35	E	1,410	431	2%	457	0.32	No
115	Courtenay Pkwy	Plumosa St	Urban Minor Collector	2	35	E	1,410	550	2%	584	0.41	No
Plumosa St												
106	Merritt Ave	SR 520	Urban Minor Collector	2	25	E	1,410	544	2%	577	0.41	No
120	SR 520	Fortenberry Rd	Urban Minor Collector	2	25	E	1,410	419	2%	445	0.32	No
116	Fortenberry Rd	Cone Rd	Urban Minor Collector	2	35	E	1,410	487	2%	517	0.37	No
SR 520												
101	Bridge	Tropical Trl	Urban Principal Arterial - Other	6	45	D	5,390	3,900	2%	4,139	0.77	No
148	Tropical Trl	Courtenay Pkwy	Urban Principal Arterial - Other	6	45	D	5,390	3,117	2%	3,308	0.61	No
97	Courtenay Pkwy	Plaza Ent	Urban Principal Arterial - Other	6	45	D	5,660	2,681	2%	2,845	0.50	No
98	Plaza Ent	Plumosa St	Urban Principal Arterial - Other	6	45	D	5,660	2,619	2%	2,779	0.49	No
99	Plumosa St	Mall Ent	Urban Principal Arterial - Other	6	45	D	5,660	2,521	2%	2,675	0.47	No
100	Mall Ent	Skyes Creek Pkwy	Urban Principal Arterial - Other	6	45	D	5,660	1,914	2%	2,031	0.36	No
149	Skyes Creek Pkwy	Newbound Harbor Dr	Urban Principal Arterial - Other	6	45	D	5,660	2,643	2%	2,805	0.50	No
Skyes Creek Pkwy												
108	N Banana River Dr	Merritt Ave	Urban Major Collector	2	45	E	1,600	955	2%	1,013	0.63	No
121	Merritt Ave	SR 520	Urban Major Collector	4	45	E	3,580	949	2%	1,007	0.28	No
123	SR 520	Fortenberry Rd	Urban Major Collector	4	35	E	3,040	432	2%	458	0.15	No
Merritt Ave												
103	Courtenay Pkwy	Plumosa St	Urban Major Collector	4	35	E	3,040	1,255	2%	1,332	0.44	No
Courtenay Pkwy												
131	Needle Blvd	Merritt Ave	Urban Principal Arterial - Other	4	40	E	3,760	2,519	2%	2,673	0.71	No
130	Merritt Ave	SR 520	Urban Principal Arterial - Other	4	40	E	3,760	2,193	2%	2,327	0.62	No
139	SR 520	Magnolia Ave	Urban Minor Arterial	4	35	E	3,040	1,603	2%	1,701	0.56	No
122	Magnolia Ave	Fortenberry Rd	Urban Minor Arterial	4	35	E	3,040	1,330	2%	1,411	0.46	No
114	Cone Rd	Banana Blvd	Urban Minor Arterial	2	35	E	1,410	1,116	2%	1,184	0.84	No
Tropical Trl												
147	Merritt Ave	SR 520	Urban Major Collector	2	25	E	1,410	792	2%	840	0.60	No
126	Cone Rd	Plantation Rd	Urban Major Collector	2	35	E	1,130	691	2%	733	0.65	No

Notes

1. Data obtained from Space Coast TPO 2020 Functional Classification, MAV, and LOS Table and 2020 FDOT Q/LOS Table

2. Backgorund (2025) Peak Hour Two-Way Volume developed by applying the calculated growth rates.

4.3 BACKGROUND INTERSECTION ANALYSIS

An intersection operational analysis was performed for background conditions during the AM and PM peak hours using procedures outlined in the *Highway Capacity Manual, 6th Edition* with Synchro (v11) software. Intersection level of service (LOS) and maximum volume to capacity (v/c) ratios for the AM and PM peak hour background conditions are provided in **Tables 8 and 9**. Synchro outputs are provided in **Appendix H**.

As shown in the tables below, all study area intersections are expected to operate at an acceptable LOS overall and v/c ratio in the background (2025) AM and PM peak hour with the exception of the existing intersection deficiencies and the following background deficiencies:

- SR 520 & Courtenay Parkway
  - Westbound Approach – LOS F – PM Peak Hour
  - Westbound Left/Through Movement – v/c > 1 – PM Peak Hour

To mitigate the capacity deficiencies (Northbound Right at SR 520 & Skyes Creek Parkway and Westbound Left/Through Movement at SR 520 & Courtenay Parkway) during the PM peak hour, minor signal timing adjustments are recommended. **Table 10** provides the improved intersections' LOS and maximum volume to capacity (v/c) ratios for the PM peak hour. With the recommended minor signal timings adjustments, all study area intersections are anticipated to operate within their capacity under both AM and PM peak hour conditions.

While considering improvements at the intersection of SR 520 & Courtenay Parkway, it was noted that shortening the cycle length would improve the overall delay and level of service of the intersection. This signal is part of a coordinated system, so the cycle length cannot be changed without impacting the other intersections in the coordinated system. Therefore, it is recommended that the coordinated traffic signal system along SR 520 be reevaluated as part of the background improvements. If it is determined that shortening the cycle length at SR 520 & Courtenay Parkway is beneficial for the entire corridor, this improvement would improve the overall delay at this intersection to LOS D, as shown in **Appendix H**. This improvement was not implemented in the background with improvement scenario as the extent of the coordinated system is not within the study are of this analysis.

Table 8: Background Intersection Conditions (AM Peak Hour)

Background Condition - 2025						
Intersection		Control Type	Approach	AM Peak Hour		
				Max Level of Service	Max V/C Ratio	Max V/C Movement
1	SR 520 & Courtenay Pkwy	Signalized	EB	D	0.89	EBL
			WB	E	0.73	WBL
			NB	F	0.95	NBT/R
			SB	E	0.85	SBL
			Overall	**E (60.6 s)**	**0.95**	**NBT/R**
2	SR 520 & Plumosa St	Signalized	EB	C	0.81	EBL
			WB	B	0.79	WBL
			NB	E	0.78	NBL
			SB	F	0.86	SBT/R
			Overall	**C (32.2 s)**	**0.86**	**SBT/R**
3	SR 520 & Skyes Creek Pkwy	Signalized	EB	C	0.75	EBL
			WB	C	0.58	WBL
			NB	F	0.86	NBR
			SB	E	0.84	SBL
			Overall	**D (40.7 s)**	**0.86**	**NBR**
4	Courtenay Pkwy & Fortenberry Rd	Signalized	EB	C	0.01	EBL/T/R
			WB	D	0.57	WBL/T
			NB	A	0.32	NBT
			SB	A	0.25	SBT/R
			Overall	**A (8.0 s)**	**0.57**	**WBL/T**
5	Fortenberry Rd & Plumosa St	Signalized	EB	C	0.65	EBT/R
			WB	C	0.34	WBL
			NB	B	0.18	NBR
			SB	B	0.28	SBT/R
			Overall	**B (16.9 s)**	**0.65**	**EBT/R**

Table 9: Background Intersection Conditions (PM Peak Hour)

Background Condition - 2025						
Intersection		Control Type	Approach	PM Peak Hour		
				Max Level of Service	Max V/C Ratio	Max V/C Movement
1	SR 520 & Courtenay Pkwy	Signalized	EB	D	0.91	EBL
			WB	E	0.76	WBL
			NB	F	0.94	NBL
			SB	E	0.90	SBL
			Overall	**E (66.6 s)**	**0.94**	**NBL**
2	SR 520 & Plumosa St	Signalized	EB	C	0.86	EBL
			WB	C	0.82	WBL
			NB	E	0.83	NBL
			SB	F	0.90	SBT/R
			Overall	**D (36.5 s)**	**0.90**	**SBT/R**
3	SR 520 & Skyes Creek Pkwy	Signalized	EB	D	0.83	EBL
			WB	D	0.77	WBL
			NB	F	1.19	NBR
			SB	E	0.86	SBL
			Overall	**D (54.9 s)**	**1.19**	**NBR**
4	Courtenay Pkwy & Fortenberry Rd	Signalized	EB	C	0.02	EBL/T/R
			WB	F	1.05	WBL/T
			NB	A	0.38	NBT
			SB	A	0.35	SBT/R
			Overall	**B (18.2 s)**	**1.05**	**WBL/T**
5	Fortenberry Rd & Plumosa St	Signalized	EB	C	0.71	EBT/R
			WB	C	0.48	WBL
			NB	B	0.29	NBR
			SB	B	0.24	SBT/R
			Overall	**B (19.7 s)**	**0.71**	**EBT/R**

Table 10: Background with Improvement Intersection Conditions (PM Peak Hour)

Background with Improvements Conditions - 2025							
Intersection		Control Type	Improvements	Approach	PM Peak Hour		
					Max Level of Service	Max V/C Ratio	Max V/C Movement
3	SR 520 & Skyes Creek Pkwy	Signalized	Minor Signal Timing Improvements	EB	B	0.84	EBL
				WB	D	0.77	WBL
				NB	F	0.92	NBR
				SB	E	0.88	SBL
				Overall	**D (42.6 s)**	**0.92**	**NBR**
4	Courtenay Pkwy & Fortenberry Rd	Signalized	Minor Signal Timing Improvements	EB	C	0.01	EBL/T/R
				WB	D	0.87	WBL/T
				NB	B	0.40	NBT
				SB	A	0.36	SBT/R
				Overall	**B (14.0 s)**	**0.87**	**WBL/T**

5.0 BUILDOUT CONDITIONS ANALYSIS – YEAR 2025

Buildout volumes were developed by adding anticipated project trips to background volumes. A determination of the impact of project traffic on the roadway network was made, including LOS conditions for the intersections and roadway segments within the study area. Turning movement volume worksheets for all intersections and driveways are provided in **Appendix E.**

Figures 4 and 5 illustrate turning movement buildout volumes at the study intersections for the AM and PM peak hour, respectively.

5.1 BUILDOUT ROADWAY SEGMENT ANALYSIS

A roadway segment analysis was performed within the study area to determine buildout Daily and PM peak hour two-way conditions. The Daily analysis was conducted by comparing the projected 2025 buildout AADT and PM peak hour two-way volume to the segment's Maximum Service Volumes (MSV).

The buildout roadway segment data is included in **Tables 11 and 12** for Daily and PM peak hour conditions, respectively. As shown in the tables, the analysis identifies no roadway capacity deficiencies under buildout (2025) Daily or PM peak hour two-way conditions. No new roadway deficiencies are anticipated due to project impact.

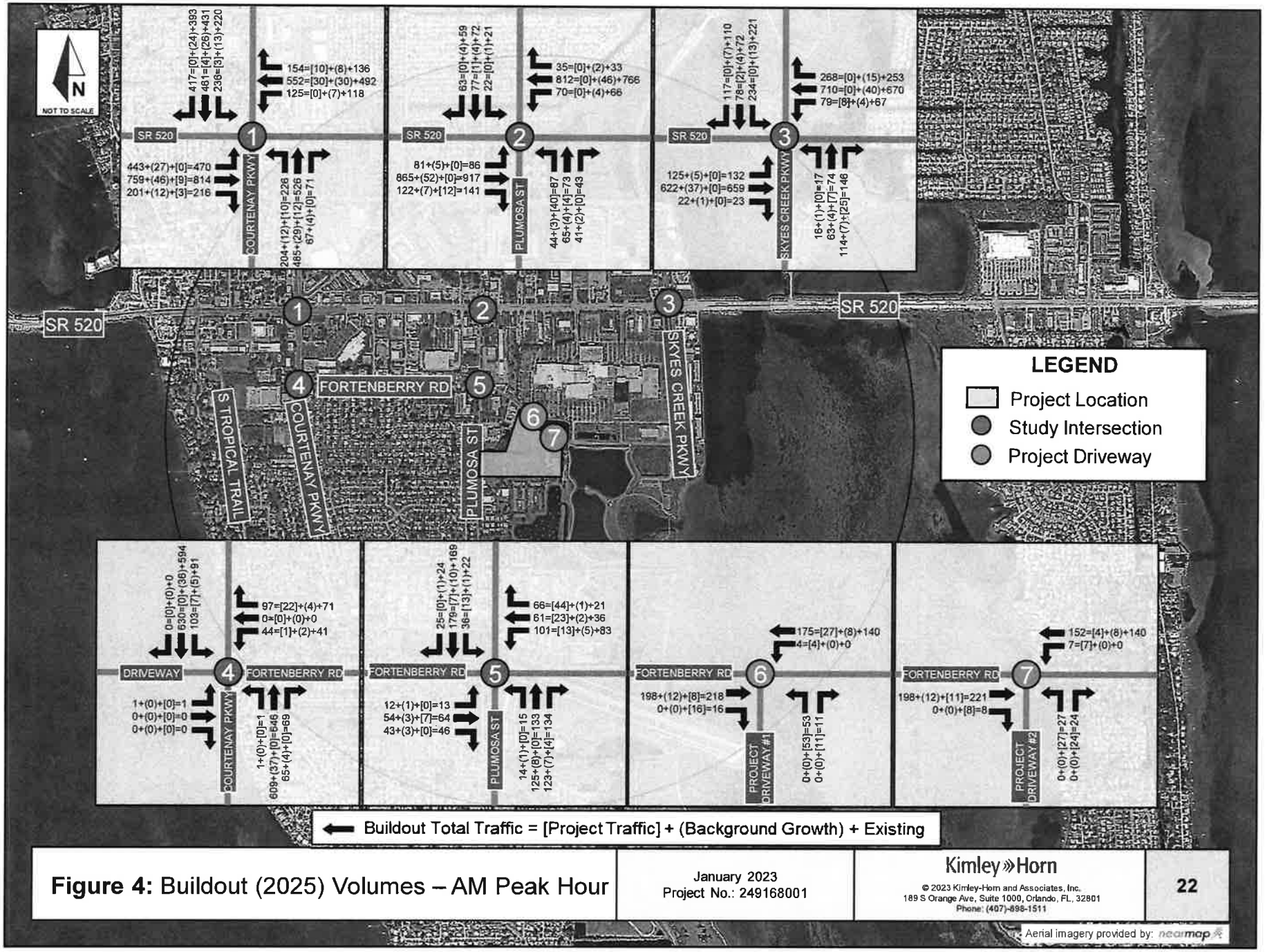


Figure 4: Buildout (2025) Volumes – AM Peak Hour

January 2023
Project No.: 249168001

Kimley»Horn

© 2023 Kimley-Horn and Associates, Inc.
189 S Orange Ave, Suite 1000, Orlando, FL, 32801
Phone: (407)-898-1511

Aerial imagery provided by: nearmap

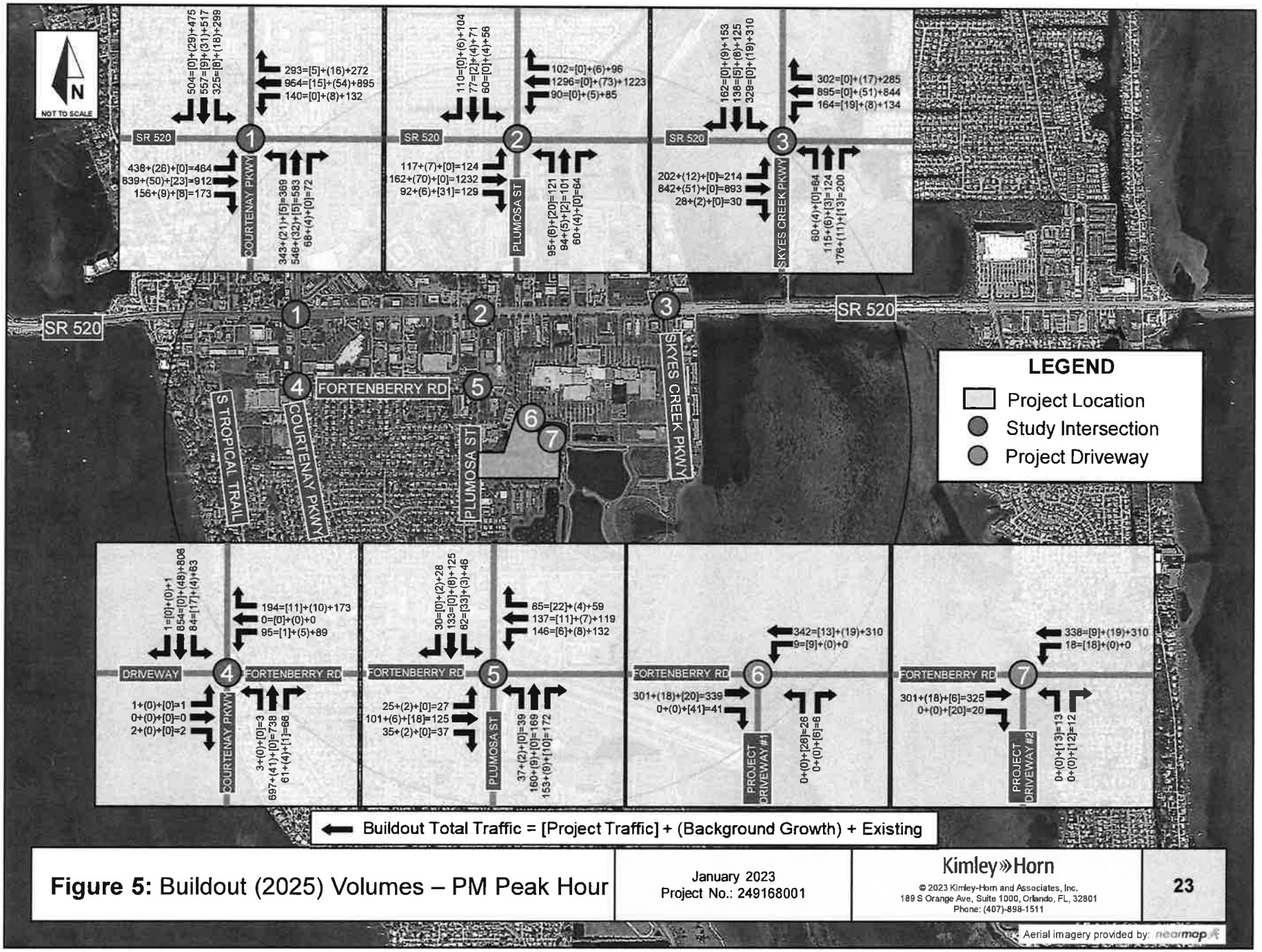


Figure 5: Buildout (2025) Volumes – PM Peak Hour

January 2023
Project No.: 249168001

Kimley»Horn

© 2023 Kimley-Horn and Associates, Inc.
189 S Orange Ave, Suite 1000, Orlando, FL, 32801
Phone: (407)-898-1511

Aerial imagery provided by: nearmap

Table 11: Buildout Roadway Segment Analysis (Daily)

Roadway			Roadway Attributes [1]					Daily - Buildout (2025)					
Link ID	From	To	Functional Classification	Number of Lanes	Speed Limit	Adopted LOS [1]	Daily MSV [1]	Background 2025 AADT	Project Trips		Buildout 2025 AADT [3]	V/C Ratio	Buildout Deficiency?
									% Assign [2]	Project Trips			
Fortenberry Rd													
119	Courtenay Pkwy	Plumosa St	Urban Major Collector	2	35	E	15,600	4,221	20%	344	4,565	0.29	No
154	Plumosa St	Skyes Creek Pkwy	Urban Major Collector	2	35	E	15,600	4,221	69%	1,185	5,406	0.35	No
Cone Rd													
117	Tropical Trl	Courtenay Pkwy	Urban Minor Collector	2	35	E	15,600	4,546	2%	34	4,580	0.29	No
115	Courtenay Pkwy	Plumosa St	Urban Minor Collector	2	35	E	15,600	5,196	10%	172	5,368	0.34	No
S Plumosa St													
106	Merritt Ave	SR 520	Urban Minor Collector	2	25	E	15,600	5,694	3%	52	5,746	0.37	No
120	SR 520	Fortenberry Rd	Urban Minor Collector	2	25	E	15,600	4,503	39%	670	5,173	0.33	No
116	Fortenberry Rd	Cone Rd	Urban Minor Collector	2	35	E	15,600	6,364	11%	189	6,553	0.42	No
SR 520													
101	Bridge	Tropical Trl	Urban Principal Arterial - Other	6	45	D	59,900	47,659	34%	584	48,243	0.81	No
148	Tropical Trl	Courtenay Pkwy	Urban Principal Arterial - Other	6	45	D	59,900	40,407	35%	601	41,008	0.68	No
97	Courtenay Pkwy	Plaza Ent	Urban Principal Arterial - Other	6	45	D	62,900	32,505	35%	601	33,106	0.53	No
98	Plaza Ent	Plumosa St	Urban Principal Arterial - Other	6	45	D	62,900	32,127	35%	601	32,728	0.52	No
99	Plumosa St	Mall Ent	Urban Principal Arterial - Other	6	45	D	62,900	30,503	1%	17	30,520	0.49	No
100	Mall Ent	Skyes Creek Pkwy	Urban Principal Arterial - Other	6	45	D	62,900	25,794	1%	17	25,811	0.41	No
149	Skyes Creek Pkwy	Newbound Harbor Dr	Urban Principal Arterial - Other	6	45	D	62,900	30,828	22%	378	31,206	0.50	No
Skyes Creek Pkwy													
108	N Banana River Dr	Merritt Ave	Urban Major Collector	2	45	E	17,700	10,478	6%	103	10,581	0.60	No
121	Merritt Ave	SR 520	Urban Major Collector	4	45	E	39,800	11,658	6%	103	11,761	0.30	No
123	SR 520	Fortenberry Rd	Urban Major Collector	4	35	E	33,800	4,384	28%	481	4,865	0.14	No
Merritt Ave													
103	Courtenay Pkwy	Plumosa St	Urban Major Collector	4	35	E	33,800	13,833	2%	34	13,867	0.41	No
Courtenay Pkwy													
131	Needle Blvd	Merritt Ave	Urban Principal Arterial - Other	4	40	E	41,790	34,779	18%	309	35,088	0.84	No
130	Merritt Ave	SR 520	Urban Principal Arterial - Other	4	40	E	41,790	28,306	19%	326	28,632	0.69	No
139	SR 520	Magnolia Ave	Urban Minor Arterial	4	35	E	33,800	19,332	19%	326	19,658	0.58	No
122	Magnolia Ave	Fortenberry Rd	Urban Minor Arterial	4	35	E	33,800	18,228	19%	326	18,554	0.55	No
114	Cone Rd	Banana Blvd	Urban Minor Arterial	2	35	E	15,600	11,874	1%	17	11,891	0.76	No
Tropical Trl													
147	Merritt Ave	SR 520	Urban Major Collector	2	25	E	15,600	8,768	1%	17	8,785	0.56	No
126	Cone Rd	Plantation Rd	Urban Major Collector	2	35	E	12,480	7,285	2%	34	7,319	0.59	No

Notes

1. Data obtained from Space Coast TPO 2020 Functional Classification, MAV, and LOS Table.

2. Percent assigned as the highest percent across the segment.

3. Buildout (2025) AADT developed by adding project trips to background (2025) volumes.

Table 12: Buildout Roadway Segment Analysis (PM Peak Hour)

Roadway			Roadway Attributes[1]					Peak Hour - Buildout (2025)					
									Project Trips				
Link ID	From	To	Functional Classification	Number of Lanes	Speed Limit	Adopted LOS[1]	Peak Hour Two-Way MSV[1]	Background 2025 Peak Hour Two-Way Volume	% Assign[2]	Project Trips	Buildout 2025 Peak Hour Two-way Volume[3]	V/C Ratio	Buildout Deficiency?
Fortenberry Rd													
119	Courtenay Pkwy	Plumosa St	Urban Major Collector	2	35	E	1,410	423	20%	29	452	0.32	No
154	Plumosa St	Skyes Creek Pkwy	Urban Major Collector	2	35	E	1,410	539	69%	100	639	0.45	No
Cone Rd													
117	Tropical Trl	Courtenay Pkwy	Urban Minor Collector	2	35	E	1,410	457	2%	3	460	0.33	No
115	Courtenay Pkwy	Plumosa St	Urban Minor Collector	2	35	E	1,410	584	10%	15	599	0.42	No
Plumosa St													
106	Merritt Ave	SR 520	Urban Minor Collector	2	25	E	1,410	577	3%	4	581	0.41	No
120	SR 520	Fortenberry Rd	Urban Minor Collector	2	25	E	1,410	445	39%	57	502	0.36	No
116	Fortenberry Rd	Cone Rd	Urban Minor Collector	2	35	E	1,410	517	11%	16	533	0.38	No
SR 520													
101	Bridge	Tropical Trl	Urban Principal Arterial - Other	6	45	D	5,390	4,139	34%	49	4,188	0.78	No
148	Tropical Trl	Courtenay Pkwy	Urban Principal Arterial - Other	6	45	D	5,390	3,308	35%	51	3,359	0.62	No
97	Courtenay Pkwy	Plaza Ent	Urban Principal Arterial - Other	6	45	D	5,660	2,845	35%	51	2,896	0.51	No
98	Plaza Ent	Plumosa St	Urban Principal Arterial - Other	6	45	D	5,660	2,779	35%	51	2,830	0.50	No
99	Plumosa St	Mall Ent	Urban Principal Arterial - Other	6	45	D	5,660	2,675	1%	1	2,676	0.47	No
100	Mall Ent	Skyes Creek Pkwy	Urban Principal Arterial - Other	6	45	D	5,660	2,031	1%	1	2,032	0.36	No
149	Skyes Creek Pkwy	Newbound Harbor Dr	Urban Principal Arterial - Other	6	45	D	5,660	2,805	22%	32	2,837	0.50	No
Skyes Creek Pkwy													
108	N Banana River Dr	Merritt Ave	Urban Major Collector	2	45	E	1,600	1,013	6%	9	1,022	0.64	No
121	Merritt Ave	SR 520	Urban Major Collector	4	45	E	3,580	1,007	6%	9	1,016	0.28	No
123	SR 520	Fortenberry Rd	Urban Major Collector	4	35	E	3,040	458	28%	41	499	0.16	No
Merritt Ave													
103	Courtenay Pkwy	Plumosa St	Urban Major Collector	4	35	E	3,040	1,332	2%	3	1,335	0.44	No
Courtenay Pkwy													
131	Needle Blvd	Merritt Ave	Urban Principal Arterial - Other	4	40	E	3,760	2,673	18%	26	2,699	0.72	No
130	Merritt Ave	SR 520	Urban Principal Arterial - Other	4	40	E	3,760	2,327	19%	28	2,355	0.63	No
139	SR 520	Magnolia Ave	Urban Minor Arterial	4	35	E	3,040	1,701	19%	28	1,729	0.57	No
122	Magnolia Ave	Fortenberry Rd	Urban Minor Arterial	4	35	E	3,040	1,411	19%	28	1,439	0.47	No
114	Cone Rd	Banana Blvd	Urban Minor Arterial	2	35	E	1,410	1,184	1%	1	1,185	0.84	No
Tropical Trl													
147	Merritt Ave	SR 520	Urban Major Collector	2	25	E	1,410	840	1%	1	841	0.60	No
126	Cone Rd	Plantation Rd	Urban Major Collector	2	35	E	1,130	733	2%	3	736	0.65	No

Notes

1. Data obtained from Space Coast TPO 2020 Functional Classification, MAV, and LOS Table and 2020 FDOT Q/LOS Table

2. Percent assigned as the highest percent across the segment.

3. Buildout (2025) Peak Hour Two-Way Volume developed by adding project trips to background (2025) volumes.

5.2 BUILDOUT INTERSECTION ANALYSIS

An intersection operational analysis was performed for Year 2025 buildout conditions during the AM and PM peak hours using procedures outlined in the *Highway Capacity Manual, 6th Edition* with Synchro (v11) software. Intersection level of service (LOS), delay, and maximum volume to capacity (v/c) ratios for the AM and PM peak hour buildout conditions are provided in **Tables 13 and 14**. Synchro outputs are provided in **Appendix H**.

As shown in the tables below, all study area intersections operate with conditions similar to background and background with improvement conditions. Under buildout (2025) conditions, all study area intersections are anticipated to operate within their capacity under both AM and PM peak hour conditions. To improve the delay drivers experience at the signalized intersections along SR 520 in the study area, it is recommended that the coordinated traffic signal system along SR 520 is retimed as part of the background improvements. No new deficiencies were identified as a result of the proposed development.

Table 13: Buildout Intersection Conditions (AM Peak Hour)

Buildout Condition - 2025						
Intersection		Control Type	Approach	AM Peak Hour		
				Max Level of Service	Max V/C Ratio	Max V/C Movement
1	SR 520 & Courtenay Pkwy	Signalized	EB	D	0.89	EBL
			WB	E	0.73	WBL
			NB	F	0.97	NBT/R
			SB	E	0.85	SBR
			Overall	**E (61.6 s)**	**0.97**	**NBT/R**
2	SR 520 & Plumosa St	Signalized	EB	C	0.81	EBL
			WB	C	0.79	WBL
			NB	E	0.82	NBL
			SB	F	0.87	SBT/R
			Overall	**C (34.8 s)**	**0.87**	**SBT/R**
3	SR 520 & Skyes Creek Pkwy	Signalized	EB	C	0.75	EBL
			WB	C	0.64	WBL
			NB	F	0.90	NBR
			SB	E	0.84	SBL
			Overall	**D (42.0 s)**	**0.90**	**NBR**
4	Courtenay Pkwy & Fortenberry Rd	Signalized	EB	C	0.01	EBL/T/R
			WB	D	0.72	WBL/T
			NB	A	0.32	NBT
			SB	A	0.25	SBT/R
			Overall	**A (8.9 s)**	**0.72**	**WBL/T**
5	Fortenberry Rd & Plumosa St	Signalized	EB	C	0.67	EBT/R
			WB	C	0.37	WBL
			NB	B	0.22	NBR
			SB	B	0.28	SBT/R
			Overall	**B (17.8 s)**	**0.67**	**EBT/R**
6	Project Driveway 1 & Fortenberry Rd	Unsignalized (TWSC)	EB(L)	-	-	-
			WB(L)	A	0.00	WBL
			NB	B	0.12	NBL/R
			SB	-	-	-
			Overall	**-**	**0.12**	**NBL/R**
7	Project Driveway 2 & Fortenberry Rd	Unsignalized (TWSC)	EB(L)	-	-	-
			WB(L)	A	0.01	WBL
			NB	B	0.08	NBL/R
			SB	-	-	-
			Overall	**-**	**0.08**	**NBL/R**

Table 14: Buildout Intersection Conditions (PM Peak Hour)

Buildout Condition - 2025						
Intersection		Control Type	Approach	PM Peak Hour		
				Max Level of Service	Max V/C Ratio	Max V/C Movement
1	SR 520 & Courtenay Pkwy	Signalized	EB	D	0.91	EBL
			WB	E	0.76	WBL/R
			NB	F	0.95	NBL
			SB	E	0.92	SBL
			Overall	**E (67.3 s)**	**0.95**	**NBL**
2	SR 520 & Plumosa St	Signalized	EB	C	0.86	EBL
			WB	C	0.82	WBL
			NB	E	0.85	NBL
			SB	F	0.90	SBT/R
			Overall	**D (38.0 s)**	**0.90**	**SBT/R**
3	SR 520 & Skyes Creek Pkwy	Signalized	EB	D	0.83	EBL
			WB	D	0.79	WBL
			NB	F	0.97	NBR
			SB	E	0.88	SBL
			Overall	**D (51.3 s)**	**0.97**	**NBR**
4	Courtenay Pkwy & Fortenberry Rd	Signalized	EB	C	0.01	EBL/T/R
			WB	E	0.91	WBL/T
			NB	B	0.40	NBT
			SB	A	0.36	SBT/R
			Overall	**B (15.2 s)**	**0.91**	**WBL/T**
5	Fortenberry Rd & Plumosa St	Signalized	EB	C	0.73	EBT/R
			WB	C	0.50	WBL
			NB	B	0.31	NBR
			SB	B	0.25	SBT/R
			Overall	**C (20.4 s)**	**0.73**	**EBT/R**
6	Project Driveway 1 & Fortenberry Rd	Unsignalized (TWSC)	EB(L)	-	-	-
			WB(L)	A	0.01	WBL
			NB	C	0.09	NBL/R
			SB	-	-	-
			Overall	**-**	**0.09**	**NBL/R**
7	Project Driveway 2 & Fortenberry Rd	Unsignalized (TWSC)	EB(L)	-	-	-
			WB(L)	A	0.02	WBL
			NB	B	0.06	NBL/R
			SB	-	-	-
			Overall	**-**	**0.06**	**NBL/R**

5.3 BUILDOUT DRIVEWAY INGRESS TURN LANE ANALYSIS

The need for exclusive ingress left-turn and right-turn lanes at the proposed project driveways on Fortenberry Road were evaluated using the National Cooperative Highway Research Program (NCHRP) Report 457 thresholds.

The need for exclusive right-turn lanes at the full access project driveways on Fortenberry Road was determined by comparing the right turning volumes with the approach volume. Based on the project volumes shown in **Figures 4 and 5** and thresholds specified by the NCHRP Report 457, right-turn lanes are not warranted at either of the project driveways on Fortenberry Road.

The need for exclusive left-turn lanes at the full access project driveways on Fortenberry Road was determined by comparing the percent left turning volume with the advancing and opposing volumes. Based on the project volumes shown in **Figures 4 and 5** and thresholds specified by the NCHRP Report 457, left-turn lanes are not warranted at either of the project driveways on Fortenberry Road.

NCHRP outputs are provided in **Appendix K**.

6.0 CONCLUSION

This traffic impact analysis was performed to analyze and document the transportation impacts associated with the buildout of the proposed Merritt Island Apartments development located south of Fortenberry Road, west of Harbor Woods Boulevard, and north of Lands Way in Brevard County. The development, proposed for buildout in 2025, will consist of ±370 multifamily dwelling units. Access to the site will be provided via one (1) full access driveway on Fortenberry Road and one (1) full access driveway off Harbor Woods Boulevard.

The proposed development is anticipated to generate 1,718 daily trips, 151 AM peak hour trips (35 inbound and 116 outbound), and 145 PM peak hour trips (88 inbound and 57 outbound) based on data from the ITE *Trip Generation Manual*. Project trips were distributed onto the surrounding roadway network using the adopted regional travel demand model and manual assignment at the study area intersections.

A roadway segment capacity analysis was performed for the study area roadway segments for existing, background, and buildout conditions. The Daily and PM peak hour two-way analysis identified no roadway segment capacity deficiencies within the study area.

An operational analysis for existing and future conditions was performed at the study area intersections. Under buildout conditions, all study area intersections are anticipated to operate within their capacity under both AM and PM peak hour conditions. To improve the delay drivers experience at the signalized intersections along SR 520 in the study area, it is recommended that the coordinated traffic signal system along SR 520 be reevaluated as part of the background improvements. No new deficiencies were identified as a result of the proposed development.

The need for exclusive ingress right-turn lanes and left-turn lanes at the full access project driveways on Fortenberry Road was evaluated based on the National Cooperative Highway Research Program (NCHRP) Report 457 thresholds. No ingress turn lanes are warranted at the project driveways on Fortenberry Road.

APPENDIX A
Methodology Statement

MEMORANDUM

From: James M. Taylor, P.E.
Kimley-Horn and Associates, Inc.

Date: October 3, 2022

Subject: Traffic Impact Analysis (TIA) Methodology
Merritt Island Apartments

Purpose
The following is a Traffic Impact Analysis (TIA) methodology outline for the above referenced project. The forthcoming TIA will generally conform to the methodology herein and the policies and guidelines of Brevard County.

Project Description
Merritt Island Apartments is a proposed multifamily development located on the south side of Fortenberry Road, west of Harbor Woods Boulevard, and north of Landings Way in Brevard County. A portion of the project property is undeveloped, and the eastern part is an abandoned active recreation facility. The proposed development on the 15.26-acre property is to consist of ±368 multifamily dwelling units. Buildout of the proposed development is anticipated in 2025.

Access to the site will be provided via two (2) full access driveways on Fortenberry Road, shown in the conceptual site plan provided in **Attachment A**.

Study Area
As stated in the Brevard County *Guidelines on Minimum Requirements for Traffic Impact Analyses* (2022), the study area shall be preliminarily established with a radius of 0.5-miles per 100 peak hour trips. As determined in the Trip Generation portion of this memorandum, the proposed development is anticipated to generate 150 peak hour trips; therefore, the preliminary study area will have a radius of 1.0 miles.

All segments within the 1.0-mile radius will be included in the study area. In addition, segments outside of the 1.0-mile radius that are significantly impacted by project trips will be included in the study area as well.

Initially, a significance test was performed for all roadway segments within the 1.0-mile area of influence. Significance was calculated by dividing the portion of total project trips assigned to each roadway segment by the corresponding maximum available volume (MAV) for that segment. A 5.0% significance test was performed for all concurrent

Kimley»Horn

roadway segments and a 1.0% significance test for all roadway segments with concurrency failure within the 1.0-mile study area. Results of this analysis show that no segments inside the 1.0-mile study area are significantly impacted. Therefore, no additional segments were analyzed or included in the study area. **Table 1** summarizes the roadway segment significance test and the study area determination.

The major intersections where project trips are anticipated to complete turning movements within the 1.0-mile study area will be included.

From this analysis, the study area roadway segments and intersections are listed below and displayed on **Figure 1**:

Study Area Roadway Segments

- Fortenberry Rd from S Courtenay Pkwy to S Plumosa St
- Fortenberry Rd from S Plumosa St to S Skyes Creek Pkwy
- Cone Rd from S Tropical Trl to S Courtenay Pkwy
- Cone Rd from S Courtenay Pkwy to S Plumosa St
- N Plumosa St from Merritt Ave to SR 520
- S Plumosa St from SR 520 to Fortenberry Rd
- S Plumosa St from Fortenberry Rd to Cone Rd
- SR 520 from Hubert Humphrey Bridge to Tropical Trl
- SR 520 from Tropical Trl to Courtenay Pkwy
- SR 520 from Courtenay Pkwy to Plaza Entry
- SR 520 from Plaza Entry to Plumosa St
- SR 520 from Plumosa St to Merritt Sq (Mall Entry)
- SR 520 from Merritt Sq (Mall Entry) to Skyes Creek Pkwy
- SR 520 from Skyes Creek Pkwy to Newfound Harbor Dr
- N Skyes Creek Pkwy from N Banana River Dr to Merritt Ave
- N Skyes Creek Pkwy from Merritt Ave to SR 520
- S Skyes Creek Pkwy from SR 520 to Fortenberry Rd
- Merritt Ave from N Tropical Trl to N Courtenay Pkwy
- Merritt Ave from N Courtenay Pkwy to N Plumosa St
- Merritt Ave from N Plumosa St to N Skyes Creek Pkwy
- N Courtenay Pkwy from Needle Blvd to Merritt Ave
- N Courtenay Pkwy from Merritt Ave to SR 520
- S Courtenay Pkwy from SR 520 to Magnolia Ave
- S Courtenay Pkwy from Magnolia Ave to Fortenberry Rd
- S Courtenay Pkwy from Fortenberry Rd to Cone Rd
- S Courtenay Pkwy from Cone Rd to Banana Blvd
- N Tropical Trl from Merritt Ave to SR 520
- S Tropical Trl from SR 520 to Cone Rd

Kimley»Horn

- S Tropical Trl from Cone Rd to Plantation Rd

Study Area Intersections

- SR 520 & Courtenay Pkwy
- SR 520 & Plumosa St
- SR 520 & Skyes Creek Pkwy
- S Courtenay Pkwy & Fortneberry Rd
- S Plumosa St & Fortenberry Rd

Table 1: Study Area Segments

Link ID#	Roadway From	To	Roadway Attributes [1] Adopted LOS	Number of Lanes	Speed Limit	Max Avail. Volume (MAV)	2021 AADT	Existing V/C Ratio	Daily Project Traffic Total Daily Trips = 1,709 % Project Distribution [2]	Project Trips	% Impact [3]	Included in Study Area [4]
	Fortenberry Rd											
119	Courtenay Pkwy	Plumosa St	E	2	35	15,600	3,900	0.25	20%	342	2.19%	Yes
154	Plumosa St	Skyes Creek Pkwy	E	2	35	15,600	3,900	0.25	69%	1,179	7.56%	Yes
	Cone Rd											
117	Tropical Trl	Courtenay Pkwy	E	2	35	15,600	4,200	0.27	2%	34	0.22%	Yes
115	Courtenay Pkwy	Plumosa St	E	2	35	15,600	4,800	0.31	10%	171	1.10%	Yes
	S Plumosa St											
106	Merritt Ave	SR 520	E	2	25	15,600	5,260	0.34	3%	51	0.33%	Yes
120	SR 520	Fortenberry Rd	E	2	25	15,600	4,160	0.27	39%	667	4.28%	Yes
116	Fortenberry Rd	Cone Rd	E	2	35	15,600	4,820	0.31	11%	188	1.21%	Yes
	SR 520											
101	Bridge	Tropical Trl	D	6	45	59,900	44,030	0.74	34%	581	0.97%	Yes
148	Tropical Trl	Courtenay Pkwy	D	6	45	59,900	37,330	0.62	35%	598	1.00%	Yes
97	Courtenay Pkwy	Plaza ent	D	6	45	62,900	30,030	0.48	35%	598	0.95%	Yes
98	Plaza ent	Plumosa St	D	6	45	62,900	29,680	0.47	35%	598	0.95%	Yes
99	Plumosa St	Mall ent	D	6	45	62,900	28,180	0.45	1%	17	0.03%	Yes
100	Mall ent	Skyes Creek Pkwy	D	6	45	62,900	23,830	0.38	1%	17	0.03%	Yes
149	Skyes Creek Pkwy	Newbound Harbor Dr	D	6	45	62,900	28,480	0.45	22%	376	0.60%	Yes
	Skyes Creek Pkwy											
108	N Banana River Dr	Merritt Ave	D	2	45	17,700	9,680	0.55	6%	103	0.58%	Yes
121	Merritt Ave	SR 520	D	4	45	39,800	10,770	0.27	6%	103	0.26%	Yes
123	SR 520	Fortenberry Rd	E	4	35	33,800	4,050	0.12	28%	479	1.42%	Yes
	Merritt Ave											
153	Tropical Trl	Courtenay Pkwy	E	2	25	15,600	3,240	0.21	0%	0	0.00%	Yes
103	Courtenay Pkwy	Plumosa St	E	4	35	33,800	12,780	0.38	2%	34	0.10%	Yes
110	Plumosa St	Skyes Creek Pkwy	E	4	35	33,800	13,220	0.39	0%	0	0.00%	Yes
	Courtenay Pkwy											
131	Needle Blvd	Merritt Ave	D	4	40	41,790	32,130	0.77	18%	308	0.74%	Yes
130	Merritt Ave	SR 520	D	4	40	41,790	26,150	0.63	19%	325	0.78%	Yes
139	SR 520	Magnolia Ave	E	4	35	33,800	17,860	0.53	19%	325	0.96%	Yes
122	Magnolia Ave	Fortenberry Rd	E	4	35	33,800	16,840	0.50	19%	325	0.96%	Yes
118	Fortenberry Rd	Cone Rd	E	2	35	15,600	13,400	0.86	0%	0	0.00%	Yes
114	Cone Rd	Banana Blvd	E	2	35	15,600	10,970	0.70	7%	120	0.77%	Yes
	Tropical Trail											
147	Merritt Ave	SR 520	E	2	35	15,600	8,100	0.52	1%	17	0.11%	Yes
124	SR 520	Cone Rd	E	2	35	12,480	5,070	0.41	0%	0	0.00%	Yes
126	Cone Rd	Plantation Rd	E	2	35	12,480	6,730	0.54	2%	34	0.27%	Yes

Notes:

1. Data obtained from the Space Coast TPO Traffic Counts Report.

2. Percent project traffic assignment was calculated as the maximum across the segment.

3. Percent impact was calculated as the project traffic divided by the maximum service volume.

4. All segments within a 1.0-mile radius of the project site will be included in the study area. As no segments exceed the 5% impact threshold, no additional analysis is needed.

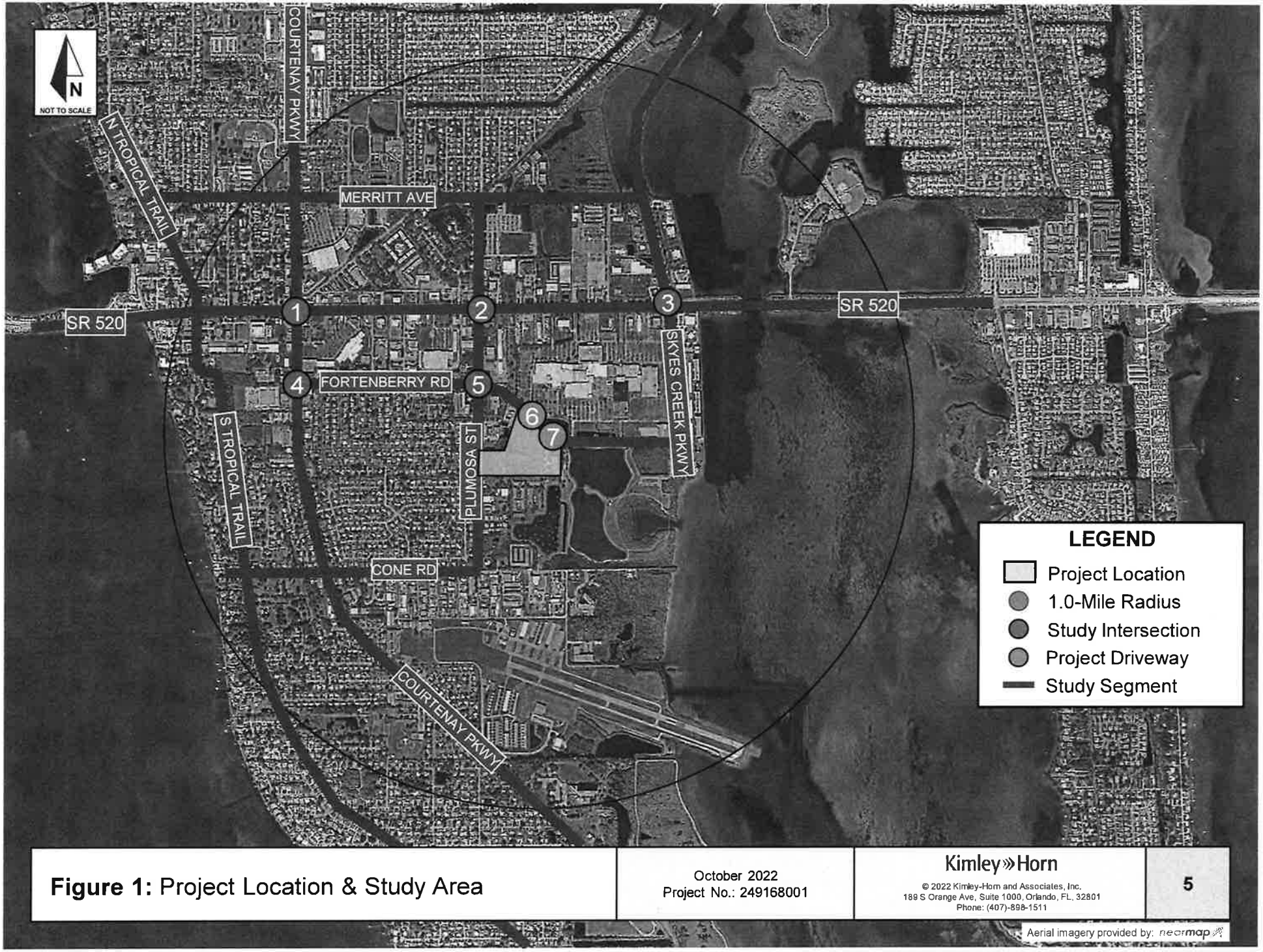


Figure 1: Project Location & Study Area

October 2022
Project No.: 249168001

Kimley»Horn

© 2022 Kimley-Horn and Associates, Inc.
189 S Orange Ave, Suite 1000, Orlando, FL, 32801
Phone: (407)-898-1511

Aerial imagery provided by: nearmap

Kimley»Horn

Existing (2022) Conditions

An existing roadway segment analysis will be performed for Daily and PM peak hour conditions for segments within the study area. Existing daily count data available from the latest Space Coast Transportation Planning Organization (SCTPO) Traffic Counts Report database will be compared to the segment's maximum allowable volume, as provided by the SCTPO and the 2020 FDOT Q/LOS Tables. As the most recent SCPTO Traffic Report does not include peak hour data, peak hour segment volumes will be extrapolated from the turning movement counts collected at the study area intersections.

Intersection turning movement counts will be collected in the AM and PM peak hour at the study area intersections on a standard mid-week day. Turning movement volumes will be adjusted by a seasonal factor (SF) based on data from FDOT's Florida Traffic Online (FTO) database. Signal timings for the signalized intersections in the study area will be requested from the County.

An intersection capacity analysis will be performed using the operational analysis procedures outlined in the *Highway Capacity Manual* 6th Edition. Specifically, Synchro (v11) software will be used to evaluate existing operational conditions at the study area intersections by reporting volume to capacity (v/c) ratios, level of service, and queue length demands. Any operational deficiencies will be identified.

Background (2025) Conditions

Per Brevard County's Guidelines on Minimum Requirements for Traffic Impact Analyses, annual growth rates shall be applied to background traffic by either applying the annual growth rate of the roadway or an annual growth rate of 2%, whichever is greater. Growth rates for the study area segments are included in **Table 2** below. The growth trend calculation worksheets are included in **Attachment B.**

Background volumes on roadway segments will be derived by applying the segment's annual growth rate. A background (2025) roadway segment analysis will also be conducted by comparing background volumes to maximum allowable volumes. Any capacity deficiencies will be identified.

Kimley»Horn

Table 2: Segment Growth Rates

Link ID#	Roadway From	To	Calculated Growth Rate	Applied Growth Rate [1]
	Fortenberry Rd			
119	Courtenay Pkwy	Plumosa St	-0.50%	2%
154	Plumosa St	Skyes Creek Pkwy	-5.09%	2%
	Cone Rd			
117	Tropical Trl	Courtenay Pkwy	-4.18%	2%
115	Courtenay Pkwy	Plumosa St	-6.46%	2%
	S Plumosa St			
106	Merritt Ave	SR 520	-3.60%	2%
120	SR 520	Fortenberry Rd	-3.42%	2%
116	Fortenberry Rd	Cone Rd	-0.48%	2%
	SR 520			
101	Bridge	Tropical Trl	0.35%	2%
148	Tropical Trl	Courtenay Pkwy	-0.91%	2%
97	Courtenay Pkwy	Plaza ent	0.26%	2%
98	Plaza ent	Plumosa St	-2.20%	2%
99	Plumosa St	Mall ent	-0.27%	2%
100	Mall ent	Skyes Creek Pkwy	0.52%	2%
149	Skyes Creek Pkwy	Newbound Harbor Dr	-2.74%	2%
	Skyes Creek Pkwy			
108	N Banana River Dr	Merritt Ave	-1.63%	2%
121	Merritt Ave	SR 520	-1.43%	2%
123	SR 520	Fortenberry Rd	-4.99%	2%
	Merritt Ave			
153	Tropical Trl	Courtenay Pkwy	0.73%	2%
103	Courtenay Pkwy	Plumosa St	0.37%	2%
110	Plumosa St	Skyes Creek Pkwy	-3.63%	2%
	Courtenay Pkwy			
131	Needle Blvd	Merritt Ave	-2.58%	2%
130	Merritt Ave	SR 520	-1.71%	2%
139	SR 520	Magnolia Ave	-3.17%	2%
122	Magnolia Ave	Fortenberry Rd	-0.57%	2%
118	Fortenberry Rd	Cone Rd	-1.91%	2%
114	Cone Rd	Banana Blvd	1.51%	2%
	Tropical Trail			
147	Merritt Ave	SR 520	-2.35%	2%
124	SR 520	Cone Rd	-1.39%	2%
126	Cone Rd	Plantation Rd	-0.71%	2%

Notes:

1. Applied Growth Rate is either 2% or the calculated growth rate, whichever is larger.

Kimley»Horn

A 2% annual growth rate will be applied to the existing intersection volumes to determine background (2025) intersection volumes. An intersection capacity analysis will be performed using the operational analysis procedures outlined in the *Highway Capacity Manual* 6th Edition. Specifically, Synchro (v11) software will be used to evaluate background operational conditions at the study area intersections by reporting volume to capacity (v/c) ratios, level of service, and queue length demands. Any operational deficiencies will be identified.

Trip Generation

Trip generation for the proposed project was calculated per procedures published in the 11th Edition of the Institute of Transportation Engineers' (ITE) *Trip Generation Manual*. Land Use Code (LUC) 221 - Multifamily Housing (Mid-Rise) was used for the proposed development.

Relevant excerpts from the *Trip Generation Manual* are included in **Attachment C.**

Table 3 provides the Daily, AM peak hour, and PM peak hour trip generation summary for the project.

Table 3: Trip Generation Summary

	Land Use	ITE LUC[1]	Size	Units	Trip Generation Equation	Daily				
						Total	In[1]		Out[1]	
Daily	Multifamily Housing (Mid-Rise)	221	368	DU	T = 4.77 * X - 46.46	1,709	50%	855	50%	854
	Total Generated Trips					**1,709**	**855**		**854**	
	Land Use	**ITE LUC[1]**	**Size**	**Units**	**Trip Generation Equation**	**AM Peak Hour**				
						Total	**In[1]**		**Out[1]**	
AM Peak Hour	Multifamily Housing (Mid-Rise)	221	368	DU	T = 0.44 * X - 11.61	150	23%	35	77%	115
	Total Generated Trips					**150**	**35**		**115**	
	Land Use	**ITE LUC[1]**	**Size**	**Units**	**Trip Generation Equation**	**PM Peak Hour**				
						Total	**In[1]**		**Out[1]**	
PM Peak Hour	Multifamily Housing (Mid-Rise)	221	368	DU	T = 0.39 * X + 0.34	144	61%	88	39%	56
	Total Generated Trips					**144**	**88**		**56**	

Note: [1] *Vehicle trip rate and directional splits per ITE Trip Generation, 11th Edition*

Kimley»Horn

Trip Distribution and Trip Assignment

Projected traffic demand of project trips on study roadways was derived with use of the most recent adopted regional travel demand model. Land use data for the project was entered into a new traffic analysis zone (TAZ) within the latest Central Florida Regional Planning Model model set and situated within the existing roadway network to appropriately represent project access. The model was used to assign trips for all trip purposes between allocated origin and destination pairs using project build-out year model data. Trip distribution for the project was extracted from the completed model assignment and reviewed for logic. **Figure 2** shows the general project distribution to be used in the forthcoming TIA. The resulting model plot showing percent of daily project distribution is provided in **Attachment D**.

Daily model project distribution will be referenced to manually assign project distribution at the study area intersections and driveways in general accordance with the model output. This project trip distribution is subject to change based upon the proposed site plan. **Figure 3** provides the anticipated project trip distribution at the study area intersections to be used in the forthcoming TIA.

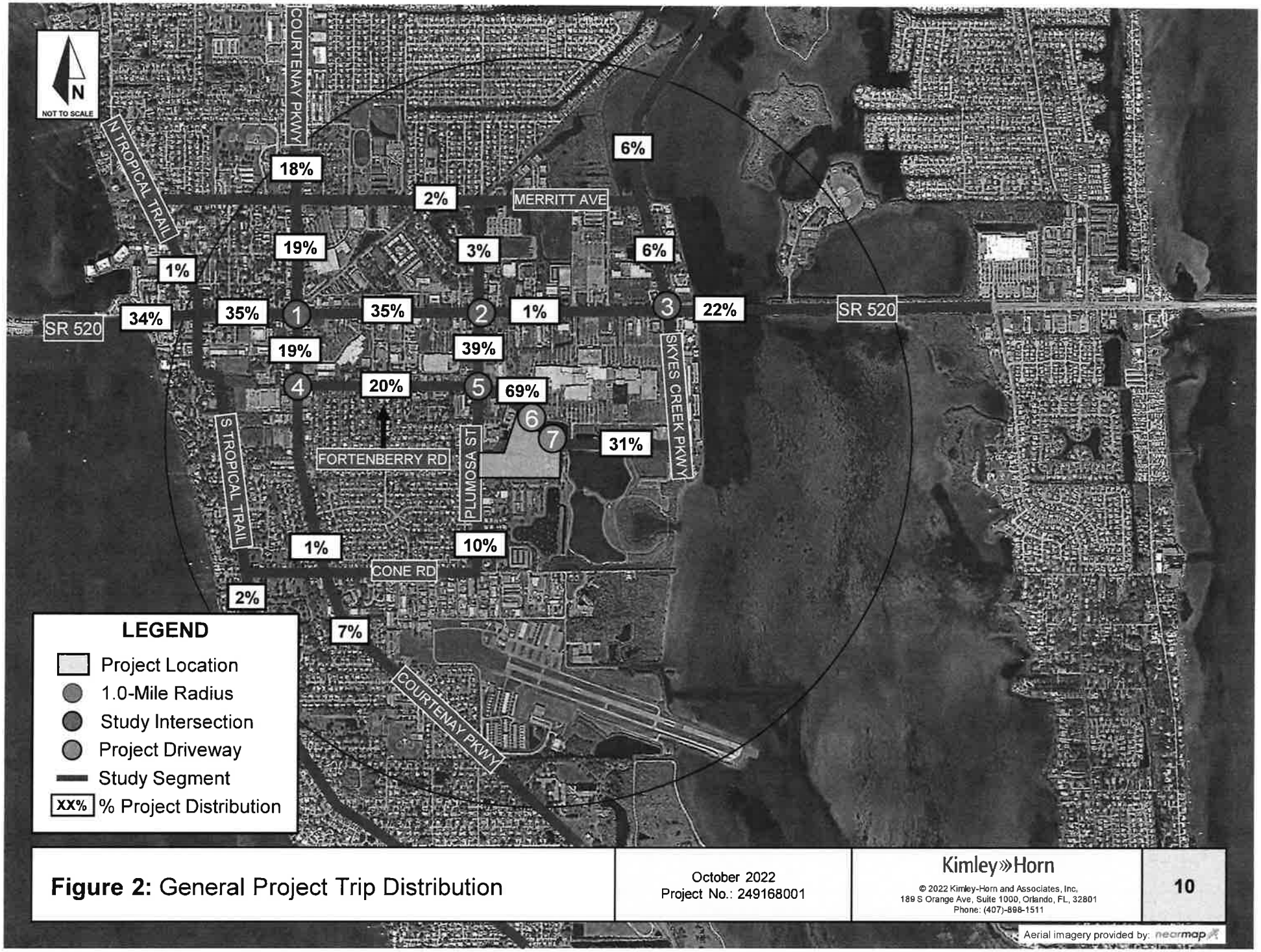


Figure 2: General Project Trip Distribution

October 2022
Project No.: 249168001

Kimley»Horn

© 2022 Kimley-Horn and Associates, Inc.
189 S Orange Ave, Suite 1000, Orlando, FL, 32801
Phone: (407)-898-1511

Aerial imagery provided by: nearmap

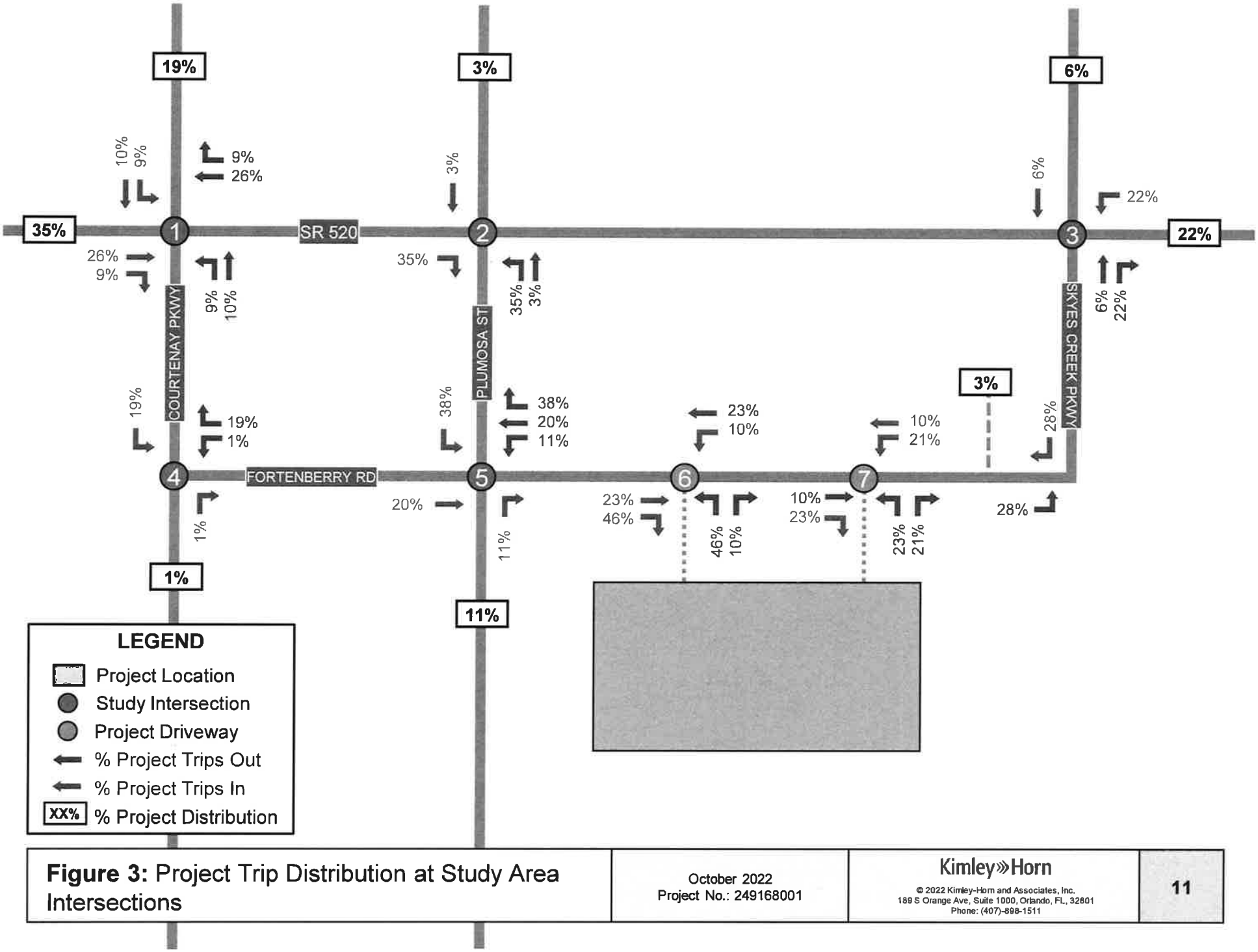


Figure 3: Project Trip Distribution at Study Area Intersections

October 2022
Project No.: 249168001

Kimley»Horn

© 2022 Kimley-Horn and Associates, Inc.
189 S Orange Ave, Suite 1000, Orlando, FL, 32801
Phone: (407)-898-1511

Buildout (2025) Conditions

A buildout (2025) roadway segment analysis will be performed for Daily and PM peak hour conditions within the study area by comparing buildout volume projections to the segment's maximum allowable volumes. Buildout volumes will be derived by adding background volumes and project trips on study area roadway segments. Any capacity deficiencies will be identified.

An intersection capacity analysis will be performed for buildout (2025) conditions using the operational analysis procedures outlined in the *Highway Capacity Manual* 6th Edition. Specifically, Synchro (v11) software will be used to evaluate buildout operational conditions at the study area intersections and project driveways by reporting volume to capacity (v/c) ratios, level of service, and queue length demands. Any operational deficiencies will be identified. If necessary, mitigating measures for any operational deficiencies identified due to project traffic impact will be recommended in the TIA.

Report/Conclusions

All analysis and findings will be documented in a report to be provided to Brevard County for review.

APPENDIX B
Concept Site Plan

OWNERS (NOTE: FOLLOWING WILL BE OWNERS AT TIME OF FORMAL FILING):

NDA MERRITT PROJECT ZENITH, LLC
2 S. UNIVERSITY DRIVE, SUITE 321
PLANTATION, FL 33324

SES MERRITT PROJECT ZENITH, LLC
2 S. UNIVERSITY DRIVE, SUITE 321
PLANTATION, FL 33324

PARCEL TAX NUMBERS:
PARCEL 1: 24-36-36-00-516
PARCEL 2: 24-36-36-00-548
PARCEL 3: 24-36-36-00-547
PARCEL 4: 24-36-36-00-543

EXISTING ZONING - BU-1 AND BU-2
PROPOSED ZONING - PLANNED UNIT DEVELOPMENT (PUD)
OVERALL ACREAGE = 15.1 AC
DWELLING UNITS = 370 DU
COMMON OPEN SPACE = 4.45 AC

DEVELOPMENT REQUIREMENTS:

	REQ./ALLOWED	PROVIDED
MIN. LOT SIZE	10,000 SF	657,820 SF
FRONT SETBACK (NORTH)	25 FT	25 FT
REAR SETBACK (SOUTH)	99 FT	99 FT
SIDE SETBACK (NORTHWEST)	25 FT	46'-2" FT
OPEN SPACE TOTALS		
Common open space (includes active recreational open space)	3.77 ac (25%)	4.45 ac
Active recreation open space: 0.5 ac x 100 dus =	1.85 ac	1.19 ac
OPEN SPACE BREAKDOWN		
Welland Area #1 (Common) =		2.01 ac
Welland Area #2 (Common) =		1.25 ac
Amenity Area (Active) =		0.16 ac
Park (Active) =		0.10 ac
Green Area #1 =		0.27 ac
Green Area #2 =		0.66 ac
BUILDING SEPARATION	20-30 FT	**30'-0" FT**
MIN. FLOOR AREA 1 BR	500 SF	741 SF
2 BR	750 SF	907 SF
3 BR	850 SF	1,290 SF
BUILDING HEIGHT	35'-0"	60FT

WAIVER TABLE

REQUEST TYPE	REQUEST	CODE SECTION	REQUIRED	PROVIDED
Waiver #1	A waiver for a 23% reduction in the 2:1 setback requirements to the 8-36 multistory zoning boundary along the north interior property line	Miscellaneous Zoning Ordinances of Brevard County, Chapter 62, Article VI, Division 6, Subdivision II, Sec. 62-1483.5 (2)(b)	330.0'	85.0'

LEGEND

COMMON OPEN SPACE (3.26 AC)

ACTIVE RECREATIONAL OPEN SPACE (1.19 AC)

TOTAL COMMON OPEN SPACE
(INCLUDING ACTIVE RECREATIONAL OPEN SPACE) 4.45 AC

SITE AREA TABULATIONS

Type	Area (SF)	Area (AC)	Percent Overall
Buildings Type III Footprint	47,154 sf	1.082 ac	7.2%
Buildings Type II Footprint	34,783 sf	0.798 ac	5.3%
Clubhouse Footprint	5,100 sf	0.117 ac	0.8%
Trash Compactor Footprint	609 sf	0.014 ac	0.1%
Asphalt Pavement	228,181 sf	5.238 ac	34.7%
Unpaved	291,738 sf	6.699 ac	44.3%
Landscape islands/ext. ground bldg.	52,756 sf	1.21 ac	8.0%
Overall Site	**657,820 sf**	**15.1 ac**	**100.0%**

FLOOR AREA TABULATIONS

Description	GFA (SF)	GFA (AC)
Buildings Type III	235,770 sf	5.41 ac
Buildings Type II	173,915 sf	3.99 ac
Clubhouse	5,500 sf	0.13 ac
Trash Compactor Footprint	609 sf	0.01 ac
TOTAL	**416,794 sf**	**9.53 ac**
COMPUTED FAR:	**0.64**	

DEVELOPMENT SUMMARY - UNIT MIX

Unit Type	Gross Area	Multifamily Building Types Type II(5+1)	Type III(5 st)	Total Units	% of Total	Target mix	LEASABLE AREA (NRSF)
1BD							
A2	744 sf	20	30	120 units	32%	63%	89,280 sf
A2	741 sf	10	20	30 units	14%		37,050 sf
Sub-total		30	40	170 units	46%		126,330 sf
2BD							
B2	907 sf	5	0	15 units	4%	42%	13,605 sf
B2	1,071 sf	20	30	130 units	32%		128,710 sf
B3	1,179 sf	5	0	15 units	4%		17,685 sf
Sub-total		30	30	150 units	41%		160,050 sf
3BD							
D1	1,333 sf	10	10	50 units	14%	25%	66,650 sf
Sub-total		10	10	50 units	14%		66,650 sf
# of Units/Bldg		70 units	80 units	370 units			
# of Bldgs		3 Bldgs	2 Bldgs	5 bldgs			
Total Apart. Units		**210 units**	**160 units**	**370 units**	**100%**	**100%**	**353,030 sf**
					Gross Average Unit Area		954 sf

OFF-STREET PARKING

	Multifamily	# of units or SF	# Spaces
Required	All Units @ 1.75 sp/DU	370 units	648 sp
	Clubhouse @ 1 sp per 200 SF	5,500 sf	28 sp
	Total Required		**676 sp**
Provided	Surface (Standard)		643 sp
	Clubhouse		10 sp
	Surface (ADA)		13 sp
	Total Provided		**666 sp**

Note: We provided ADA spaces meet ADA Standards for Accessible Design 4.1.2 (5)

1.79 sp/unit

NOTE: SUBJECT TO ALTERNATIVE PARKING STUDY

GENERAL STATEMENT

THIS PRELIMINARY DEVELOPMENT PLAN IS SUBMITTED FOR APPROVAL OF A 370 UNIT APARTMENT COMPLEX CONTAINING 15 +/- ACRES AND CONSIST OF FIVE STORY BUILDINGS, PARKING AREAS AND A RECREATIONAL COMPLEX FOR THE RESIDENTS.

THE DEVELOPMENT PROVIDES A TOTAL OPEN SPACE OF 4.45 AC. THAT INCLUDES COMMON OPEN SPACE AND RECREATIONAL OPEN SPACE

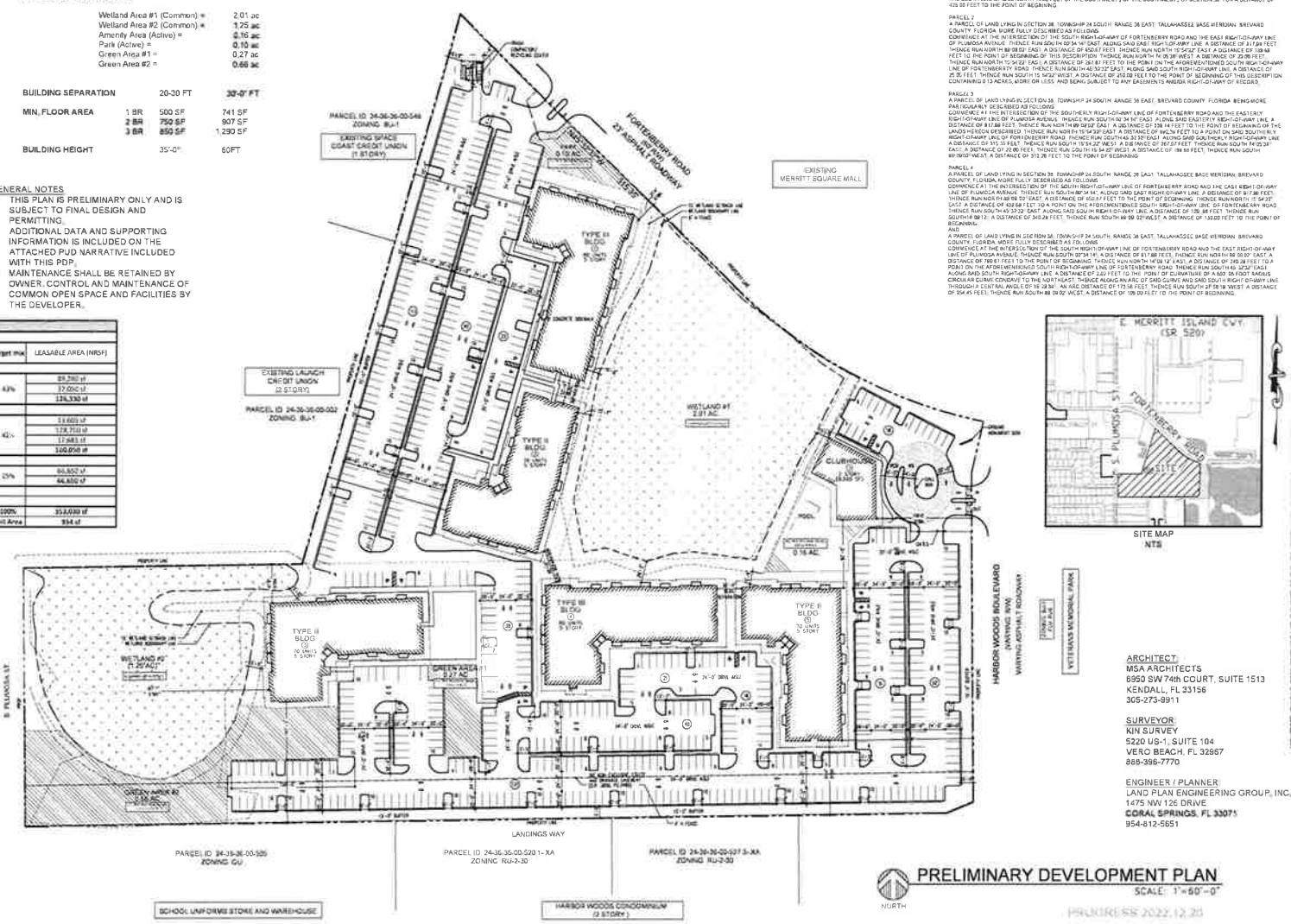
THE WETLAND PRESERVES WILL BE MAINTAINED AND ARE THE CENTER OF THE AESTHETICS OF THE PROJECT. THE PROPERTY IS PART OF THE FORTENBERRY REGIONAL STORMWATER MANAGEMENT SYSTEM AND IS TRIBUTARY TO ALUM POND SOUTH OF THE PROPERTY.

WATER AND SANITARY SEWER SERVICE IS AVAILABLE ONSITE AND IS MAINTAINED BY THE CITY OF COCOA AND BREVARD COUNTY.

ACCESS TO THE SITE WILL BE DIRECTED TO HARBOR WOODS BOULEVARD ALONG THE EAST SIDE OF THE PROPERTY.

GENERAL NOTES

1. THIS PLAN IS PRELIMINARY ONLY AND IS SUBJECT TO FINAL DESIGN AND PERMITTING.
2. ADDITIONAL DATA AND SUPPORTING INFORMATION IS INCLUDED ON THE ATTACHED PUD NARRATIVE INCLUDED WITH THIS PDP.
3. MAINTENANCE SHALL BE RETAINED BY OWNER, CONTROL AND MAINTENANCE OF COMMON OPEN SPACE AND FACILITIES BY THE DEVELOPER.



PRELIMINARY DEVELOPMENT PLAN
SCALE: 1"=60'-0"

PROGRESS 2022.12.20

SITE MAP
NTS

LEGAL DESCRIPTION

PARCEL 1
A PORTION OF SECTION 36, TOWNSHIP 24 SOUTH, RANGE 36 EAST, BREVARD COUNTY, FLORIDA, BEING A PORTION OF THE LANDS DESCRIBED IN OFFICIAL RECORDS BOOK 1456, PAGE 218, OFFICIAL RECORDS BOOK 3334, PAGE 884, OFFICIAL RECORDS BOOK 1167, PAGE 903, AND OFFICIAL RECORDS BOOK 3352, PAGES 1078 AND 1084, ALL OF THE PUBLIC RECORDS OF BREVARD COUNTY, FLORIDA, AS FOLLOWS:

COMMENCE AT THE SOUTHWEST CORNER OF SAID SECTION 36; THENCE RUN NORTH 00°53'33" WEST, ALONG THE WEST LINE OF SAID SECTION 36 FOR A DISTANCE OF 1312.75 FEET TO A POINT ON THE SOUTH LINE OF THE NORTH 14.00 FEET OF THE SOUTHWEST 1/4 OF THE SOUTHWEST 1/4 OF SAID SECTION 36 AND THE SOUTHWEST CORNER OF SAID OFFICIAL RECORDS BOOK 1456, PAGE 218; THENCE RUN NORTH 89°39'48" EAST, ALONG SAID SOUTH LINE FOR A DISTANCE OF 25.00 FEET TO THE POINT OF BEGINNING; THENCE RUN NORTH 00°53'33" WEST, A DISTANCE OF 25.00 FEET FROM AND PARALLEL TO THE WEST LINE OF SAID SECTION 36 FOR A DISTANCE OF 314.00 FEET TO THE NORTH LINE OF SAID OFFICIAL RECORDS BOOK 1456, PAGE 218 AND THE NORTH LINE OF THE SOUTH 300.00 FEET OF THE NORTHWEST 1/4 OF THE SOUTHWEST 1/4 OF SAID SECTION 36; THENCE RUN NORTH 89°09'48" EAST, ALONG SAID NORTH LINE FOR A DISTANCE OF 885.44 FEET; THENCE RUN NORTH 27°58'58" EAST, ALONG THE NORTHWESTERLY LINE OF SAID OFFICIAL RECORDS BOOK 1456, PAGE 218 FOR A DISTANCE OF 354.11 FEET TO A POINT ON THE SOUTHERLY RIGHT-OF-WAY OF FORTENBERRY AVENUE, A 60.00 FOOT RIGHT-OF-WAY, AND THE NORTHERLY LINE OF SAID OFFICIAL RECORDS BOOK 1456, PAGE 218, SAID POINT ALSO BEING ON A CURVE TO THE LEFT HAVING A RADIUS OF 822.96 FEET AND A RADIAL BEARING OF NORTH 27°58'58" EAST; THENCE RUN SOUTHEASTERLY ALONG SAID RIGHT-OF-WAY AND ARC OF CURVE FOR A DISTANCE OF 175.05 FEET, THROUGH A CENTRAL ANGLE OF 12°25'31"; THENCE RUN SOUTH 12°40'26" WEST, FOR A DISTANCE OF 65.00 FEET; THENCE RUN SOUTH 89°34'07" EAST, 15 FEET FROM AND PARALLEL TO THE WEST LINE OF THE EAST 126.00 FEET OF THE SOUTHWEST 1/4 OF SAID SECTION 36, FOR A DISTANCE OF 399.55 FEET; THENCE RUN SOUTH 37°12'08" WEST, FOR A DISTANCE OF 23.61 FEET TO A POINT ON THE SOUTH LINE OF SAID OFFICIAL RECORDS BOOK 2224, PAGE 886 AND THE SOUTH LINE OF SAID NORTH 14.00 FEET OF THE SOUTHWEST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 36; THENCE RUN SOUTH 89°09'48" WEST, ALONG SAID SOUTH LINE 14.00 FEET FROM AND PARALLEL TO THE NORTH LINE OF THE SOUTHWEST 1/4 OF THE SOUTHWEST 1/4 OF SAID SECTION 36 FOR A DISTANCE OF 885.72 FEET TO THE SOUTH LINE OF SAID OFFICIAL RECORDS BOOK 1456, PAGE 218; THENCE CONTINUE SOUTH 89°09'48" WEST, ALONG THE SOUTH LINE OF OFFICIAL RECORDS BOOK 1456, PAGE 218 AND THE SOUTH LINE OF SAID NORTH 14.00 FEET OF THE SOUTHWEST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 36, FOR A DISTANCE OF 425.00 FEET TO THE POINT OF BEGINNING.

PARCEL 2
A PARCEL OF LAND LYING IN SECTION 36, TOWNSHIP 24 SOUTH, RANGE 36 EAST, TALLAHASSEE BASE MERIDIAN, BREVARD COUNTY, FLORIDA, MORE FULLY DESCRIBED AS FOLLOWS:
COMMENCE AT THE INTERSECTION OF THE SOUTH RIGHT-OF-WAY OF FORTENBERRY ROAD AND THE EAST RIGHT-OF-WAY LINE OF PLUMOSA AVENUE; THENCE RUN SOUTH 89°34'14" EAST, ALONG SAID EAST RIGHT-OF-WAY LINE, A DISTANCE OF 317.86 FEET; THENCE RUN NORTH 89°09'02" EAST, A DISTANCE OF 652.67 FEET; THENCE RUN NORTH 15°54'22" EAST A DISTANCE OF 108.68 FEET TO THE POINT OF BEGINNING OF THIS DESCRIPTION; THENCE RUN NORTH 74°05'38" WEST, A DISTANCE OF 25.00 FEET; THENCE RUN NORTH 15°54'22" EAST, A DISTANCE OF 267.87 FEET TO THE POINT ON THE AFOREMENTIONED SOUTH RIGHT-OF-WAY LINE OF FORTENBERRY ROAD; THENCE RUN NORTH 40°32'32" EAST, ALONG SAID SOUTH RIGHT-OF-WAY LINE, A DISTANCE OF 25.35 FEET; THENCE RUN SOUTH 15°54'22" WEST, A DISTANCE OF 293.00 FEET TO THE POINT OF BEGINNING OF THIS DESCRIPTION CONTAINING 0.17 ACRES, MORE OR LESS, AND BEING SUBJECT TO ANY EASEMENTS AND/OR RIGHT-OF-WAY OF RECORD.

PARCEL 3
A PARCEL OF LAND LYING IN SECTION 36, TOWNSHIP 24 SOUTH, RANGE 36 EAST, BREVARD COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:
COMMENCE AT THE INTERSECTION OF THE SOUTHERLY RIGHT-OF-WAY LINE OF FORTENBERRY ROAD AND THE EASTERLY RIGHT-OF-WAY LINE OF PLUMOSA AVENUE; THENCE RUN SOUTH 89°34'14" EAST, ALONG SAID EASTERLY RIGHT-OF-WAY LINE, A DISTANCE OF 317.86 FEET; THENCE RUN NORTH 89°09'02" EAST, A DISTANCE OF 339.14 FEET TO THE POINT OF BEGINNING OF THE LANDS HEREIN DESCRIBED; THENCE RUN NORTH 15°54'22" EAST, A DISTANCE OF 94.34 FEET TO A POINT ON SAID SOUTHERLY RIGHT-OF-WAY LINE OF FORTENBERRY ROAD; THENCE RUN SOUTH 40°32'32" EAST, ALONG SAID SOUTHERLY RIGHT-OF-WAY LINE A DISTANCE OF 515.16 FEET; THENCE RUN SOUTH 15°54'22" WEST, A DISTANCE OF 267.87 FEET; THENCE RUN SOUTH 74°05'38" EAST, A DISTANCE OF 25.00 FEET; THENCE RUN SOUTH 15°54'22" WEST, A DISTANCE OF 199.88 FEET; THENCE RUN SOUTH 89°09'02" WEST, A DISTANCE OF 313.26 FEET TO THE POINT OF BEGINNING.

PARCEL 4
A PARCEL OF LAND LYING IN SECTION 36, TOWNSHIP 24 SOUTH, RANGE 36 EAST, TALLAHASSEE BASE MERIDIAN, BREVARD COUNTY, FLORIDA, MORE FULLY DESCRIBED AS FOLLOWS:
COMMENCE AT THE INTERSECTION OF THE SOUTH RIGHT-OF-WAY LINE OF FORTENBERRY ROAD AND THE EAST RIGHT-OF-WAY LINE OF PLUMOSA AVENUE; THENCE RUN SOUTH 89°34'14" EAST, ALONG SAID EAST RIGHT-OF-WAY LINE, A DISTANCE OF 317.86 FEET; THENCE RUN NORTH 89°09'02" EAST, A DISTANCE OF 652.67 FEET TO THE POINT OF BEGINNING; THENCE RUN NORTH 15°54'22" EAST, A DISTANCE OF 108.68 FEET TO A POINT ON THE AFOREMENTIONED SOUTH RIGHT-OF-WAY LINE OF FORTENBERRY ROAD; THENCE RUN SOUTH 40°32'32" EAST, ALONG SAID SOUTH RIGHT-OF-WAY LINE, A DISTANCE OF 175.88 FEET; THENCE RUN SOUTH 49°09'12" A DISTANCE OF 349.24 FEET; THENCE RUN SOUTH 89°09'02" WEST, A DISTANCE OF 130.00 FEET TO THE POINT OF BEGINNING.
AND
A PARCEL OF LAND LYING IN SECTION 36, TOWNSHIP 24 SOUTH, RANGE 36 EAST, TALLAHASSEE BASE MERIDIAN, BREVARD COUNTY, FLORIDA, MORE FULLY DESCRIBED AS FOLLOWS:
COMMENCE AT THE INTERSECTION OF THE SOUTH RIGHT-OF-WAY LINE OF FORTENBERRY ROAD AND THE EAST RIGHT-OF-WAY LINE OF PLUMOSA AVENUE; THENCE RUN SOUTH 00°34'14" A DISTANCE OF 617.88 FEET; THENCE RUN NORTH 89°09'02" EAST, A DISTANCE OF 780.61 FEET TO THE POINT OF BEGINNING; THENCE RUN NORTH 74°18'12" EAST, A DISTANCE OF 210.28 FEET TO A POINT ON THE AFOREMENTIONED SOUTH RIGHT-OF-WAY LINE OF FORTENBERRY ROAD; THENCE RUN SOUTH 40°32'32" EAST ALONG SAID SOUTH RIGHT-OF-WAY LINE, A DISTANCE OF 220.71 FEET TO THE POINT OF CURVATURE OF A 500.00-FOOT RADIUS CIRCULAR CURVE CONCAVE TO THE NORTHEAST; THENCE ALONG AN ARC OF SAID CURVE AND SAID SOUTH RIGHT-OF-WAY LINE THROUGH A CENTRAL ANGLE OF 15°28'34", AN ARC DISTANCE OF 173.56 FEET; THENCE RUN SOUTH 25°03'58" WEST A DISTANCE OF 354.45 FEET; THENCE RUN SOUTH 89°09'02" WEST, A DISTANCE OF 109.09 FEET TO THE POINT OF BEGINNING.

ARCHITECT:
MSA ARCHITECTS
6950 SW 74th COURT, SUITE 1513
KENDALL, FL 33156
305-273-9911

SURVEYOR:
KIN SURVEY
5220 US-1, SUITE 104
VERO BEACH, FL 32967
888-396-7770

ENGINEER / PLANNER:
LAND PLAN ENGINEERING GROUP, INC.
1475 NW 126 DRIVE
CORAL SPRINGS, FL 33071
954-812-5651

REVISIONS	BY

FORTENBERRY ROAD APTS.
LOCATED AT:
MERRITT ISLAND, FLORIDA
FOR:
WOODFIELD

GEORGE L. MOURIZ
AR0007806

MSA ARCHITECTS, INC
AAC000695
6950 SW 74th COURT
SUITE 1513
MIAMI, FLORIDA 33156
(305) 273-9911

MSA ARCHITECTS
ARCHITECTURE & PLANNING

ARCHITECT'S SEALING CODE TESTIFIES TO THE BEST OF MY KNOWLEDGE THAT THE PLANS AND SPECIFICATIONS COMPLY WITH THE FLORIDA BUILDING CODE. SEALING CODE TESTIFIES ONLY TO THE LEGAL ACCURACY AND COMPLETENESS OF THE DESIGNS AS DESCRIBED BY THE LEGAL ACCURACY AND COMPLETENESS OF THE DESIGNS AS DESCRIBED BY THE ARCHITECT.
COPYRIGHT © 2022 MSA ARCHITECTS, INC. ALL RIGHTS RESERVED. THESE PLANS, IDEAS, DESIGNS, ARRANGEMENTS AND PLANS REPRESENTED, EXHIBITED OR EXPRESSED HEREIN ARE THE LEGAL PROPERTY OF MSA ARCHITECTS, INC. AND ARE PROTECTED BY THE COPYRIGHT LAWS OF THE UNITED STATES. ALL RIGHTS ARE RESERVED BY THE ARCHITECT.

DRAWN	
DATE	09/08/2022
SCALE	AS SHOWN
JOB NO.	2163.PRE

SHEET TITLE:
PRELIMINARY DEVELOPMENT PLAN

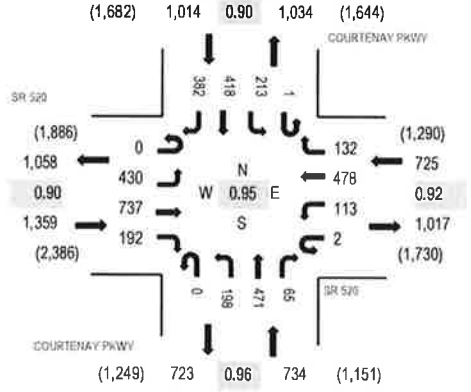
SHEET NUMBER:
PDP-1

APPENDIX C
Turning Movement Counts

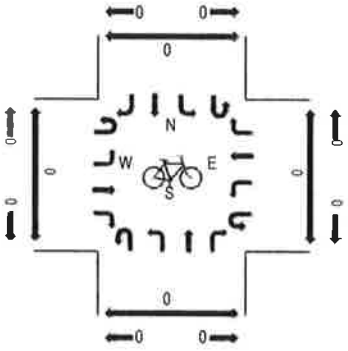
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 1 COURTENAY PKWY & SR 520 AM
Date: Tuesday, October 18, 2022
Peak Hour: 08:00 AM - 09:00 AM
Peak 15-Minutes: 08:15 AM - 08:30 AM

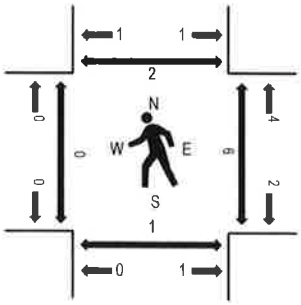
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	SR 520 Eastbound				SR 520 Westbound				COURTENAY PKWY Northbound				COURTENAY PKWY Southbound					Rolling	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
7:00 AM	0	47	107	28	0	11	71	12	0	18	56	9	0	19	46	49	473	2,677	0	0	0	0
7:15 AM	0	64	112	33	0	19	113	28	0	38	65	5	0	18	92	65	652	3,101	0	0	0	0
7:30 AM	0	62	147	39	0	32	105	13	0	57	85	13	0	37	58	70	718	3,461	0	0	0	0
7:45 AM	0	121	200	67	0	19	115	27	0	37	29	5	1	41	82	90	834	3,704	0	1	0	0
8:00 AM	0	132	173	36	0	25	103	23	0	54	106	14	1	44	97	89	897	3,832	0	1	0	0
8:15 AM	0	113	190	50	0	29	133	35	0	42	137	13	0	55	110	105	1,012		0	1	0	1
8:30 AM	0	86	178	49	0	31	111	42	0	43	117	23	0	60	116	105	961		0	1	1	0
8:45 AM	0	99	196	57	2	28	131	32	0	59	111	15	0	54	95	83	962		0	3	0	1

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	2	10	2	0	0	8	0	0	3	0	1	0	1	4	4	35
Lights	0	421	717	184	2	112	461	129	0	194	465	64	1	208	408	376	3,742
Mediums	0	7	10	6	0	1	9	3	0	1	6	0	0	4	6	2	55
Total	0	430	737	192	2	113	478	132	0	198	471	65	1	213	418	382	3,832

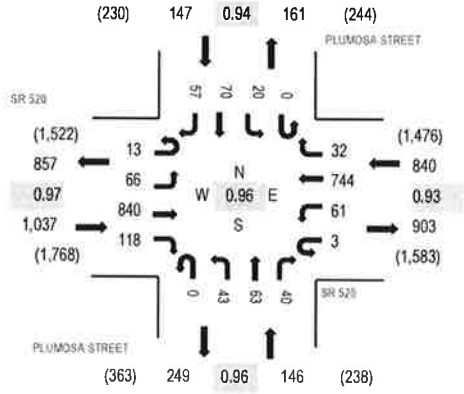
Heavy Vehicle Percentage and Peak Hour Factor

	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Heavy Vehicle %		2.7%				2.9%				1.5%				2.1%			2.3%
Heavy Vehicle %	0.0%	2.1%	2.7%	4.2%	0.0%	0.9%	3.6%	2.3%	0.0%	2.0%	1.3%	1.5%	0.0%	2.3%	2.4%	1.6%	2.3%
Peak Hour Factor		0.90				0.92				0.96				0.90			0.95
Peak Hour Factor	0.00	0.86	0.93	0.75	0.25	0.91	0.90	0.79	0.00	0.84	0.86	0.71	0.50	0.89	0.90	0.93	0.95

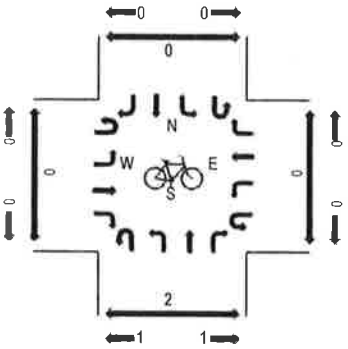
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 2 PLUMOSA STREET & SR 520 AM
Date: Tuesday, October 18, 2022
Peak Hour: 08:00 AM - 09:00 AM
Peak 15-Minutes: 08:45 AM - 09:00 AM

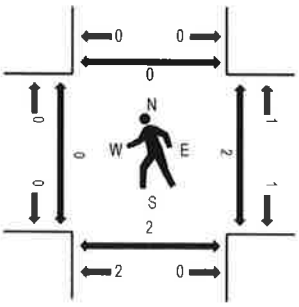
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	SR 520 Eastbound				SR 520 Westbound				PLUMOSA STREET Northbound				PLUMOSA STREET Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	1	7	121	10	0	3	99	5	0	5	7	5	0	0	1	10	274	1,542	2	0	3	0
7:15 AM	0	7	120	12	0	8	174	1	0	9	6	10	0	0	9	12	368	1,772	0	0	1	0
7:30 AM	1	7	209	14	0	11	146	3	0	8	9	10	0	4	7	14	443	1,949	0	0	0	0
7:45 AM	0	10	191	21	1	8	169	8	0	5	13	5	0	4	10	12	457	2,063	0	0	0	0
8:00 AM	1	22	188	27	0	12	171	10	0	5	21	10	0	4	19	14	504	2,170	0	0	0	0
8:15 AM	1	19	220	26	0	10	189	7	0	8	18	9	0	5	19	14	545		0	0	0	0
8:30 AM	3	12	218	34	1	16	192	5	0	11	14	12	0	5	16	18	557		0	1	0	0
8:45 AM	8	13	214	31	2	23	192	10	0	19	10	9	0	6	16	11	564		0	1	2	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	1	9	1	0	0	4	0	0	1	0	0	0	0	0	1	17
Lights	13	64	803	113	3	61	719	32	0	41	61	39	0	19	67	56	2,091
Mediums	0	1	28	4	0	0	21	0	0	1	2	1	0	1	3	0	62
Total	13	66	840	118	3	61	744	32	0	43	63	40	0	20	70	57	2,170

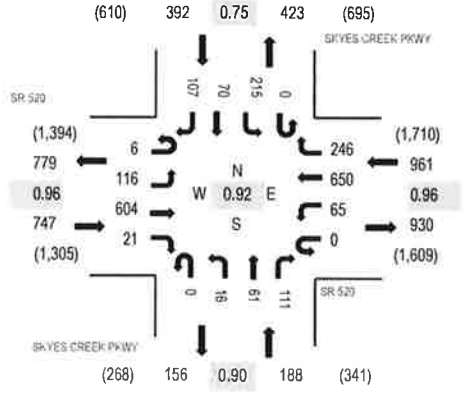
Heavy Vehicle Percentage and Peak Hour Factor

	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Heavy Vehicle %		4.2%				3.0%				3.4%				3.4%			3.6%
Heavy Vehicle %	0.0%	3.0%	4.4%	4.2%	0.0%	0.0%	3.4%	0.0%	0.0%	4.7%	3.2%	2.5%	0.0%	5.0%	4.3%	1.8%	3.6%
Peak Hour Factor		0.97				0.93				0.96				0.94			0.96
Peak Hour Factor	0.41	0.75	0.95	0.87	0.38	0.66	0.97	0.80	0.00	0.57	0.79	0.83	0.00	0.83	0.92	0.81	0.96

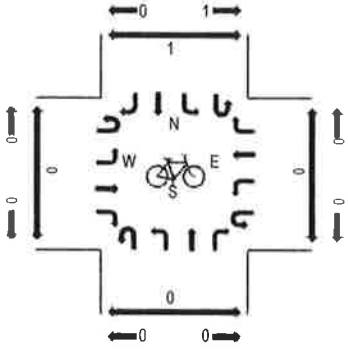
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 3 SKYES CREEK PKWY & SR 520 AM
Date: Tuesday, October 18, 2022
Peak Hour: 08:00 AM - 09:00 AM
Peak 15-Minutes: 08:45 AM - 09:00 AM

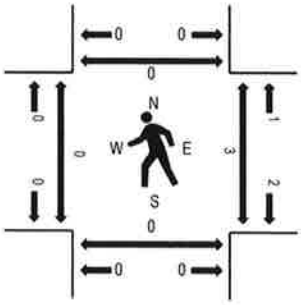
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	SR 520 Eastbound				SR 520 Westbound				SKYES CREEK PKWY Northbound				SKYES CREEK PKWY Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	9	102	2	0	8	93	27	0	3	4	17	0	20	7	13	305	1,678	0	0	0	0
7:15 AM	0	13	86	0	0	17	138	28	0	2	7	17	0	16	8	18	350	1,876	0	0	0	1
7:30 AM	0	32	139	4	1	16	145	40	0	4	9	37	0	39	8	22	496	2,100	0	0	0	0
7:45 AM	0	30	134	7	0	25	155	56	0	3	17	33	0	38	10	19	527	2,194	0	0	0	0
8:00 AM	1	26	139	5	0	14	141	57	0	7	14	24	0	39	16	20	503	2,288	0	3	0	0
8:15 AM	1	29	152	7	0	11	169	71	0	3	13	24	0	59	13	22	574		0	0	0	0
8:30 AM	1	32	158	3	0	21	164	66	0	0	17	35	0	45	24	24	590		0	0	0	0
8:45 AM	3	29	155	6	0	19	176	52	0	6	17	28	0	72	17	41	621		0	0	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	6	0	0	0	4	1	0	0	0	0	0	1	1	0	13
Lights	6	115	572	20	0	64	630	241	0	15	60	110	0	211	69	106	2,219
Mediums	0	1	26	1	0	1	16	4	0	1	1	1	0	3	0	1	56
Total	6	116	604	21	0	65	650	246	0	16	61	111	0	215	70	107	2,288

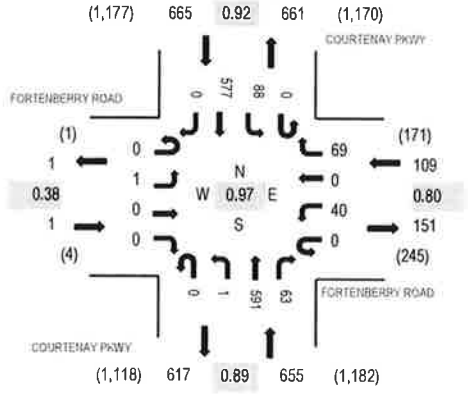
Heavy Vehicle Percentage and Peak Hour Factor

	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Heavy Vehicle %		4.6%				2.7%				1.6%				1.5%			3.0%
Heavy Vehicle %	0.0%	0.9%	5.3%	4.8%	0.0%	1.5%	3.1%	2.0%	0.0%	6.3%	1.6%	0.9%	0.0%	1.9%	1.4%	0.9%	3.0%
Peak Hour Factor		0.96				0.96				0.90				0.75			0.92
Peak Hour Factor	0.50	0.91	0.96	0.82	0.25	0.72	0.92	0.88	0.00	0.61	0.90	0.80	0.00	0.75	0.73	0.65	0.92

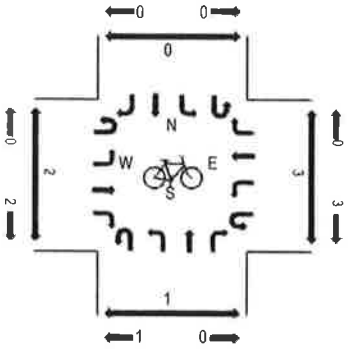
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 4 COURTENAY PKWY & FORTENBERRY ROAD AM
Date: Tuesday, October 18, 2022
Peak Hour: 08:00 AM - 09:00 AM
Peak 15-Minutes: 08:30 AM - 08:45 AM

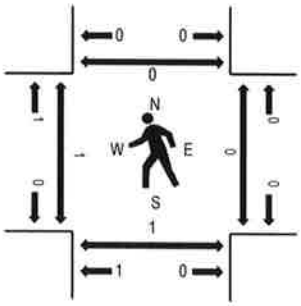
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	FORTENBERRY ROAD Eastbound				FORTENBERRY ROAD Westbound				COURTENAY PKWY Northbound				COURTENAY PKWY Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	0	0	0	0	2	0	8	0	0	91	7	0	3	82	0	193	1,104	0	1	0	0
7:15 AM	0	0	0	0	0	9	0	8	0	0	96	9	0	8	115	0	245	1,272	2	0	0	0
7:30 AM	0	1	0	0	0	7	0	10	0	0	146	17	0	8	130	0	319	1,378	0	1	0	0
7:45 AM	0	0	0	2	0	10	0	8	0	0	141	20	0	22	144	0	347	1,429	0	1	0	0
8:00 AM	0	0	0	0	0	8	0	11	0	0	175	18	0	21	128	0	361	1,430	0	0	0	0
8:15 AM	0	0	0	0	0	7	0	18	0	0	154	14	0	16	142	0	351		0	0	0	0
8:30 AM	0	1	0	0	0	12	0	22	0	1	137	16	0	28	153	0	370		1	0	1	0
8:45 AM	0	0	0	0	0	13	0	18	0	0	125	15	0	23	154	0	348		0	0	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	2	0	0	1	0	0	0	7	0	10
Lights	0	1	0	0	0	38	0	66	0	1	582	62	0	88	553	0	1,391
Mediums	0	0	0	0	0	2	0	1	0	0	8	1	0	0	17	0	29
Total	0	1	0	0	0	40	0	69	0	1	591	63	0	88	577	0	1,430

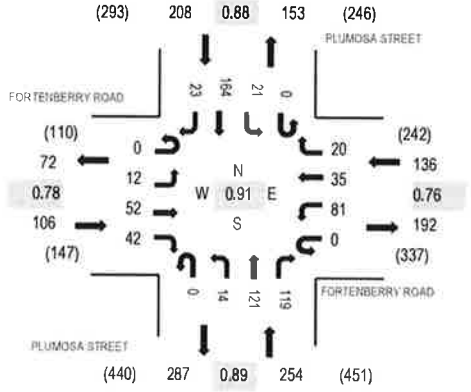
Heavy Vehicle Percentage and Peak Hour Factor

	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Heavy Vehicle %		0.0%				4.6%				1.5%				3.6%			2.7%
Heavy Vehicle %	0.0%	0.0%	0.0%	0.0%	0.0%	5.0%	0.0%	4.3%	0.0%	0.0%	1.5%	1.6%	0.0%	0.0%	4.2%	0.0%	2.7%
Peak Hour Factor		0.38				0.80				0.89				0.92			0.97
Peak Hour Factor	0.00	0.25	0.00	0.25	0.00	0.77	0.00	0.78	0.00	0.25	0.88	0.86	0.00	0.79	0.94	0.00	0.97

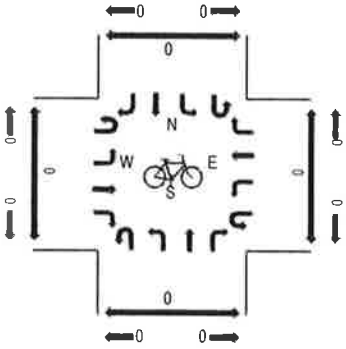
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 5 PLUMOSA STREET & FORTENBERRY ROAD AM
Date: Tuesday, October 18, 2022
Peak Hour: 08:00 AM - 09:00 AM
Peak 15-Minutes: 08:30 AM - 08:45 AM

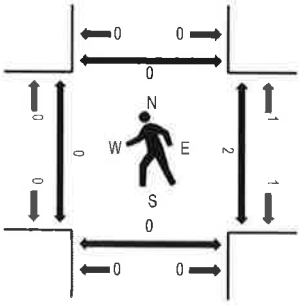
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	FORTENBERRY ROAD Eastbound				FORTENBERRY ROAD Westbound				PLUMOSA STREET Northbound				PLUMOSA STREET Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	0	3	1	0	6	5	4	0	2	16	14	0	3	10	0	64	429	0	0	0	0
7:15 AM	0	0	5	6	0	19	8	3	0	1	21	20	0	2	16	0	101	529	0	0	0	0
7:30 AM	0	1	8	2	0	19	7	3	0	2	22	36	0	2	22	1	125	581	0	0	0	0
7:45 AM	0	2	10	3	0	23	6	3	0	4	18	41	0	1	26	2	139	650	0	0	0	0
8:00 AM	0	3	9	9	0	19	5	4	0	1	36	29	0	2	41	6	164	704	0	0	0	0
8:15 AM	0	2	18	6	0	21	8	3	0	2	28	23	0	4	31	7	153		0	0	0	0
8:30 AM	0	4	17	13	0	16	8	7	0	6	28	37	0	7	48	3	194		0	0	0	0
8:45 AM	0	3	8	14	0	25	14	6	0	5	29	30	0	8	44	7	193		0	2	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	3
Lights	0	12	50	42	0	79	35	19	0	14	115	119	0	21	161	21	688
Mediums	0	0	2	0	0	2	0	0	0	0	6	0	0	0	2	1	13
Total	0	12	52	42	0	81	35	20	0	14	121	119	0	21	164	23	704

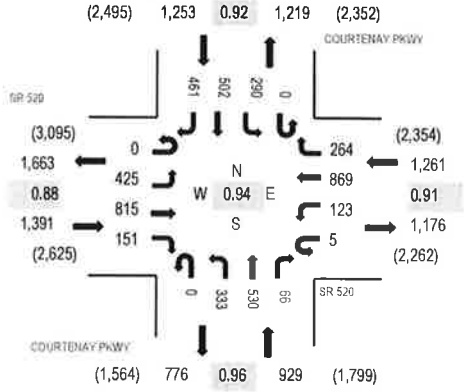
Heavy Vehicle Percentage and Peak Hour Factor

	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Heavy Vehicle %		1.9%				2.2%				2.4%				2.4%			2.3%
Heavy Vehicle %	0.0%	0.0%	3.8%	0.0%	0.0%	2.5%	0.0%	5.0%	0.0%	0.0%	5.0%	0.0%	0.0%	0.0%	1.8%	8.7%	2.3%
Peak Hour Factor		0.78				0.76				0.89				0.88			0.91
Peak Hour Factor	0.00	0.75	0.75	0.75	0.00	0.89	0.63	0.71	0.00	0.58	0.84	0.79	0.00	0.66	0.85	0.82	0.91

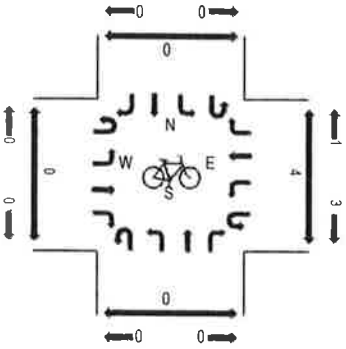
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 1 COURTENAY PKWY & SR 520 PM
Date: Tuesday, October 18, 2022
Peak Hour: 04:30 PM - 05:30 PM
Peak 15-Minutes: 05:15 PM - 05:30 PM

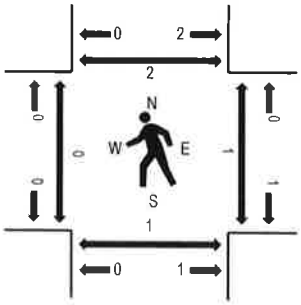
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	SR 520 Eastbound				SR 520 Westbound				COURTENAY PKWY Northbound				COURTENAY PKWY Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	92	205	37	2	34	201	64	0	69	108	13	0	75	144	128	1,172	4,649	0	1	0	0
4:15 PM	0	87	167	40	1	33	195	54	0	89	118	23	0	96	118	98	1,119	4,670	0	2	0	0
4:30 PM	0	91	208	34	0	20	226	74	0	91	120	22	0	82	83	120	1,171	4,834	0	1	0	1
4:45 PM	0	84	201	33	2	47	218	70	0	74	141	13	0	65	140	99	1,187	4,797	0	0	0	0
5:00 PM	0	110	197	39	1	24	176	55	0	86	144	15	0	76	146	124	1,193	4,624	0	0	0	0
5:15 PM	0	140	209	45	2	32	249	65	0	82	125	16	0	67	133	118	1,283		0	0	1	1
5:30 PM	0	98	175	35	0	38	201	61	0	48	150	20	1	66	138	103	1,134		0	0	0	0
5:45 PM	0	96	166	36	0	14	137	58	0	68	146	18	0	59	121	95	1,014		0	0	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	6	1	0	0	4	1	0	3	2	0	0	1	0	0	18
Lights	0	424	804	149	5	122	853	262	0	326	519	66	0	289	502	458	4,779
Mediums	0	1	5	1	0	1	12	1	0	4	9	0	0	0	0	3	37
Total	0	425	815	151	5	123	869	264	0	333	530	66	0	290	502	461	4,834

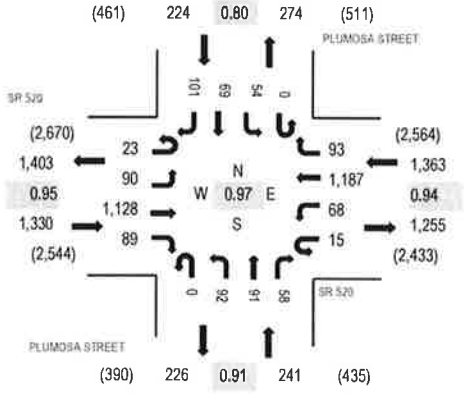
Heavy Vehicle Percentage and Peak Hour Factor

	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Heavy Vehicle %		1.0%				1.5%				1.9%				0.3%			1.1%
Heavy Vehicle %	0.0%	0.2%	1.3%	1.3%	0.0%	0.8%	1.8%	0.8%	0.0%	2.1%	2.1%	0.0%	0.0%	0.3%	0.0%	0.7%	1.1%
Peak Hour Factor		0.88				0.91				0.96				0.92			0.94
Peak Hour Factor	0.00	0.79	0.97	0.86	0.63	0.75	0.87	0.89	0.00	0.93	0.94	0.79	0.25	0.83	0.95	0.93	0.94

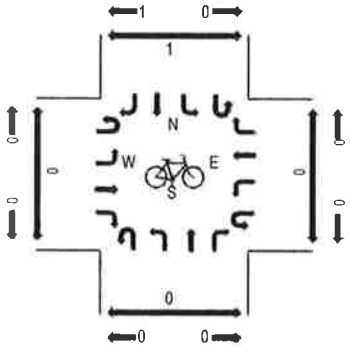
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 2 PLUMOSA STREET & SR 520 PM
Date: Tuesday, October 18, 2022
Peak Hour: 04:15 PM - 05:15 PM
Peak 15-Minutes: 05:00 PM - 05:15 PM

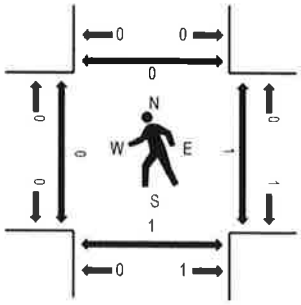
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	SR 520 Eastbound				SR 520 Westbound				PLUMOSA STREET Northbound				PLUMOSA STREET Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	5	23	270	12	2	18	303	16	0	20	15	12	0	16	21	37	770	3,113	0	1	2	0
4:15 PM	8	19	302	19	6	21	307	29	0	13	15	5	0	14	19	24	801	3,158	0	0	0	0
4:30 PM	3	27	252	30	4	19	270	26	0	18	28	20	0	13	17	27	754	3,100	0	0	0	0
4:45 PM	5	26	277	13	5	20	303	22	0	33	19	17	0	13	14	21	788	3,040	0	1	0	0
5:00 PM	7	18	297	27	0	8	307	16	0	28	29	16	0	14	19	29	815	2,891	0	0	1	0
5:15 PM	6	30	270	9	7	13	272	17	0	24	18	15	0	24	11	27	743		0	0	0	0
5:30 PM	4	20	247	5	7	13	275	20	0	23	15	8	0	17	23	17	694		0	2	2	0
5:45 PM	11	27	257	18	2	8	209	19	0	13	17	14	0	10	13	21	639		0	0	2	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	3	0	0	0	5	0	0	0	0	0	0	0	0	0	8
Lights	23	85	1,117	87	15	68	1,165	90	0	90	91	57	0	52	68	100	3,108
Mediums	0	5	8	2	0	0	17	3	0	2	0	1	0	2	1	1	42
Total	23	90	1,128	89	15	68	1,187	93	0	92	91	58	0	54	69	101	3,158

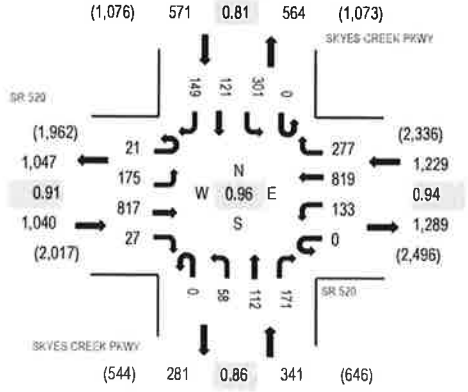
Heavy Vehicle Percentage and Peak Hour Factor

	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Heavy Vehicle %		1.4%				1.8%				1.2%				1.8%			1.6%
Heavy Vehicle %	0.0%	5.6%	1.0%	2.2%	0.0%	0.0%	1.9%	3.2%	0.0%	2.2%	0.0%	1.7%	0.0%	3.7%	1.4%	1.0%	1.6%
Peak Hour Factor		0.95				0.94				0.91				0.80			0.97
Peak Hour Factor	0.64	0.84	0.93	0.74	0.68	0.93	0.97	0.80	0.00	0.82	0.81	0.85	0.00	0.71	0.85	0.74	0.97

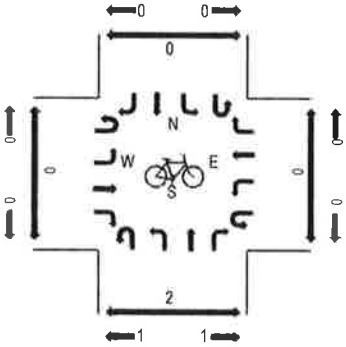
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 3 SKYES CREEK PKWY & SR 520 PM
Date: Tuesday, October 18, 2022
Peak Hour: 04:00 PM - 05:00 PM
Peak 15-Minutes: 04:00 PM - 04:15 PM

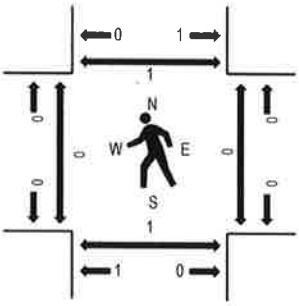
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	SR 520 Eastbound				SR 520 Westbound				SKYES CREEK PKWY Northbound				SKYES CREEK PKWY Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	6	48	222	10	0	35	202	62	0	19	16	36	0	88	37	51	832	3,181	0	0	1	0
4:15 PM	4	51	213	6	0	36	220	75	0	12	38	41	0	65	34	31	826	3,139	0	0	0	1
4:30 PM	3	39	168	6	0	37	213	67	0	17	31	58	0	85	26	32	782	3,083	0	0	0	0
4:45 PM	8	37	214	5	0	25	184	73	0	10	27	36	0	63	24	35	741	2,964	0	0	0	0
5:00 PM	7	42	199	3	0	34	207	72	0	8	38	49	0	58	43	30	790	2,894	0	1	0	0
5:15 PM	4	44	201	6	0	30	220	51	0	14	27	39	0	75	25	34	770		0	0	0	0
5:30 PM	3	36	202	8	0	28	163	52	0	10	22	29	0	61	21	28	663		0	0	0	0
5:45 PM	2	33	181	6	0	27	158	65	0	6	27	36	0	77	32	21	671		0	0	2	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	1	0	0	0	4	1	0	0	0	0	0	1	0	0	7
Lights	21	173	808	27	0	131	796	268	0	58	110	168	0	299	117	148	3,124
Mediums	0	2	8	0	0	2	19	8	0	0	2	3	0	1	4	1	50
Total	21	175	817	27	0	133	819	277	0	58	112	171	0	301	121	149	3,181

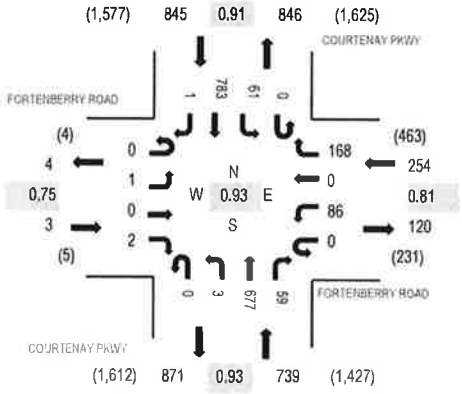
Heavy Vehicle Percentage and Peak Hour Factor

	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Heavy Vehicle %		1.1%				2.8%				1.5%				1.2%			1.8%
Heavy Vehicle %	0.0%	1.1%	1.1%	0.0%	0.0%	1.5%	2.8%	3.2%	0.0%	0.0%	1.8%	1.8%	0.0%	0.7%	3.3%	0.7%	1.8%
Peak Hour Factor		0.91				0.94				0.86				0.81			0.96
Peak Hour Factor	0.69	0.86	0.92	0.68	0.00	0.90	0.94	0.96	0.00	0.76	0.88	0.79	0.00	0.86	0.74	0.73	0.96

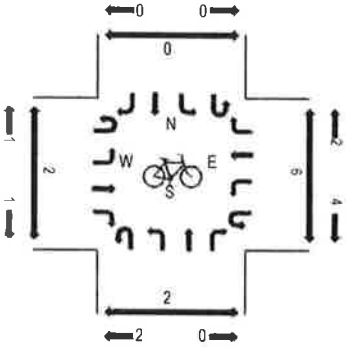
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 4 COURTENAY PKWY & FORTENBERRY ROAD PM
Date: Tuesday, October 18, 2022
Peak Hour: 04:45 PM - 05:45 PM
Peak 15-Minutes: 05:00 PM - 05:15 PM

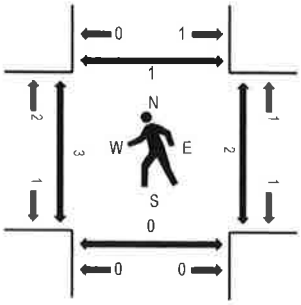
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	FORTENBERRY ROAD Eastbound				FORTENBERRY ROAD Westbound				COURTENAY PKWY Northbound				COURTENAY PKWY Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	0	1	0	0	18	0	41	0	0	145	7	0	23	187	0	422	1,690	0	1	0	0
4:15 PM	0	1	0	0	0	17	0	37	0	0	166	13	0	15	173	0	422	1,761	0	2	0	0
4:30 PM	0	0	0	0	0	23	0	29	0	0	186	13	0	9	157	0	417	1,825	0	2	0	0
4:45 PM	0	0	0	0	0	19	0	43	0	0	146	18	0	20	183	0	429	1,841	2	0	0	1
5:00 PM	0	0	0	1	0	23	0	59	0	3	180	13	0	17	196	1	493	1,782	1	0	0	0
5:15 PM	0	0	0	1	0	25	0	44	0	0	168	16	0	15	217	0	486		0	2	0	0
5:30 PM	0	1	0	0	0	19	0	22	0	0	183	12	0	9	187	0	433		0	0	0	0
5:45 PM	0	0	0	0	0	15	0	29	0	0	145	13	0	17	151	0	370		0	1	0	1

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	1	0	0	3	1	0	0	0	0	5
Lights	0	1	0	2	0	86	0	166	0	3	665	56	0	61	779	1	1,820
Mediums	0	0	0	0	0	0	0	1	0	0	9	2	0	0	4	0	16
Total	0	1	0	2	0	86	0	168	0	3	677	59	0	61	783	1	1,841

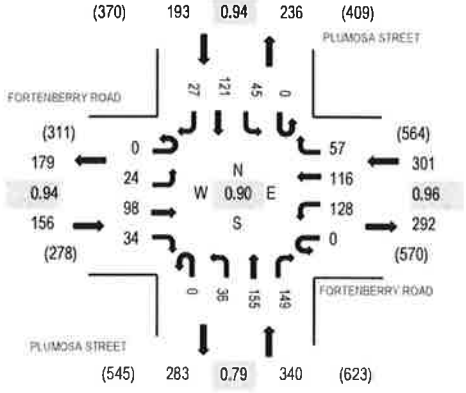
Heavy Vehicle Percentage and Peak Hour Factor

	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Heavy Vehicle %		0.0%				0.8%				2.0%				0.5%			1.1%
Heavy Vehicle %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.2%	0.0%	0.0%	1.8%	5.1%	0.0%	0.0%	0.5%	0.0%	1.1%
Peak Hour Factor		0.75				0.81				0.93				0.91			0.93
Peak Hour Factor	0.00	0.25	0.25	0.50	0.00	0.90	0.00	0.74	0.00	0.25	0.91	0.83	0.00	0.73	0.90	0.25	0.93

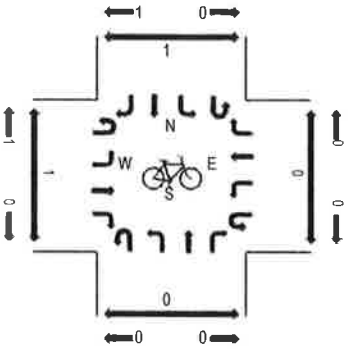
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 5 PLUMOSA STREET & FORTENBERRY ROAD PM
Date: Tuesday, October 18, 2022
Peak Hour: 04:30 PM - 05:30 PM
Peak 15-Minutes: 05:00 PM - 05:15 PM

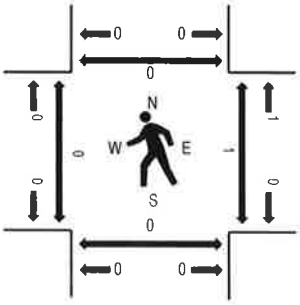
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	FORTENBERRY ROAD Eastbound				FORTENBERRY ROAD Westbound				PLUMOSA STREET Northbound				PLUMOSA STREET Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	4	21	9	0	36	23	15	0	7	23	35	0	15	32	8	228	941	0	1	0	0
4:15 PM	0	4	30	4	0	35	20	19	0	12	21	34	0	9	32	6	226	989	0	1	0	0
4:30 PM	0	5	22	11	0	29	29	16	0	9	34	42	0	14	29	11	251	990	0	0	0	0
4:45 PM	0	7	27	8	0	28	29	17	0	4	36	29	0	17	31	3	236	951	0	1	0	0
5:00 PM	0	6	27	10	0	38	24	13	0	15	48	44	0	9	33	9	276	894	0	0	0	0
5:15 PM	0	6	22	5	0	33	34	11	0	8	37	34	0	5	28	4	227		0	0	0	0
5:30 PM	0	1	15	9	0	33	14	15	0	5	32	46	0	6	32	4	212		0	0	0	0
5:45 PM	0	3	19	3	0	19	21	13	0	5	23	40	0	8	18	7	179		0	0	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Lights	0	24	97	34	0	126	116	56	0	36	154	145	0	43	120	27	978
Mediums	0	0	1	0	0	2	0	1	0	0	1	4	0	2	0	0	11
Total	0	24	98	34	0	128	116	57	0	36	155	149	0	45	121	27	990

Heavy Vehicle Percentage and Peak Hour Factor

	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Heavy Vehicle %		0.6%				1.0%				1.5%				1.6%			1.2%
Heavy Vehicle %	0.0%	0.0%	1.0%	0.0%	0.0%	1.6%	0.0%	1.8%	0.0%	0.0%	0.6%	2.7%	0.0%	4.4%	0.8%	0.0%	1.2%
Peak Hour Factor		0.94				0.96				0.79				0.94			0.90
Peak Hour Factor	0.00	0.86	0.88	0.77	0.00	0.87	0.85	0.88	0.00	0.67	0.81	0.89	0.00	0.81	0.95	0.66	0.90

APPENDIX D
FDOT's Florida Traffic Online (FTO) Data

2021 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL
CATEGORY: 7000 BREVARD COUNTYWIDE

MOCF: 0.95

WEEK	DATES	SF	PSCF
1	01/01/2021 - 01/02/2021	1.02	1.07
2	01/03/2021 - 01/09/2021	1.02	1.07
3	01/10/2021 - 01/16/2021	1.03	1.08
4	01/17/2021 - 01/23/2021	1.02	1.07
5	01/24/2021 - 01/30/2021	1.00	1.05
6	01/31/2021 - 02/06/2021	0.99	1.04
7	02/07/2021 - 02/13/2021	0.98	1.03
* 8	02/14/2021 - 02/20/2021	0.97	1.02
* 9	02/21/2021 - 02/27/2021	0.95	1.00
*10	02/28/2021 - 03/06/2021	0.94	0.99
*11	03/07/2021 - 03/13/2021	0.93	0.98
*12	03/14/2021 - 03/20/2021	0.91	0.96
*13	03/21/2021 - 03/27/2021	0.92	0.97
*14	03/28/2021 - 04/03/2021	0.94	0.99
*15	04/04/2021 - 04/10/2021	0.95	1.00
*16	04/11/2021 - 04/17/2021	0.96	1.01
*17	04/18/2021 - 04/24/2021	0.96	1.01
*18	04/25/2021 - 05/01/2021	0.97	1.02
*19	05/02/2021 - 05/08/2021	0.98	1.03
*20	05/09/2021 - 05/15/2021	0.98	1.03
21	05/16/2021 - 05/22/2021	0.99	1.04
22	05/23/2021 - 05/29/2021	1.00	1.05
23	05/30/2021 - 06/05/2021	1.00	1.05
24	06/06/2021 - 06/12/2021	1.01	1.06
25	06/13/2021 - 06/19/2021	1.01	1.06
26	06/20/2021 - 06/26/2021	1.02	1.07
27	06/27/2021 - 07/03/2021	1.03	1.08
28	07/04/2021 - 07/10/2021	1.04	1.09
29	07/11/2021 - 07/17/2021	1.04	1.09
30	07/18/2021 - 07/24/2021	1.05	1.11
31	07/25/2021 - 07/31/2021	1.06	1.12
32	08/01/2021 - 08/07/2021	1.06	1.12
33	08/08/2021 - 08/14/2021	1.07	1.13
34	08/15/2021 - 08/21/2021	1.07	1.13
35	08/22/2021 - 08/28/2021	1.07	1.13
36	08/29/2021 - 09/04/2021	1.06	1.12
37	09/05/2021 - 09/11/2021	1.05	1.11
38	09/12/2021 - 09/18/2021	1.04	1.09
39	09/19/2021 - 09/25/2021	1.04	1.09
40	09/26/2021 - 10/02/2021	1.03	1.08
41	10/03/2021 - 10/09/2021	1.03	1.08
42	10/10/2021 - 10/16/2021	1.02	1.07
43	10/17/2021 - 10/23/2021	1.03	1.08
44	10/24/2021 - 10/30/2021	1.03	1.08
45	10/31/2021 - 11/06/2021	1.03	1.08
46	11/07/2021 - 11/13/2021	1.03	1.08
47	11/14/2021 - 11/20/2021	1.03	1.08
48	11/21/2021 - 11/27/2021	1.03	1.08
49	11/28/2021 - 12/04/2021	1.03	1.08
50	12/05/2021 - 12/11/2021	1.02	1.07
51	12/12/2021 - 12/18/2021	1.02	1.07
52	12/19/2021 - 12/25/2021	1.02	1.07
53	12/26/2021 - 12/31/2021	1.03	1.08

* PEAK SEASON

APPENDIX E
Turning Movement Volume Worksheets

Intersection Development Worksheet

Kimley»Horn
Expect More. Experience Better.

Intersection #:	1		*Existing Year:*	2022	*TMC Year:* 2022
Major Street:	SR 520	E/W	*Buildout Year:*	2025	
Minor Street:	Courtenay Pkwy	N/S	*Seasonal Factor:*	1.03	

AM Peak Hour Trips: IN = 35 OUT = 116

Weekday AM Peak Hour	Courtenay Pkwy								SR 520							
	Northbound				Southbound				Eastbound				Westbound			
8:00 AM - 9:00 AM	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
TMC (2022)	0	198	471	65	1	213	418	382	0	430	737	195	2	113	478	132
Seasonal Factor		1.03				1.03				1.03				1.03		
Heavy Vehicle (%)	0%	2%	1%	2%	0%	2%	2%	2%	0%	2%	3%	4%	0%	1%	4%	2%
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Existing (2022)	**0**	**204**	**485**	**67**	**1**	**219**	**431**	**393**	**0**	**443**	**759**	**201**	**2**	**116**	**492**	**136**
Growth Rates		2.00%				2.00%				2.00%				2.00%		
Background (2025)	**0**	**216**	**514**	**71**	**1**	**232**	**457**	**417**	**0**	**470**	**805**	**213**	**2**	**123**	**522**	**144**
Project Assignment																
Ingress						9%	10%				26%	9%				
Egress		9%	10%												26%	9%
Project Trips	0	10	12	0	0	3	4	0	0	0	9	3	0	0	30	10
Project Buildout	**0**	**226**	**526**	**71**	**1**	**235**	**461**	**417**	**0**	**470**	**814**	**216**	**2**	**123**	**552**	**154**

PM Peak Hour Trips: IN = 88 OUT = 57

Weekday PM Peak Hour	Courtenay Pkwy								SR 520							
	Northbound				Southbound				Eastbound				Westbound			
4:30 PM - 5:30 PM	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
TMC (2022)	0	333	530	66	0	290	502	461	0	425	815	151	5	123	869	264
Seasonal Factor		1.03				1.03				1.03				1.03		
Heavy Vehicle (%)	0%	2%	2%	0%	0%	0%	0%	1%	0%	0%	1%	1%	0%	1%	2%	1%
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Existing (2022)	**0**	**343**	**546**	**68**	**0**	**299**	**517**	**475**	**0**	**438**	**839**	**156**	**5**	**127**	**895**	**272**
Growth Rates		2.00%				2.00%				2.00%				2.00%		
Background (2025)	**0**	**364**	**578**	**72**	**0**	**317**	**548**	**504**	**0**	**464**	**889**	**165**	**5**	**135**	**949**	**288**
Project Assignment																
Ingress						9%	10%				26%	9%				
Egress		9%	10%												26%	9%
Project Trips	0	5	5	0	0	8	9	0	0	0	23	8	0	0	15	5
Project Buildout	**0**	**369**	**583**	**72**	**0**	**325**	**557**	**504**	**0**	**464**	**912**	**173**	**5**	**135**	**964**	**293**

Intersection Development Worksheet

Kimley»Horn
Expect More. Experience Better.

Intersection #:	2		*Existing Year:*	2022	*TMC Year:* 2022
Major Street:	SR 520	E/W	*Buildout Year:*	2025	
Minor Street:	Plumosa St	N/S	*Seasonal Factor:*	1.03	

AM Peak Hour Trips: IN = 35 OUT = 116

Weekday AM Peak Hour	Plumosa St								SR 520							
	Northbound				Southbound				Eastbound				Westbound			
8:00 AM - 9:00 AM	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
TMC (2022)	0	43	63	40	0	20	70	57	13	66	840	118	3	61	744	32
Seasonal Factor		1.03				1.03				1.03				1.03		
Heavy Vehicle (%)	0%	5%	3%	3%	0%	5%	4%	2%	0%	3%	4%	4%	0%	0%	3%	0%
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Existing (2022)	**0**	**44**	**65**	**41**	**0**	**21**	**72**	**59**	**13**	**68**	**865**	**122**	**3**	**63**	**766**	**33**
Growth Rates		2.00%				2.00%				2.00%				2.00%		
Background (2025)	**0**	**47**	**69**	**43**	**0**	**22**	**76**	**63**	**14**	**72**	**917**	**129**	**3**	**67**	**812**	**35**
Project Assignment																
Ingress							3%					35%				
Egress		35%	3%													
Project Trips	0	40	4	0	0	0	1	0	0	0	0	12	0	0	0	0
Project Buildout	**0**	**87**	**73**	**43**	**0**	**22**	**77**	**63**	**14**	**72**	**917**	**141**	**3**	**67**	**812**	**35**

PM Peak Hour Trips: IN = 88 OUT = 57

Weekday PM Peak Hour	Plumosa St								SR 520							
	Northbound				Southbound				Eastbound				Westbound			
4:15 PM - 5:15 PM	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
TMC (2022)	0	92	91	58	0	54	69	101	23	90	1,128	89	15	68	1,187	93
Seasonal Factor		1.03				1.03				1.03				1.03		
Heavy Vehicle (%)	0%	2%	0%	2%	0%	4%	1%	1%	0%	6%	1%	2%	0%	0%	2%	3%
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	0.97	0.97	0.97	0.97	0.97
Existing (2022)	**0**	**95**	**94**	**60**	**0**	**56**	**71**	**104**	**24**	**93**	**1,162**	**92**	**15**	**70**	**1,223**	**96**
Growth Rates		2.00%				2.00%				2.00%				2.00%		
Background (2025)	**0**	**101**	**99**	**64**	**0**	**60**	**75**	**110**	**25**	**99**	**1,232**	**98**	**16**	**74**	**1,296**	**102**
Project Assignment																
Ingress							3%					35%				
Egress		35%	3%													
Project Trips	0	20	2	0	0	0	2	0	0	0	0	31	0	0	0	0
Project Buildout	**0**	**121**	**101**	**64**	**0**	**60**	**77**	**110**	**25**	**99**	**1,232**	**129**	**16**	**74**	**1,296**	**102**

Intersection Development Worksheet

Kimley»Horn
Expect More. Experience Better.

Intersection #:	3		*Existing Year:*	2022	*TMC Year:* 2022
Major Street:	SR 520	E/W	*Buildout Year:*	2025	
Minor Street:	Skyes Creek Pkwy	N/S	*Seasonal Factor:*	1.03	

AM Peak Hour Trips: IN = 35 OUT = 116

Weekday AM Peak Hour	Skyes Creek Pkwy								SR 520							
	Northbound				Southbound				Eastbound				Westbound			
8:00 AM - 9:00 AM	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
TMC (2022)	0	16	61	111	0	215	70	107	6	116	604	21	0	65	650	246
Seasonal Factor		1.03				1.03				1.03				1.03		
Heavy Vehicle (%)	0%	6%	2%	1%	0%	2%	1%	1%	0%	1%	5%	5%	0%	2%	3%	2%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Existing (2022)	**0**	**16**	**63**	**114**	**0**	**221**	**72**	**110**	**6**	**119**	**622**	**22**	**0**	**67**	**670**	**253**
Growth Rates		2.00%				2.00%				2.00%				2.00%		
Background (2025)	**0**	**17**	**67**	**121**	**0**	**234**	**76**	**117**	**6**	**126**	**659**	**23**	**0**	**71**	**710**	**268**
Project Assignment																
Ingress							6%							22%		
Egress			6%	22%												
Project Trips	0	0	7	25	0	0	2	0	0	0	0	0	0	8	0	0
Project Buildout	**0**	**17**	**74**	**146**	**0**	**234**	**78**	**117**	**6**	**126**	**659**	**23**	**0**	**79**	**710**	**268**

PM Peak Hour Trips: IN = 88 OUT = 57

Weekday PM Peak Hour	Skyes Creek Pkwy								SR 520							
	Northbound				Southbound				Eastbound				Westbound			
4:00 PM - 5:00 PM	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
TMC (2022)	0	58	112	171	0	301	121	149	21	175	817	27	0	133	819	277
Seasonal Factor		1.03				1.03				1.03				1.03		
Heavy Vehicle (%)	0%	0%	2%	2%	0%	1%	3%	1%	0%	1%	1%	0%	0%	2%	3%	3%
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Existing (2022)	**0**	**60**	**115**	**176**	**0**	**310**	**125**	**153**	**22**	**180**	**842**	**28**	**0**	**137**	**844**	**285**
Growth Rates		2.00%				2.00%				2.00%				2.00%		
Background (2025)	**0**	**64**	**121**	**187**	**0**	**329**	**133**	**162**	**23**	**191**	**893**	**30**	**0**	**145**	**895**	**302**
Project Assignment																
Ingress							6%							22%		
Egress			6%	22%												
Project Trips	0	0	3	13	0	0	5	0	0	0	0	0	0	19	0	0
Project Buildout	**0**	**64**	**124**	**200**	**0**	**329**	**138**	**162**	**23**	**191**	**893**	**30**	**0**	**164**	**895**	**302**

Intersection Development Worksheet

Kimley»Horn
Expect More. Experience Better.

Intersection #:	4		*Existing Year:*	2022	*TMC Year:* 2022
Major Street:	Courtenay Pkwy	N/S	*Buildout Year:*	2025	
Minor Street:	Fortenberry Rd	E/W	*Seasonal Factor:*	1.03	

AM Peak Hour Trips: IN = 35 OUT = 116

Weekday AM Peak Hour	Courtenay Pkwy								Fortenberry Rd							
	Northbound				Southbound				Eastbound				Westbound			
8:00 AM - 9:00 AM	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
TMC (2022)	0	1	591	63	0	88	577	0	0	1	0	0	0	40	0	69
Seasonal Factor		1.03				1.03				1.03				1.03		
Heavy Vehicle (%)	0%	0%	2%	2%	0%	0%	4%	0%	0%	0%	0%	0%	0%	5%	0%	4%
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	0.97	0.97	0.97	0.97	0.97
Existing (2022)	**0**	**1**	**609**	**65**	**0**	**91**	**594**	**0**	**0**	**1**	**0**	**0**	**0**	**41**	**0**	**71**
Growth Rates		2.00%				2.00%				2.00%				2.00%		
Background (2025)	**0**	**1**	**646**	**69**	**0**	**96**	**630**	**0**	**0**	**1**	**0**	**0**	**0**	**43**	**0**	**75**
Project Assignment																
Ingress				1%		19%										
Egress														1%		19%
Project Trips	0	0	0	0	0	7	0	0	0	0	0	0	0	1	0	22
Project Buildout	**0**	**1**	**646**	**69**	**0**	**103**	**630**	**0**	**0**	**1**	**0**	**0**	**0**	**44**	**0**	**97**

PM Peak Hour Trips: IN = 88 OUT = 57

Weekday PM Peak Hour	Courtenay Pkwy								Fortenberry Rd							
	Northbound				Southbound				Eastbound				Westbound			
4:45 PM - 5:45 PM	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
TMC (2022)	0	3	677	59	0	61	783	1	0	1	0	2	0	86	0	168
Seasonal Factor		1.03				1.03				1.03				1.03		
Heavy Vehicle (%)	0%	0%	2%	5%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	1%
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Existing (2022)	**0**	**3**	**697**	**61**	**0**	**63**	**806**	**1**	**0**	**1**	**0**	**2**	**0**	**89**	**0**	**173**
Growth Rates		2.00%				2.00%				2.00%				2.00%		
Background (2025)	**0**	**3**	**738**	**65**	**0**	**67**	**854**	**1**	**0**	**1**	**0**	**2**	**0**	**94**	**0**	**183**
Project Assignment																
Ingress				1%		19%										
Egress														1%		19%
Project Trips	0	0	0	1	0	17	0	0	0	0	0	0	0	1	0	10
Project Buildout	**0**	**3**	**738**	**66**	**0**	**84**	**854**	**1**	**0**	**1**	**0**	**2**	**0**	**95**	**0**	**193**

Intersection Development Worksheet

Kimley»Horn
Expect More. Experience Better.

Intersection #:	5		*Existing Year:*	2022	*TMC Year:* 2022
Major Street:	Fortenberry Rd	E/W	*Buildout Year:*	2025	
Minor Street:	Plumosa St	N/S	*Seasonal Factor:*	1.03	

AM Peak Hour Trips: IN = 35 OUT = 116

Weekday AM Peak Hour	Plumosa St								Fortenberry Rd							
	Northbound				Southbound				Eastbound				Westbound			
8:00 AM - 9:00 AM	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
TMC (2022)	0	14	121	119	0	21	164	23	0	12	52	42	0	81	35	20
Seasonal Factor		1.03				1.03				1.03				1.03		
Heavy Vehicle (%)	0%	0%	5%	0%	0%	0%	2%	9%	0%	0%	4%	0%	0%	3%	0%	5%
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Existing (2022)	**0**	**14**	**125**	**123**	**0**	**22**	**169**	**24**	**0**	**12**	**54**	**43**	**0**	**83**	**36**	**21**
Growth Rates		2.00%				2.00%				2.00%				2.00%		
Background (2025)	**0**	**15**	**133**	**130**	**0**	**23**	**179**	**25**	**0**	**13**	**57**	**46**	**0**	**88**	**38**	**22**
Project Assignment																
Ingress				11%		38%					20%					
Egress														11%	20%	38%
Project Trips	0	0	0	4	0	13	0	0	0	0	7	0	0	13	23	44
Project Buildout	**0**	**15**	**133**	**134**	**0**	**36**	**179**	**25**	**0**	**13**	**64**	**46**	**0**	**101**	**61**	**66**

PM Peak Hour Trips: IN = 88 OUT = 57

Weekday PM Peak Hour	Plumosa St								Fortenberry Rd							
	Northbound				Southbound				Eastbound				Westbound			
4:30 PM - 5:30 PM	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
TMC (2022)	0	36	155	149	0	45	121	27	0	24	98	34	0	128	116	57
Seasonal Factor		1.03				1.03				1.03				1.03		
Heavy Vehicle (%)	0%	0%	1%	3%	0%	4%	1%	0%	0%	0%	1%	0%	0%	2%	0%	2%
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Existing (2022)	**0**	**37**	**160**	**153**	**0**	**46**	**125**	**28**	**0**	**25**	**101**	**35**	**0**	**132**	**119**	**59**
Growth Rates		2.00%				2.00%				2.00%				2.00%		
Background (2025)	**0**	**39**	**169**	**162**	**0**	**49**	**133**	**30**	**0**	**27**	**107**	**37**	**0**	**140**	**126**	**63**
Project Assignment																
Ingress				11%		38%					20%					
Egress														11%	20%	38%
Project Trips	0	0	0	10	0	33	0	0	0	0	18	0	0	6	11	22
Project Buildout	**0**	**39**	**169**	**172**	**0**	**82**	**133**	**30**	**0**	**27**	**125**	**37**	**0**	**146**	**137**	**85**

Intersection Development Worksheet

Kimley»Horn
Expect More. Experience Better.

Intersection #:	6		*Existing Year:*	2022	*TMC Year:* 2022
Major Street:	Fortenberry Rd	E/W	*Buildout Year:*	2025	
Minor Street:	Project Drwy #1	N/S	*Seasonal Factor:*	1.03	

AM Peak Hour Trips: IN = 35 OUT = 116

Weekday AM Peak Hour	Project Drwy #1								Fortenberry Rd							
	Northbound				Southbound				Eastbound				Westbound			
8:00 AM - 9:00 AM	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
TMC (2022)	0	0	0	0	0	0	0	0	0	0	192	0	0	0	136	0
Seasonal Factor		1.03				1.03				1.03				1.03		
Heavy Vehicle (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Existing (2022)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**198**	**0**	**0**	**0**	**140**	**0**
Growth Rates		2.00%				2.00%				2.00%				2.00%		
Background (2025)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**210**	**0**	**0**	**0**	**148**	**0**
Project Assignment																
Ingress											23%	46%		10%		
Egress		46%		10%											23%	
Project Trips	0	53	0	11	0	0	0	0	0	0	8	16	0	4	27	0
Project Buildout	**0**	**53**	**0**	**11**	**0**	**0**	**0**	**0**	**0**	**0**	**218**	**16**	**0**	**4**	**175**	**0**

PM Peak Hour Trips: IN = 88 OUT = 57

Weekday PM Peak Hour	Project Drwy #1								Fortenberry Rd							
	Northbound				Southbound				Eastbound				Westbound			
4:30 PM - 5:30 PM	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
TMC (2022)	0	0	0	0	0	0	0	0	0	0	292	0	0	0	301	0
Seasonal Factor		1.03				1.03				1.03				1.03		
Heavy Vehicle (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Existing (2022)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**301**	**0**	**0**	**0**	**310**	**0**
Growth Rates		2.00%				2.00%				2.00%				2.00%		
Background (2025)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**319**	**0**	**0**	**0**	**329**	**0**
Project Assignment																
Ingress											23%	46%		10%		
Egress		46%		10%											23%	
Project Trips	0	26	0	6	0	0	0	0	0	0	20	41	0	9	13	0
Project Buildout	**0**	**26**	**0**	**6**	**0**	**0**	**0**	**0**	**0**	**0**	**339**	**41**	**0**	**9**	**342**	**0**

Intersection Development Worksheet

Kimley»Horn
Expect More. Experience Better.

Intersection #:	7		*Existing Year:*	2022	*TMC Year:* 2022
Major Street:	Fortenberry Rd	E/W	*Buildout Year:*	2025	
Minor Street:	Harbor Woods Bou	N/S	*Seasonal Factor:*	1.03	

AM Peak Hour Trips: IN = 35 OUT = 116

PHF: 0.920

Weekday AM Peak Hour	Fortenberry Rd								Fortenberry Rd							
	Northbound				Southbound				Eastbound				Westbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
TMC (2022)	0	0	0	0	0	0	0	0	0	0	192	0	0	0	136	0
Seasonal Factor		1.03				1.03				1.03				1.03		
Heavy Vehicle (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Existing (2022)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**198**	**0**	**0**	**0**	**140**	**0**
Growth Rates		2.00%				2.00%				2.00%				2.00%		
Background (2025)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**210**	**0**	**0**	**0**	**148**	**0**
Project Assignment																
Ingress												23%		21%	10%	
Egress		23%		21%							10%					
Project Trips	0	27	0	24	0	0	0	0	0	0	11	8	0	7	4	0
Project Buildout	**0**	**27**	**0**	**24**	**0**	**0**	**0**	**0**	**0**	**0**	**221**	**8**	**0**	**7**	**152**	**0**

PM Peak Hour Trips: IN = 88 OUT = 57

PHF: 0.920

Weekday PM Peak Hour	Fortenberry Rd								Fortenberry Rd							
	Northbound				Southbound				Eastbound				Westbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
TMC (2022)	0	0	0	0	0	0	0	0	0	0	292	0	0	0	301	0
Seasonal Factor		1.03				1.03				1.03				1.03		
Heavy Vehicle (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Existing (2022)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**301**	**0**	**0**	**0**	**310**	**0**
Growth Rates		2.00%				2.00%				2.00%				2.00%		
Background (2025)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**319**	**0**	**0**	**0**	**329**	**0**
Project Assignment																
Ingress												23%		21%	10%	
Egress		23%		21%							10%					
Project Trips	0	13	0	12	0	0	0	0	0	0	6	20	0	18	9	0
Project Buildout	**0**	**13**	**0**	**12**	**0**	**0**	**0**	**0**	**0**	**0**	**325**	**20**	**0**	**18**	**338**	**0**

APPENDIX F
Existing Signal Timings

Station : 16 - SR 520 & SR 3 (Courtenay) (Standard File)

Phase [1.1.1]

	1 (EL)	2 (WT)	3 (SL)	4 (NT)	5 (WL)	6 (ET)	7 (NL)	8 (ST)	9	10	11	12	13	14	15	16
Walk	0	7	0	7	0	7	0	7	0	0	0	0	0	0	0	0
Ped Clearance	0	40	0	39	0	31	0	37	0	0	0	0	0	0	0	0
Min Green	6	15	6	8	6	15	6	8	3	0	3	0	3	0	3	0
Gap Ext	3	3	3	3.5	3	3	3	3.5	0	0	0	0	0	0	0	0
Max1	35	60	25	45	25	60	25	45	0	0	0	0	0	0	0	0
Max2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Yellow Clr	4.8	4.8	4.1	4.1	4.8	4.8	4.1	4.1	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Red Clr	3.9	3.9	3.8	3.8	3.9	3.9	3.8	3.8	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Red Revert	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Added Initial	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Initial	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time Before Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Before Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time To Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reduce By	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dynamic Max Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dynamic Max Step	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Auto Flash Entry				ON				ON								
Auto Flash Exit		ON				ON										
Non-Actuated 1																
Non-Actuated 2																
Rest In Walk																

Phase Option [1.1.2]

	1 (EL)	2 (WT)	3 (SL)	4 (NT)	5 (WL)	6 (ET)	7 (NL)	8 (ST)	9	10	11	12	13	14	15	16
Enable	ON	ON	ON	ON	ON	ON	ON	ON								
Lock Call		ON				ON										
Min Recall		ON				ON										
Max Recall																
Ped Recall																
Soft Recall																
Dual Entry		ON		ON		ON		ON								
Sim Gap Enable		ON				ON										
Guar Passage																
Cond Service																
Add Init Calc																

Alternate Phase Program 1, Calls and Redirection [1.1.6.3]

Entry	Call Phases				From	To	From	To	From	To	From	To	Assigned Ph
1	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0	0

Alternate Phase Program 2, Calls and Redirection [1.1.6.3]

Entry	Call Phases				From	To	From	To	From	To	From	To	Assigned Ph
1	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0	0

Alternate Phase Program 1, Interval Times [1.1.6.1]

Phase	Walk	Ped Clear	Min Green	Passage	Max1	Max2	Yellow	Red Clear	Assign Ph	Bike Clear
1	0	0	0	0	0	0	0	0	0	
2	0	0	0	0	0	0	0	0	0	
3	0	0	0	0	0	0	0	0	0	
4	0	0	0	0	0	0	0	0	0	
5	0	0	0	0	0	0	0	0	0	
6	0	0	0	0	0	0	0	0	0	
7	0	0	0	0	0	0	0	0	0	
8	0	0	0	0	0	0	0	0	0	

Alternate Phase Program 2, Interval Times [1.1.6.1]

Phase	Walk	Ped Clear	Min Green	Passage	Max1	Max2	Yellow	Red Clear	Assign Ph	Bike Clear
1	0	0	0	0	0	0	0	0	0	
2	0	0	0	0	0	0	0	0	0	
3	0	0	0	0	0	0	0	0	0	
4	0	0	0	0	0	0	0	0	0	
5	0	0	0	0	0	0	0	0	0	
6	0	0	0	0	0	0	0	0	0	
7	0	0	0	0	0	0	0	0	0	
8	0	0	0	0	0	0	0	0	0	

Prepared By	Date Implemented	Reviewed By	Traffic Engineer

Brevard County Timing Sheet 10/26/2022 9:34:56 AM

Station : 16 - SR 520 & SR 3 (Courtenay) (Standard File)

Unit Parameters [1.2.1]

StartUp Flash	Auto Ped Clear	Red Revert	Local Flash Start	Allow < 3 sec Yel	Allow Skip Yel	MCE Timeout	Enable Run	Start Red Time	Phase Mode	Startup Calls	Diamond Mode	Stop Time Over Preempt	Free Ring Sequence	Clearance Decide	Min Ped Clear Time	RingAlgo

| | | |

Station : 16 - SR 520 & SR 3 (Courtenay) (Standard File)

Detector Alternate Program 1, Vehicle Parameters [5.5.1]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Call Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Switch Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Channels/SDLC, Assign to Phases [1.3.1]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
PH/OLP #	1	2	3	4	5	6	7	8	1	2	3	4	2	4	6	8	1	3	5	7				
Type	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	OLP	OLP	OLP	OLP	PED	PED	PED	PED	PED	PED	PED	PED	VEH	VEH	VEH	VEH
Flash	RED	YEL	RED	RED	RED	YEL	RED	RED	RED	RED	RED	RED	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK
Alt Hz																								
Dimming Green																								
Dimming Yellow																								
Dimming Red																								
Dimming Cyc	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

Channel/SDLC, Parameters [1.3.3]

TOD Dim Enable	Extra Maps Enable	D Connector Enable	Single BIU Map	IO Mode	Preempt or Ext Output
OFF	DEFAULT				

Channel/SDLC, MMU Map [1.3.5]

MMU-to-Controller Channel Map

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

Channel/SDLC, Permissive [1.3.4]

Channel	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2
1															
2															
3															
4															
5															
6															
7															
8															
9															
10															
11															
12															
13															
14															
15															
1															
2															
3															
4															
5															
6															
7															
8															
9															
10															
11															
12															
13															
14															
15															
1															
2															
3															
4															
5															
6															
7															
8															
9															
10															
11															
12															
13															
14															
15															
1															
2															
3															

4
5
6
7
8
9
10
11
12
13
14
15
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
1

2
3
4
5
6
7
8
9
10
11
12
13
14
15
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
1
2
3
4
5
6
7
8
9
10
11
12
13
14

Channel/SDLC, Permissive [1.3.7]

SDLC Device	Term/Fac								Detector								MMU	Diag
BIU#	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8		
Dev Present	ON	ON							ON	ON	ON						ON	
Peer to Peer																		

Ring Sequence [1.2.4]

Ring	P1	P2	P3	P4	P5	P6	P7	P8
Ring 1	1	2	3	4				
Ring 2	5	6	7	8				
Ring 3								
Ring 4								

Station : 16 - SR 520 & SR 3 (Courtenay) (Standard File)

Alarms, Enable Events [1.6.1]

Event#	Event Enable
1	ON
2	ON
3	ON
4	ON
5	ON
6	ON
7	ON
8	ON
9	
10	ON
11	
12	ON
13	ON
14	ON
15	ON
16	ON
17	ON
18	ON
19	ON
20	ON
21	ON
22	ON
23	ON
24	
25	
26	ON
27	ON
28	
29	ON
30	ON
31	
32	
33	
34	
35	
36	
37	ON
38	ON
39	
40	
41	
42	
43	
44	
45	
46	
47	
48	ON
49	
50	
51	
52	
53	
54	
55	
56	
57	
58	
59	
60	ON
61	
62	
63	
64	

Alarms, Enable Alarms [1.6.4]

Alarm#	Alarm Enable
1	ON
2	ON
3	ON
4	ON
5	ON
6	ON
7	ON
8	ON
9	
10	ON
11	
12	ON
13	ON
14	ON
15	ON
16	ON
17	ON
18	ON
19	ON
20	ON
21	ON
22	ON
23	ON
24	
25	
26	ON
27	ON
28	
29	ON
30	ON
31	
32	
33	
34	
35	
36	
37	ON
38	ON
39	
40	
41	
42	
43	
44	
45	
46	
47	
48	ON
49	
50	
51	
52	
53	
54	
55	
56	
57	
58	
59	
60	ON
61	
62	
63	
64	

Preemption Times[3.1]/Phases[3.2]/Options[3.3]

Channel	1	2	3	4	5	6
Lock Input	ON	ON	ON	ON	ON	ON
Override Auto Flash	ON			ON	ON	ON
Override Higher Preempt	ON			ON	ON	ON
Flash in Dwell						
Link to Preempt						
Delay						
Min Duration						
Min Green						
Min Walk						
Ped Clear						
Track Green						
Min Dwell						
Max Presence						
Track Veh 1						
Track Veh 2						
Track Veh 3						
Track Veh 4						
Dwell Cyc Veh 1						
Dwell Cyc Veh 2						
Dwell Cyc Veh 3						
Dwell Cyc Veh 4						
Dwell Cyc Veh 5						
Dwell Cyc Veh 6						
Dwell Cyc Veh 7						
Dwell Cyc Veh 8						
Dwell Cyc Veh 9						
Dwell Cyc Veh 10						
Dwell Cyc Veh 11						
Dwell Cyc Veh 12						
Dwell Cyc Ped1						
Dwell Cyc Ped2						
Dwell Cyc Ped3						
Dwell Cyc Ped4						
Dwell Cyc Ped5						
Dwell Cyc Ped6						
Dwell vPed7						
Dwell Cyc Ped8						
Exit 1						
Exit 2						
Exit 3						
Exit 4						

Alarms, Parameters [1.4.1]

Auto Flash Parameter

Yellow	Red	Mode	Source
45	30		

Alarms, Parameters [1.6.7]

Preempt Event Enabled	Pattern Event Enabled
OFF	OFF

Alarms, Phases/Overlaps [1.4.2]

Auto Flash	1	2	3	4	5	6	7	8	9	10	11	12
Phases	2	6										
Overlaps												

Station : 16 - SR 520 & SR 3 (Courtenay) (Standard File)

Preemption Times+[3.4]/Overlaps+[3.5]/Options+[3.6]

Preempt	1	2	3	4	5	6
Enable						
Type	EMERG	EMERG	EMERG	EMERG	EMERG	EMERG
Skip Track						
Volt Mon Flash						
Coord in Preempt	ON	ON				
Return Max/Min	MAX	MAX	MAX	MAX	MAX	MAX
Extend Dwell						
Pattern						
Output Mode	TS2	TS2	TS2	TS2	TS2	TS2
Track Over 1						
Track Over 2						
Track Over 3						
Track Over 4						
Track Over 5						
Track Over 6						
Track Over 7						
Track Over 8						
Track Over 9						
Track Over 10						
Track Over 11						
Track Over 12						
DwellCyc Over 1						
DwellCyc Over 2						
DwellCyc Over 3						
DwellCyc Over 4						
DwellCyc Over 5						
DwellCyc Over 6						
DwellCyc Over 7						
DwellCyc Over 8						
DwellCyc Over 9						
DwellCyc Over 10						
DwellCyc Over 11						
DwellCyc Over 12						
Ped Clear						
Yellow						
Red						
Return Max						

Coordination, Modes,+ [2.1]

Modes

Operational	Correct	Maximum	Force-Off
	SHRT/LNG	MAX INH	FIXED

Modes+

Mode	Leave Before	Leave After	Recycle	Stop In Walk	External	Auto Reset	Latch Sec Foff	Coord Easy Float	Yield Value	Coord NTCIP Yield Sign	Closed Loop Active	
RESERVED	TIMED	TIMED	P3478_INH	ON	OFF	ON	OFF	OFF	0	+	ON	OFF

Coordination, Pattern 1-16 [2.1]

Pattern	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Cycle Time	150	160	160	140	80						120	150	160	150		
Offset Time	37	17	20	92	75						52	84	155	84		
Split Number	1	2	3	4	5	6	7	8			11	12	13	14		
Seq Number	3	2	3	2	1	1	1	1			1	1	1	1		1
Offset	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn

Coordination, Pattern 17-32 [2.1]

Pattern	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Cycle Time										200				120	120	
Offset Time										103						
Split Number	17	18	19	20	21	22	23	24		26				30	31	
Seq Number	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	1
Offset	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn

Station : 16 - SR 520 & SR 3 (Courtenay) (Standard File)

Coordination, Splits [2.7.1]

Split Table 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	38	56	21	35	23	71	21	35								
Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
Coord Phase						ON										

Split Table 2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	34	59	28	39	19	74	28	39								
Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
Coord Phase		ON														

Split Table 3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	37	56	25	42	22	71	27	40								
Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
Coord Phase						ON										

Split Table 4	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	28	59	21	32	19	68	22	31								
Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
Coord Phase		ON														

Split Table 5	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	18	25	16	21	16	27	16	21								
Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
Coord Phase		ON														

Split Table 6	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase		ON														

Split Table 7	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 8	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 9	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 10	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 11	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	29	30	23	38	16	43	23	38								
Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
Coord Phase		ON														

Split Table 12	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	24	56	40	30	20	60	27	43								
Mode	NON	MXP	NON	NON	NON	MXP	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
Coord Phase		ON														

Brevard County | Timing Sheet | 10/26/2022 9:34:56 AM

Station : 16 - SR 520 & SR 3 (Courtenay) (Standard File)

Split Table 13	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	34	54	30	42	16	72	24	48								
Mode	NON	MXP	NON	NON	NON	MXP	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
Coord Phase		ON														

Split Table 14	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	24	66	30	30	16	74	22	38								
Mode	NON	MXP	NON	NON	NON	MXP	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
Coord Phase		ON														

Split Table 15	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 16	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase		ON														

Split Table 17	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 18	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 19	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 20	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 21	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 22	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 23	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 24	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 25	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 26	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	34	105	22	39	19	120	22	39								
Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase		ON														

Split Table 27	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 28	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 29	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 30	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	20	50	20	30	20	50	20	30								
Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase		ON														

Split Table 31	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	20	50	20	30	20	50	20	30								
Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase						ON										

Split Table 32	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Station : 16 - SR 520 & SR 3 (Courtenay) (Standard File)

TB Coor, Advanced Scheduler [4.3]

	Month												Day of Week							Day of Month									1									2									3		
Plan	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	Day Plan
1	1	1	1	1	1	1	1	1	1	1	1	1		1	1	1	1	1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	1	1	1	1	1	1							1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
3	1	1	1	1	1	1	1	1	1	1	1	1	1							1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		1	1	1	1	1	1	1	1	3
4																																																	1
5																																																	1
6																																																	1
7																																																	1
8																																																	1
9																																																	1
10																																																	1
11																																																	1
12																																																	1
13																																																	1
14																																																	1
15																																																	1
16																																																	1
17																																																	1
18																																																	1
19																																																	1
20																																																	1
21																																																	1
22																																																	1
23																																																	1
24																																																	1
25																																																	1
26																																																	1
27																																																	1
28																																																	1
29																																																	1
30																																																	1
31																																																	1
32																																																	1

TB Coor, Day Plan [4.4]

Day Plan Table 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour		7	9	13	18	19										
Minute		30	30	30		45										
Action	100	1	2	3	4	100										

Day Plan Table 2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour		7	9	19	22											
Minute																
Action	100	5	2	5	100											

Day Plan Table 3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour		7	9	19	22											
Minute																
Action	100	5	2	5	100											

Day Plan Table 4	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 5	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour		*														
Minute																
Action																

Day Plan Table 6	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Brevard County | Timing Sheet | 10/26/2022 9:34:56 AM

Station : 16 - SR 520 & SR 3 (Courtenay) (Standard File)

Day Plan Table 7	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 8	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 9	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 10	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 11	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 12	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Station : 16 - SR 520 & SR 3 (Courtenay) (Standard File)

TB Coor, Action Table [4.5]

Action	Pattern	Aux 1	Aux 2	Aux 3	Special 1	Special 2	Special 3	Special 4	Special 5	Special 6	Special 7	Special 8
1	1				0	0						
2	2				0	0						
3	3				0	0						
4	4				0	0						
5	5				0	0						
6	6				0	0						
7	7				0	0						
8	8				0	0						
9	9				0	0						
10	10				0	0						
11	11				0	0						
12	12				0	0						
13	13				0	0						
14	14				0	0						
15	15				0	0						
16	16				0	0						
17	17				0	0						
18	18				0	0						
19	19				0	0						
20	20				0	0						
21	21				0	0						
22	22				0	0						
23	23				0	0						
24	24				0	0						
25	25				0	0						
26	26				0	0						
27	27				0	0						
28	28				0	0						
29	29				0	0						
30	30				0	0						
31	31				0	0						
32	32				0	0						
33	33				0	0						
34	34				0	0						
35	35				0	0						
36	36				0	0						
37	37				0	0						
38	38				0	0						
39	39				0	0						
40	40				0	0						
41	41				0	0						
42	42				0	0						
43	43				0	0						
44	44				0	0						
45	45				0	0						
46	46				0	0						
47	47				0	0						
48	48				0	0						
49					0	0						
50					0	0						
51					0	0						
52					0	0						
53					0	0						
54					0	0						
55					0	0						
56					0	0						
57					0	0						
58					0	0						
59					0	0						
60					0	0						
61					0	0						
62					0	0						
63					0	0						
64					0	0						
99	255				0	0						
100	254				0	0						

Station : 17 - SR 520 & Plumosa Ave (Standard File)

Phase [1.1.1]

	1 (EL)	2 (WT)	3 (SL)	4 (NT)	5 (WL)	6 (ET)	7 (NL)	8 (ST)	9	10	11	12	13	14	15	16
Walk	0	7	0	7	0	7	0	7	0	0	0	0	0	0	0	0
Ped Clearance	0	18	0	34	0	18	0	33	0	0	0	0	0	0	0	0
Min Green	6	15	6	8	6	15	6	8	3	0	3	0	3	0	3	0
Gap Ext	3	3	3	4	3	3	3	4	0	0	0	0	0	0	0	0
Max1	25	60	25	30	25	60	25	30	0	0	0	0	0	0	0	0
Max2	75	150	75	150	75	150	75	150	0	0	0	0	0	0	0	0
Yellow Clr	4.8	4.8	4	4	4.8	4.8	4	4	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Red Clr	2.3	2.3	3.4	3.4	2.3	2.3	3.4	3.4	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Red Revert	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Added Initial	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Initial	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time Before Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Before Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time To Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reduce By	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dynamic Max Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dynamic Max Step	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Auto Flash Entry				ON				ON								
Auto Flash Exit		ON				ON										
Non-Actuated 1																
Non-Actuated 2																
Rest In Walk																

Phase Option [1.1.2]

	1 (EL)	2 (WT)	3 (SL)	4 (NT)	5 (WL)	6 (ET)	7 (NL)	8 (ST)	9	10	11	12	13	14	15	16
Enable	ON	ON	ON	ON	ON	ON	ON	ON								
Lock Call		ON				ON										
Min Recall		ON				ON										
Max Recall																
Ped Recall																
Soft Recall																
Dual Entry		ON		ON		ON		ON								
Sim Gap Enable		ON				ON										
Guar Passage																
Cond Service																
Add Init Calc																

Alternate Phase Program 1, Calls and Redirection [1.1.6.3]

Entry	Call Phases				From	To	From	To	From	To	From	To	Assigned Ph
1	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0	0

Alternate Phase Program 2, Calls and Redirection [1.1.6.3]

Entry	Call Phases				From	To	From	To	From	To	From	To	Assigned Ph
1	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0	0

Alternate Phase Program 1, Interval Times [1.1.6.1]

Phase	Walk	Ped Clear	Min Green	Passage	Max1	Max2	Yellow	Red Clear	Assign Ph	Bike Clear
1	0	0	0	0	0	0	0	0	0	
2	0	0	0	0	0	0	0	0	0	
3	0	0	0	0	0	0	0	0	0	
4	0	0	0	0	0	0	0	0	0	
5	0	0	0	0	0	0	0	0	0	
6	0	0	0	0	0	0	0	0	0	
7	0	0	0	0	0	0	0	0	0	
8	0	0	0	0	0	0	0	0	0	

Alternate Phase Program 2, Interval Times [1.1.6.1]

Phase	Walk	Ped Clear	Min Green	Passage	Max1	Max2	Yellow	Red Clear	Assign Ph	Bike Clear
1	0	0	0	0	0	0	0	0	0	
2	0	0	0	0	0	0	0	0	0	
3	0	0	0	0	0	0	0	0	0	
4	0	0	0	0	0	0	0	0	0	
5	0	0	0	0	0	0	0	0	0	
6	0	0	0	0	0	0	0	0	0	
7	0	0	0	0	0	0	0	0	0	
8	0	0	0	0	0	0	0	0	0	

Prepared By	Date Implemented	Reviewed By	Traffic Engineer

Brevard County Timing Sheet 10/26/2022 9:35:27 AM

Station : 17 - SR 520 & Plumosa Ave (Standard File)

Unit Parameters [1.2.1]

StartUp Flash	Auto Ped Clear	Red Revert	Local Flash Start	Allow < 3 sec Yel	Allow Skip Yel	MCE Timeout	Enable Run	Start Red Time	Phase Mode	Startup Calls	Diamond Mode	Stop Time Over Preempt	Free Ring Sequence	Clearance Decide	Min Ped Clear Time	RingAlgo

	OFF	5	OFF	OFF	OFF		ON		STD8	OFF	4PH	OFF	1	OFF	OFF	

Comm, General Comm Parameters [6.1]

Station ID	Master Station ID	Fallback time	Allow Pencil	Port	System-Up	Sys-Down	PC/Print	Aux 232
17								

Port Parameters [6.2]

Comm	Mode	Baud	MsgTime	Duplex	Enable	DialTime	Modem	ModemTime	Tel#1	Tel#2
System Up(P-A)										
System Down(P-B)										
PC/Print(P-2)										

Overlap General Parameters [1.5.1]

Conflict Lock	Lock Inhibit	Program Card	Use Parent	Canadian Fast Flash
OFF	OFF	ON	ALWAYS	

Overlap Program Parameters [1.5.2.1]

Overlap	Included Phases								Modifer Phases								Type	Green	Yellow	Red
Overlap 1																	NORMAL		3.5	1.5
Overlap 2																	FYA-4		3.5	1.5
Overlap 3																	NORMAL		3.5	1.5
Overlap 4	3								4								FYA-4		4	3.4
Overlap 5																	NORMAL		3.5	1.5
Overlap 6																	FYA-4		3.5	1.5
Overlap 7																	NORMAL		3.5	1.5
Overlap 8	7								8								FYA-4		4	3.4

Overlap Conflict Parameters+ [1.5.2.2]

Overlap	Conflicting Phases								Conflicting Overlaps								Conflicting Peds							
Overlap 1																								
Overlap 2																								
Overlap 3																								
Overlap 4																								
Overlap 5																								
Overlap 6																								
Overlap 7																								
Overlap 8																								

Detector, Vehicle Parameters 1-16 [5.1]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Call Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Switch Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Detector, Vehicle Parameters 17-32 [5.1]

	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Call Phase	1	2	3	4	5	6	7	8	0	0	0	0	0	0	0	0
Switch Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Time	0	0	0	4	0	0	0	4	0	0	0	0	0	0	0	0

Station : 17 - SR 520 & Plumosa Ave (Standard File)

Detector Alternate Program 1, Vehicle Parameters [5.5.1]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Call Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Switch Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Channels/SDLC, Assign to Phases [1.3.1]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
PH/OLP #	1	2	4	4	5	6	8	8	1	2	3	4	2	4	6	8	1	3	5	7				
Type	VEH	VEH	OLP	VEH	VEH	VEH	OLP	VEH	OLP	OLP	OLP	OLP	PED	PED	PED	PED	PED	PED	PED	PED	VEH	VEH	VEH	VEH
Flash	RED	YEL	RED	RED	RED	YEL	RED	RED	RED	RED	RED	RED	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK
Alt Hz																								
Dimming Green																								
Dimming Yellow																								
Dimming Red																								
Dimming Cyc	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

Channel/SDLC, Parameters [1.3.3]

TOD Dim Enable	Extra Maps Enable	D Connector Enable	Single BIU Map	IO Mode	Preempt or Ext Output
OFF	DEFAULT				

Channel/SDLC, MMU Map [1.3.5]

MMU-to-Controller Channel Map

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

Channel/SDLC, Permissive [1.3.4]

Channel	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2
1															
2															
3															
4															
5															
6															
7															
8															
9															
10															
11															
12															
13															
14															
15															
1															
2															
3															
4															
5															
6															
7															
8															
9															
10															
11															
12															
13															
14															
15															
1															
2															
3															

4
5
6
7
8
9
10
11
12
13
14
15
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
1

2
3
4
5
6
7
8
9
10
11
12
13
14
15
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
1
2
3
4
5
6
7
8
9
10
11
12
13
14

Channel/SDLC, Permissive [1.3.7]

SDLC Device	Term/Fac								Detector								MMU	Diag
BIU#	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8		
Dev Present	ON	ON								ON							ON	
Peer to Peer																		

Ring Sequence [1.2.4]

Ring	P1	P2	P3	P4	P5	P6	P7	P8
Ring 1	1	2	3	4				
Ring 2	5	6	7	8				
Ring 3								
Ring 4								

Station : 17 - SR 520 & Plumosa Ave (Standard File)

Alarms, Enable Events [1.6.1]

Event#	Event Enable
1	ON
2	ON
3	ON
4	ON
5	ON
6	ON
7	ON
8	ON
9	
10	ON
11	
12	ON
13	ON
14	ON
15	ON
16	ON
17	ON
18	ON
19	ON
20	ON
21	ON
22	ON
23	ON
24	
25	
26	ON
27	ON
28	
29	ON
30	ON
31	
32	
33	
34	
35	
36	
37	ON
38	ON
39	
40	
41	
42	
43	
44	
45	
46	
47	
48	ON
49	
50	
51	
52	
53	
54	
55	
56	
57	
58	
59	
60	ON
61	
62	
63	
64	

Alarms, Enable Alarms [1.6.4]

Alarm#	Alarm Enable
1	ON
2	ON
3	ON
4	ON
5	ON
6	ON
7	ON
8	ON
9	
10	ON
11	
12	ON
13	ON
14	ON
15	ON
16	ON
17	ON
18	ON
19	ON
20	ON
21	ON
22	ON
23	ON
24	
25	
26	ON
27	ON
28	
29	ON
30	ON
31	
32	
33	
34	
35	
36	
37	ON
38	ON
39	
40	
41	
42	
43	
44	
45	
46	
47	
48	ON
49	
50	
51	
52	
53	
54	
55	
56	
57	
58	
59	
60	ON
61	
62	
63	
64	

Preemption Times[3.1]/Phases[3.2]/Options[3.3]

Channel	1	2	3	4	5	6
Lock Input	ON	ON	ON	ON	ON	ON
Override Auto Flash	ON					
Override Higher Preempt	ON					
Flash in Dwell						
Link to Preempt						
Delay			1	1	1	1
Min Duration						
Min Green		5	5	5	5	5
Min Walk		3	3	3	3	3
Ped Clear		255	255	255	255	255
Track Green						
Min Dwell		5	5	5	5	5
Max Presence		240	240	240	240	240
Track Veh 1						
Track Veh 2						
Track Veh 3						
Track Veh 4						
Dwell Cyc Veh 1						
Dwell Cyc Veh 2						
Dwell Cyc Veh 3						
Dwell Cyc Veh 4						
Dwell Cyc Veh 5						
Dwell Cyc Veh 6						
Dwell Cyc Veh 7						
Dwell Cyc Veh 8						
Dwell Cyc Veh 9						
Dwell Cyc Veh 10						
Dwell Cyc Veh 11						
Dwell Cyc Veh 12						
Dwell Cyc Ped1						
Dwell Cyc Ped2						
Dwell Cyc Ped3						
Dwell Cyc Ped4						
Dwell Cyc Ped5						
Dwell Cyc Ped6						
Dwell vPed7						
Dwell Cyc Ped8						
Exit 1						
Exit 2						
Exit 3						
Exit 4						

Alarms, Parameters [1.4.1]

Auto Flash Parameter

Yellow	Red	Mode	Source
45	30		

Alarms, Parameters [1.6.7]

Preempt Event Enabled	Pattern Event Enabled
OFF	OFF

Alarms, Phases/Overlaps [1.4.2]

Auto Flash	1	2	3	4	5	6	7	8	9	10	11	12
Phases	2	6										
Overlaps												

Station : 17 - SR 520 & Plumosa Ave (Standard File)

Preemption Times+[3.4]/Overlaps+[3.5]/Options+[3.6]

Preempt	1	2	3	4	5	6
Enable		ON	ON			
Type	RAIL	EMERG	EMERG	EMERG	EMERG	EMERG
Skip Track						
Volt Mon Flash						
Coord in Preempt	ON	ON				
Return Max/Min	MAX	MAX	MAX	MAX	MAX	MAX
Extend Dwell						
Pattern						
Output Mode	TS2	TS2	TS2	TS2	TS2	TS2
Track Over 1						
Track Over 2						
Track Over 3						
Track Over 4						
Track Over 5						
Track Over 6						
Track Over 7						
Track Over 8						
Track Over 9						
Track Over 10						
Track Over 11						
Track Over 12						
DwellCyc Over 1						
DwellCyc Over 2						
DwellCyc Over 3						
DwellCyc Over 4						
DwellCyc Over 5						
DwellCyc Over 6						
DwellCyc Over 7						
DwellCyc Over 8						
DwellCyc Over 9						
DwellCyc Over 10						
DwellCyc Over 11						
DwellCyc Over 12						
Ped Clear						
Yellow		4	4			
Red		2	2			
Return Max						

Coordination, Modes,+ [2.1]

Modes

Operational	Correct	Maximum	Force-Off
	SHRT/LNG	MAX INH	FIXED

Modes+

Mode	Leave Before	Leave After	Recycle	Stop In Walk	External	Auto Reset	Latch Sec Foff	Coord Easy Float	Yield Value	Coord NTCIP Yield Sign	Closed Loop Active	
RESERVED	TIMED	TIMED	P3478_INH	ON	OFF	ON	OFF	OFF	0	+	ON	OFF

Coordination, Pattern 1-16 [2.1]

Pattern	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Cycle Time	150	160	160	140	80						120	150	160			
Offset Time	111	37	102	103	40						5	148	71			
Split Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Seq Number	2	3	2	3	1	1	1	1	1	1	1	1	2	1	1	1
Offset	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn

Coordination, Pattern 17-32 [2.1]

Pattern	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Cycle Time										200				120	120	
Offset Time										23						
Split Number	17	18	19	20	21	22	23	24		26				30	31	
Seq Number	1	1	1	1	1	1	1	1	1	2	1	1	1	2	2	1
Offset	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn

Brevard County | Timing Sheet | 10/26/2022 9:35:27 AM

Station : 17 - SR 520 & Plumosa Ave (Standard File)

Coordination, Splits [2.7.1]

Split Table 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	24	81	18	27	24	81	20	25								
Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase		ON														

Split Table 2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	26	87	17	30	20	93	22	25								
Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase						ON										

Split Table 3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	30	75	20	35	22	83	25	30								
Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase		ON														

Split Table 4	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	20	79	17	24	18	81	17	24								
Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase						ON										

Split Table 5	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	17	30	15	18	16	31	15	18								
Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase		ON														

Split Table 6	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase		ON														

Split Table 7	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 8	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 9	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 10	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 11	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	20	49	19	32	22	47	19	32								
Mode	NON	MXP	NON	NON	NON	MXP	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase		ON														

Split Table 12	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	24	68	19	39	26	66	19	39								
Mode	NON	MXP	NON	NON	NON	MXP	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase		ON														

Brevard County | Timing Sheet | 10/26/2022 9:35:27 AM

Station : 17 - SR 520 & Plumosa Ave (Standard File)

Split Table 13	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	24	73	18	45	30	67	21	42								
Mode	NON	MXP	NON	NON	NON	MXP	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase		ON														

Split Table 14	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
Coord Phase		ON														

Split Table 15	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 16	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 17	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 18	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 19	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 20	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 21	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 22	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 23	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 24	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 25	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 26	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	26	127	17	30	20	133	22	25								
Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase						ON										

Split Table 27	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 28	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 29	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 30	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	20	50	20	30	20	50	20	30								
Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase		ON														

Split Table 31	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	20	50	20	30	20	50	20	30								
Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase		ON														

Split Table 32	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Station : 17 - SR 520 & Plumosa Ave (Standard File)

TB Coor, Advanced Scheduler [4.3]

	Month												Day of Week							Day of Month										1										2										3		
Plan	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	Day Plan
1	1	1	1	1	1	1	1	1	1	1	1	1		1	1	1	1	1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	1	1	1	1	1	1							1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
3	1	1	1	1	1	1	1	1	1	1	1	1	1							1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3
4																																																	4
5																																																		1
6																																																		1
7																																																		1
8																																																		1
9																																																		1
10																																																		1
11																																																		1
12																																																		1
13																																																		1
14																																																		1
15																																																		1
16																																																		1
17																																																		1
18																																																		1
19																																																		1
20																																																		1
21																																																		1
22																																																		1
23																																																		1
24																																																		1
25																																																		1
26																																																		1
27																																																		1
28																																																		1
29																																																		1
30																																																		1
31																																																		1
32																																																		1

TB Coor, Day Plan [4.4]

Day Plan Table 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour		7	9	13	18	19										
Minute		30	30	30		45										
Action	100	1	2	3	4	100										

Day Plan Table 2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour		7	9	19	22											
Minute																
Action	100	5	2	5	100											

Day Plan Table 3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour		7	9	19	22											
Minute																
Action	100	5	2	5	100											

Day Plan Table 4	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 5	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 6	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Brevard County | Timing Sheet | 10/26/2022 9:35:27 AM

Station : 17 - SR 520 & Plumosa Ave (Standard File)

Day Plan Table 7	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 8	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 9	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 10	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 11	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 12	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Station : 17 - SR 520 & Plumosa Ave (Standard File)

TB Coor, Action Table [4.5]

Action	Pattern	Aux 1	Aux 2	Aux 3	Special 1	Special 2	Special 3	Special 4	Special 5	Special 6	Special 7	Special 8
1	1				0	0						
2	2				0	0						
3	3				0	0						
4	4				0	0						
5	5				0	0						
6	6				0	0						
7	7				0	0						
8	8				0	0						
9	9				0	0						
10	10				0	0						
11	11				0	0						
12	12				0	0						
13	13				0	0						
14	14				0	0						
15	15				0	0						
16	16				0	0						
17	17				0	0						
18	18				0	0						
19	19				0	0						
20	20				0	0						
21	21				0	0						
22	22				0	0						
23	23				0	0						
24	24				0	0						
25	25				0	0						
26	26				0	0						
27	27				0	0						
28	28				0	0						
29	29				0	0						
30	30				0	0						
31	31				0	0						
32	32				0	0						
33	33				0	0						
34	34				0	0						
35	35				0	0						
36	36				0	0						
37	37				0	0						
38	38				0	0						
39	39				0	0						
40	40				0	0						
41	41				0	0						
42	42				0	0						
43	43				0	0						
44	44				0	0						
45	45				0	0						
46	46				0	0						
47	47				0	0						
48	48				0	0						
49					0	0						
50					0	0						
51					0	0						
52					0	0						
53					0	0						
54					0	0						
55					0	0						
56					0	0						
57					0	0						
58					0	0						
59					0	0						
60					0	0						
61					0	0						
62					0	0						
63					0	0						
64					0	0						
99	255				0	0						
100	254				0	0						

Station : 19 - SR 520 & Sykes Creek Pkwy (Standard File)

Phase [1.1.1]

	1 (EL)	2 (WT)	3 (SL)	4 (NT)	5 (WL)	6 (ET)	7 (NL)	8 (ST)	9	10	11	12	13	14	15	16
Walk	0	7	0	7	0	7	0	7	0	0	0	0	0	0	0	0
Ped Clearance	0	36	0	52	0	42	0	39	0	0	0	0	0	0	0	0
Min Green	6	15	6	8	6	15	6	8	3	0	3	0	3	0	3	0
Gap Ext	3	3	3	3	3.5	3	3	3.5	0	0	0	0	0	0	0	0
Max1	20	70	45	25	30	70	15	45	0	0	0	0	0	0	0	0
Max2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Yellow Clr	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Red Clr	3.5	3.5	3.6	3.6	3.5	3.5	3.6	3.6	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Red Revert	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Added Initial	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Initial	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time Before Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Before Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time To Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reduce By	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dynamic Max Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dynamic Max Step	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Auto Flash Entry				ON				ON								
Auto Flash Exit		ON				ON										
Non-Actuated 1																
Non-Actuated 2																
Rest In Walk																

Phase Option [1.1.2]

	1 (EL)	2 (WT)	3 (SL)	4 (NT)	5 (WL)	6 (ET)	7 (NL)	8 (ST)	9	10	11	12	13	14	15	16
Enable	ON	ON	ON	ON	ON	ON	ON	ON								
Lock Call		ON				ON										
Min Recall							ON									
Max Recall		ON				ON										
Ped Recall																
Soft Recall																
Dual Entry		ON		ON		ON		ON								
Sim Gap Enable		ON				ON										
Guar Passage																
Cond Service																
Add Init Calc																

Alternate Phase Program 1, Calls and Redirection [1.1.6.3]

Entry	Call Phases				From	To	From	To	From	To	From	To	Assigned Ph
1	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0	0

Alternate Phase Program 2, Calls and Redirection [1.1.6.3]

Entry	Call Phases				From	To	From	To	From	To	From	To	Assigned Ph
1	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0	0

Alternate Phase Program 1, Interval Times [1.1.6.1]

Phase	Walk	Ped Clear	Min Green	Passage	Max1	Max2	Yellow	Red Clear	Assign Ph	Bike Clear
1	0	0	0	0	0	0	0	0	0	
2	0	0	0	0	0	0	0	0	0	
3	0	0	0	0	0	0	0	0	0	
4	0	0	0	0	0	0	0	0	0	
5	0	0	0	0	0	0	0	0	0	
6	0	0	0	0	0	0	0	0	0	
7	0	0	0	0	0	0	0	0	0	
8	0	0	0	0	0	0	0	0	0	

Alternate Phase Program 2, Interval Times [1.1.6.1]

Phase	Walk	Ped Clear	Min Green	Passage	Max1	Max2	Yellow	Red Clear	Assign Ph	Bike Clear
1	0	0	0	0	0	0	0	0	0	
2	0	0	0	0	0	0	0	0	0	
3	0	0	0	0	0	0	0	0	0	
4	0	0	0	0	0	0	0	0	0	
5	0	0	0	0	0	0	0	0	0	
6	0	0	0	0	0	0	0	0	0	
7	0	0	0	0	0	0	0	0	0	
8	0	0	0	0	0	0	0	0	0	

Prepared By	Date Implemented	Reviewed By	Traffic Engineer

Brevard County Timing Sheet 10/26/2022 9:35:44 AM

Station : 19 - SR 520 & Sykes Creek Pkwy (Standard File)

Unit Parameters [1.2.1]

StartUp Flash	Auto Ped Clear	Red Revert	Local Flash Start	Allow < 3 sec Yel	Allow Skip Yel	MCE Timeout	Enable Run	Start Red Time	Phase Mode	Startup Calls	Diamond Mode	Stop Time Over Preempt	Free Ring Sequence	Clearance Decide	Min Ped Clear Time	RingAlgo

	OFF	3	OFF	OFF	OFF		ON		STD8	OFF	4PH	OFF	1	OFF	OFF	

Comm, General Comm Parameters [6.1]

Station ID	Master Station ID	Fallback time	Allow Pencil	Port	System-Up	Sys-Down	PC/Print	Aux 232
19								

Port Parameters [6.2]

Comm	Mode	Baud	MsgTime	Duplex	Enable	DialTime	Modem	ModemTime	Tel#1	Tel#2
System Up(P-A)										
System Down(P-B)										
PC/Print(P-2)										

Overlap General Parameters [1.5.1]

Conflict Lock	Lock Inhibit	Program Card	Use Parent	Canadian Fast Flash
OFF	OFF	OFF	ALWAYS	

Overlap Program Parameters [1.5.2.1]

Overlap	Included Phases								Modifer Phases								Type	Green	Yellow	Red
Overlap 1	3	2							2								FYA-4		4.8	3.6
Overlap 2	4	5															NORMAL		4.8	3.6
Overlap 3																	NORMAL		3.5	1.5
Overlap 4																	NORMAL		3.5	1.5
Overlap 5																	NORMAL		3.5	1.5
Overlap 6																	NORMAL		3.5	1.5
Overlap 7																	NORMAL		3.5	1.5
Overlap 8																	NORMAL		3.5	1.5

Overlap Conflict Parameters+ [1.5.2.2]

Overlap	Conflicting Phases								Conflicting Overlaps								Conflicting Peds							
Overlap 1	1																2	4						
Overlap 2																	4							
Overlap 3																								
Overlap 4																								
Overlap 5																								
Overlap 6																								
Overlap 7																								
Overlap 8																								

Detector, Vehicle Parameters 1-16 [5.1]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Call Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Switch Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Detector, Vehicle Parameters 17-32 [5.1]

	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Call Phase	1	2	3	4	5	6	7	8	0	0	0	0	0	0	0	0
Switch Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Station : 19 - SR 520 & Sykes Creek Pkwy (Standard File)

Detector Alternate Program 1, Vehicle Parameters [5.5.1]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Call Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Switch Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Channels/SDLC, Assign to Phases [1.3.1]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
PH/OLP #	1	2	3	4	5	6	7	8	1	2	6	4	2	4		8	1	3	5	7				
Type	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	OLP	OLP	PED	OLP	PED	PED	VEH	PED	PED	PED	PED	PED	VEH	VEH	VEH	VEH
Flash	RED	YEL	RED	RED	RED	YEL	RED	RED	RED	RED	DRK	RED	DRK	DRK	RED	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK
Alt Hz																								
Dimming Green																								
Dimming Yellow																								
Dimming Red																								
Dimming Cyc	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

Channel/SDLC, Parameters [1.3.3]

TOD Dim Enable	Extra Maps Enable	D Connector Enable	Single BIU Map	IO Mode	Preempt or Ext Output
OFF	DEFAULT				

Channel/SDLC, MMU Map [1.3.5]

MMU-to-Controller Channel Map

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

Channel/SDLC, Permissive [1.3.4]

Channel	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2
1															
2															
3															
4															
5															
6															
7															
8															
9															
10															
11															
12															
13															
14															
15															
1															
2															
3															
4															
5															
6															
7															
8															
9															
10															
11															
12															
13															
14															
15															
1															
2															
3															
4															
5															
6															
7															
8															
9															
10															
11															
12															
13															
14															
15															
1															
2															
3															

4
5
6
7
8
9
10
11
12
13
14
15
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
1

2
3
4
5
6
7
8
9
10
11
12
13
14
15
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
1
2
3
4
5
6
7
8
9
10
11
12
13
14

Channel/SDLC, Permissive [1.3.7]

SDLC Device	Term/Fac								Detector								MMU	Diag
BIU#	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8		
Dev Present	ON	ON								ON	ON	ON					ON	
Peer to Peer																		

Ring Sequence [1.2.4]

Ring	P1	P2	P3	P4	P5	P6	P7	P8
Ring 1	1	2	3	4				
Ring 2	5	6	7	8				
Ring 3								
Ring 4								

Station : 19 - SR 520 & Sykes Creek Pkwy (Standard File)

Alarms, Enable Events [1.6.1]

Event#	Event Enable
1	ON
2	ON
3	ON
4	ON
5	ON
6	ON
7	ON
8	ON
9	
10	ON
11	
12	ON
13	ON
14	ON
15	ON
16	ON
17	ON
18	ON
19	ON
20	ON
21	ON
22	ON
23	ON
24	
25	
26	ON
27	ON
28	ON
29	ON
30	ON
31	
32	
33	
34	
35	ON
36	
37	ON
38	ON
39	
40	
41	ON
42	
43	
44	
45	
46	
47	
48	ON
49	ON
50	ON
51	ON
52	ON
53	ON
54	ON
55	ON
56	ON
57	ON
58	ON
59	
60	ON
61	
62	
63	
64	

Alarms, Enable Alarms [1.6.4]

Alarm#	Alarm Enable
1	ON
2	ON
3	ON
4	ON
5	ON
6	ON
7	ON
8	ON
9	
10	ON
11	
12	ON
13	ON
14	ON
15	ON
16	ON
17	ON
18	ON
19	ON
20	ON
21	ON
22	ON
23	ON
24	
25	
26	ON
27	ON
28	
29	ON
30	ON
31	
32	
33	
34	
35	ON
36	
37	ON
38	ON
39	
40	
41	
42	
43	
44	
45	
46	
47	
48	ON
49	ON
50	ON
51	ON
52	ON
53	ON
54	ON
55	ON
56	ON
57	ON
58	ON
59	
60	ON
61	
62	
63	
64	

Preemption Times[3.1]/Phases[3.2]/Options[3.3]

Channel	1	2	3	4	5	6
Lock Input	ON	ON	ON	ON	ON	ON
Override Auto Flash	ON					
Override Higher Preempt	ON					
Flash in Dwell						
Link to Preempt						
Delay			1	1	1	1
Min Duration						
Min Green		5	5	5	5	5
Min Walk		3	3	3	3	3
Ped Clear		255	255	255	255	255
Track Green						
Min Dwell		5	5	5	5	5
Max Presence		240	240	240	240	240
Track Veh 1						
Track Veh 2						
Track Veh 3						
Track Veh 4						
Dwell Cyc Veh 1						
Dwell Cyc Veh 2						
Dwell Cyc Veh 3						
Dwell Cyc Veh 4						
Dwell Cyc Veh 5						
Dwell Cyc Veh 6						
Dwell Cyc Veh 7						
Dwell Cyc Veh 8						
Dwell Cyc Veh 9						
Dwell Cyc Veh 10						
Dwell Cyc Veh 11						
Dwell Cyc Veh 12						
Dwell Cyc Ped1						
Dwell Cyc Ped2						
Dwell Cyc Ped3						
Dwell Cyc Ped4						
Dwell Cyc Ped5						
Dwell Cyc Ped6						
Dwell vPed7						
Dwell Cyc Ped8						
Exit 1						
Exit 2						
Exit 3						
Exit 4						

Alarms, Parameters [1.4.1]

Auto Flash Parameter

Yellow	Red	Mode	Source
45	30		

Alarms, Parameters [1.6.7]

Preempt Event Enabled	Pattern Event Enabled
OFF	OFF

Alarms, Phases/Overlaps [1.4.2]

Auto Flash	1	2	3	4	5	6	7	8	9	10	11	12
Phases	2	6										
Overlaps												

Station : 19 - SR 520 & Sykes Creek Pkwy (Standard File)

Preemption Times+[3.4]/Overlaps+[3.5]/Options+[3.6]

Preempt	1	2	3	4	5	6
Enable		ON	ON			
Type	RAIL	EMERG	EMERG	EMERG	EMERG	EMERG
Skip Track						
Volt Mon Flash						
Coord in Preempt	ON	ON				
Return Max/Min	MAX	MAX	MAX	MAX	MAX	MAX
Extend Dwell						
Pattern						
Output Mode	TS2	TS2	TS2	TS2	TS2	TS2
Track Over 1						
Track Over 2						
Track Over 3						
Track Over 4						
Track Over 5						
Track Over 6						
Track Over 7						
Track Over 8						
Track Over 9						
Track Over 10						
Track Over 11						
Track Over 12						
DwellCyc Over 1						
DwellCyc Over 2						
DwellCyc Over 3						
DwellCyc Over 4						
DwellCyc Over 5						
DwellCyc Over 6						
DwellCyc Over 7						
DwellCyc Over 8						
DwellCyc Over 9						
DwellCyc Over 10						
DwellCyc Over 11						
DwellCyc Over 12						
Ped Clear						
Yellow		4	4			
Red		2	2			
Return Max						

Coordination, Modes,+ [2.1]

Modes

Operational	Correct	Maximum	Force-Off
	SHRT/LNG	MAX INH	FIXED

Modes+

Mode	Leave Before	Leave After	Recycle	Stop In Walk	External	Auto Reset	Latch Sec Foff	Coord Easy Float	Yield Value	Coord NTCIP Yield Sign	Closed Loop Active	
RESERVED	TIMED	TIMED	P3478_INH	ON	OFF	ON	OFF	OFF	0	+	ON	OFF

Coordination, Pattern 1-16 [2.1]

Pattern	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Cycle Time	150	160	160	140	80											
Offset Time	112	121	105	11												
Split Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Seq Number	3	2	3	1	1	1	1	1	1	1	1	1	1	1	1	1
Offset	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn

Coordination, Pattern 17-32 [2.1]

Pattern	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Cycle Time										200				120	120	
Offset Time										11						
Split Number	17	18	19	20	21	22	23	24		26				30	31	
Seq Number	1	1	1	1	1	1	1	1	1	1	1	1	1	3	2	1
Offset	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn

Brevard County | Timing Sheet | 10/26/2022 9:35:44 AM

Station : 19 - SR 520 & Sykes Creek Pkwy (Standard File)

Coordination, Splits [2.7.1]

Split Table 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	22	78	25	25	27	73	20	30								
Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
Coord Phase						ON										

Split Table 2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	24	80	28	28	20	84	18	38								
Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
Coord Phase		ON														

Split Table 3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	23	77	35	25	25	75	23	37								
Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
Coord Phase						ON										

Split Table 4	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	20	67	31	22	23	64	18	35								
Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
Coord Phase		ON														

Split Table 5	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	16	25	19	20	16	25	17	22								
Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
Coord Phase		ON														

Split Table 6	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase		ON														

Split Table 7	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 8	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 9	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 10	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 11	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
Coord Phase		ON														

Split Table 12	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
Coord Phase		ON														

Brevard County | Timing Sheet | 10/26/2022 9:35:44 AM

Station : 19 - SR 520 & Sykes Creek Pkwy (Standard File)

Split Table 13	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
Coord Phase		ON														

Split Table 14	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
Coord Phase		ON														

Split Table 15	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 16	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 17	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 18	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 19	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 20	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 21	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 22	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 23	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 24	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 25	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 26	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	24	120	28	28	20	124	18	38								
Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase		ON														

Split Table 27	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 28	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 29	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	MAX
Coord Phase																

Split Table 30	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	20	50	20	30	20	50	20	30								
Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase		ON														

Split Table 31	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	20	50	20	30	20	50	20	30								
Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase						ON										

Split Table 32	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Station : 19 - SR 520 & Sykes Creek Pkwy (Standard File)

TB Coor, Advanced Scheduler [4.3]

	Month												Day of Week							Day of Month										1										2										3		
Plan	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	Day Plan
1	1	1	1	1	1	1	1	1	1	1	1	1		1	1	1	1	1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	1	1	1	1	1	1							1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
3	1	1	1	1	1	1	1	1	1	1	1	1	1							1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3
4																																																	4
5																																																	1
6																																																	1
7																																																	1
8																																																	1
9																																																	1
10																																																	1
11																																																	1
12																																																	1
13																																																	1
14																																																	1
15																																																	1
16																																																	1
17																																																	1
18																																																	1
19																																																	1
20																																																	1
21																																																	1
22																																																	1
23																																																	1
24																																																	1
25																																																	1
26																																																	1
27																																																	1
28																																																	1
29																																																	1
30																																																	1
31																																																	1
32																																																	1

TB Coor, Day Plan [4.4]

Day Plan Table 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour		7	9	13	18	19										
Minute		30	30	30		45										
Action	100	1	2	3	4	100										

Day Plan Table 2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour		7	9	19	22											
Minute																
Action	100	5	2	5	100											

Day Plan Table 3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour		7	9	19	22											
Minute																
Action	100	5	2	5	100											

Day Plan Table 4	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 5	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 6	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Brevard County | Timing Sheet | 10/26/2022 9:35:44 AM

Station : 19 - SR 520 & Sykes Creek Pkwy (Standard File)

Day Plan Table 7	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 8	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 9	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 10	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 11	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 12	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Station : 19 - SR 520 & Sykes Creek Pkwy (Standard File)

TB Coor, Action Table [4.5]

Action	Pattern	Aux 1	Aux 2	Aux 3	Special 1	Special 2	Special 3	Special 4	Special 5	Special 6	Special 7	Special 8
1	1				0	0						
2	2				0	0						
3	3				0	0						
4	4				0	0						
5	5				0	0						
6	6				0	0						
7	7				0	0						
8	8				0	0						
9	9				0	0						
10	10				0	0						
11	11				0	0						
12	12				0	0						
13	13				0	0						
14	14				0	0						
15	15				0	0						
16	16				0	0						
17	17				0	0						
18	18				0	0						
19	19				0	0						
20	20				0	0						
21	21				0	0						
22	22				0	0						
23	23				0	0						
24	24				0	0						
25	25				0	0						
26	26				0	0						
27	27				0	0						
28	28				0	0						
29	29				0	0						
30	30				0	0						
31	31				0	0						
32	32				0	0						
33	33				0	0						
34	34				0	0						
35	35				0	0						
36	36				0	0						
37	37				0	0						
38	38				0	0						
39	39				0	0						
40	40				0	0						
41	41				0	0						
42	42				0	0						
43	43				0	0						
44	44				0	0						
45	45				0	0						
46	46				0	0						
47	47				0	0						
48	48				0	0						
49					0	0						
50					0	0						
51					0	0						
52					0	0						
53					0	0						
54					0	0						
55					0	0						
56					0	0						
57					0	0						
58					0	0						
59					0	0						
60					0	0						
61					0	0						
62					0	0						
63					0	0						
64					0	0						
99	255				0	0						
100	254				0	0						

Station : 218 - S Courtenay Pkwy & Fortenberry Rd (Standard File)

Phase [1.1.1]

	1 (WR)	2 (NR)	3 (WT)	4 (ET)	5	6 (ST)	7	8	9	10	11	12	13	14	15	16
Walk	0	7	7	7	0	7	0	0	0	0	0	0	0	0	0	0
Ped Clearance	0	24	27	29	0	19	0	0	0	0	0	0	0	0	0	0
Min Green	5	12	7	7	0	12	0	7	3	0	3	0	3	0	3	0
Gap Ext	3.5	3	4	4	0	3	3	4	0	0	0	0	0	0	0	0
Max1	25	60	30	30	0	60	0	30	0	0	0	0	0	0	0	0
Max2	25	60	30	30	0	60	0	30	0	0	0	0	0	0	0	0
Yellow Clr	3.6	4	3.6	4	3.5	4	3.5	4	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Red Clr	3	2.2	3	3	2	2.2	2	3	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Red Revert	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Added Initial	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Initial	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time Before Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Before Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time To Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reduce By	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dynamic Max Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dynamic Max Step	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Auto Flash Entry			ON	ON				ON								
Auto Flash Exit		ON				ON										
Non-Actuated 1																
Non-Actuated 2																
Rest In Walk		ON				ON										

Phase Option [1.1.2]

	1 (WR)	2 (NR)	3 (WT)	4 (ET)	5	6 (ST)	7	8	9	10	11	12	13	14	15	16
Enable	ON	ON	ON	ON		ON		ON								
Lock Call		ON				ON			ON	ON	ON	ON	ON	ON	ON	ON
Min Recall		ON				ON										
Max Recall																
Ped Recall																
Soft Recall																
Dual Entry		ON				ON										
Sim Gap Enable		ON				ON			ON	ON	ON	ON	ON	ON	ON	ON
Guar Passage																
Cond Service																
Add Init Calc																

Alternate Phase Program 1, Calls and Redirection [1.1.6.3]

Entry	Call Phases				From	To	From	To	From	To	From	To	Assigned Ph
1	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0	0

Alternate Phase Program 2, Calls and Redirection [1.1.6.3]

Entry	Call Phases				From	To	From	To	From	To	From	To	Assigned Ph
1	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0	0

Alternate Phase Program 1, Interval Times [1.1.6.1]

Phase	Walk	Ped Clear	Min Green	Passage	Max1	Max2	Yellow	Red Clear	Assign Ph	Bike Clear
1	0	0	0	0	0	0	0	0	0	
2	0	0	0	0	0	0	0	0	0	
3	0	0	0	0	0	0	0	0	0	
4	0	0	0	0	0	0	0	0	0	
5	0	0	0	0	0	0	0	0	0	
6	0	0	0	0	0	0	0	0	0	
7	0	0	0	0	0	0	0	0	0	
8	0	0	0	0	0	0	0	0	0	

Alternate Phase Program 2, Interval Times [1.1.6.1]

Phase	Walk	Ped Clear	Min Green	Passage	Max1	Max2	Yellow	Red Clear	Assign Ph	Bike Clear
1	0	0	0	0	0	0	0	0	0	
2	0	0	0	0	0	0	0	0	0	
3	0	0	0	0	0	0	0	0	0	
4	0	0	0	0	0	0	0	0	0	
5	0	0	0	0	0	0	0	0	0	
6	0	0	0	0	0	0	0	0	0	
7	0	0	0	0	0	0	0	0	0	
8	0	0	0	0	0	0	0	0	0	

Prepared By	Date Implemented	Reviewed By	Traffic Engineer

Brevard County Timing Sheet 10/26/2022 9:36:03 AM

Station : 218 - S Courtenay Pkwy & Fortenberry Rd (Standard File)

Unit Parameters [1.2.1]

StartUp Flash	Auto Ped Clear	Red Revert	Local Flash Start	Allow < 3 sec Yel	Allow Skip Yel	MCE Timeout	Enable Run	Start Red Time	Phase Mode	Startup Calls	Diamond Mode	Stop Time Over Preempt	Free Ring Sequence	Clearance Decide	Min Ped Clear Time	RingAlgo

	OFF	3	OFF	OFF	OFF		ON		STD8	OFF	4PH	OFF	1	OFF	OFF	

Comm, General Comm Parameters [6.1]

Station ID	Master Station ID	Fallback time	Allow Pencil	Port	System-Up	Sys-Down	PC/Print	Aux 232
218								

Port Parameters [6.2]

Comm	Mode	Baud	MsgTime	Duplex	Enable	DialTime	Modem	ModemTime	Tel#1	Tel#2
System Up(P-A)										
System Down(P-B)										
PC/Print(P-2)										

Overlap General Parameters [1.5.1]

Conflict Lock	Lock Inhibit	Program Card	Use Parent	Canadian Fast Flash
OFF	OFF	ON	ALWAYS	

Overlap Program Parameters [1.5.2.1]

Overlap	Included Phases								Modifer Phases								Type	Green	Yellow	Red
Overlap 1																	NORMAL		3.5	1.5
Overlap 2																	NORMAL		3.5	1.5
Overlap 3																	NORMAL		3.5	1.5
Overlap 4																	NORMAL		3.5	1.5
Overlap 5																	NORMAL		3.5	1.5
Overlap 6																	NORMAL		3.5	1.5
Overlap 7																	NORMAL		3.5	1.5
Overlap 8																	NORMAL		3.5	1.5

Overlap Conflict Parameters+ [1.5.2.2]

Overlap	Conflicting Phases								Conflicting Overlaps								Conflicting Peds							
Overlap 1																								
Overlap 2																								
Overlap 3																								
Overlap 4																								
Overlap 5																								
Overlap 6																								
Overlap 7																								
Overlap 8																								

Detector, Vehicle Parameters 1-16 [5.1]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Call Phase	4	1	0	0	2	2	2	2	0	0	0	0	0	0	0	0
Switch Phase	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Detector, Vehicle Parameters 17-32 [5.1]

	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Call Phase	0	5	0	0	0	0	6	6	0	0	0	0	0	0	0	0
Switch Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Station : 218 - S Courtenay Pkwy & Fortenberry Rd (Standard File)

Detector Alternate Program 1, Vehicle Parameters [5.5.1]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Call Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Switch Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Channels/SDLC, Assign to Phases [1.3.1]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
PH/OLP #	1	2	3	4	5	6	7	8	1	2	3	4	2	4	6	3	1	3	5	7				
Type	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	OLP	OLP	OLP	OLP	PED	PED	PED	PED	PED	PED	PED	PED	VEH	VEH	VEH	VEH
Flash	RED	YEL	RED	RED	RED	YEL	RED	RED	RED	RED	RED	RED	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK
Alt Hz																								
Dimming Green																								
Dimming Yellow																								
Dimming Red																								
Dimming Cyc	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

Channel/SDLC, Parameters [1.3.3]

TOD Dim Enable	Extra Maps Enable	D Connector Enable	Single BIU Map	IO Mode	Preempt or Ext Output
OFF	DEFAULT				

Channel/SDLC, MMU Map [1.3.5]

MMU-to-Controller Channel Map

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

Channel/SDLC, Permissive [1.3.4]

Channel	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2
1															
2															
3															
4															
5															
6															
7															
8															
9															
10															
11															
12															
13															
14															
15															
1															
2															
3															
4															
5															
6															
7															
8															
9															
10															
11															
12															
13															
14															
15															
1															
2															
3															

4
5
6
7
8
9
10
11
12
13
14
15
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
1

2
3
4
5
6
7
8
9
10
11
12
13
14
15
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
1
2
3
4
5
6
7
8
9
10
11
12
13
14

Channel/SDLC, Permissive [1.3.7]

SDLC Device	Term/Fac								Detector								MMU	Diag
BIU#	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8		
Dev Present	ON	ON							ON		ON						ON	
Peer to Peer																		

Ring Sequence [1.2.4]

Ring	P1	P2	P3	P4	P5	P6	P7	P8
Ring 1	1	2	3	4				
Ring 2	5	6	7	8				
Ring 3								
Ring 4								

Station : 218 - S Courtenay Pkwy & Fortenberry Rd (Standard File)

Alarms, Enable Events [1.6.1]

Event#	Event Enable
1	ON
2	ON
3	
4	ON
5	ON
6	
7	
8	
9	
10	
11	
12	ON
13	
14	ON
15	ON
16	ON
17	
18	
19	
20	ON
21	ON
22	ON
23	ON
24	
25	
26	
27	
28	
29	
30	
31	
32	
33	
34	
35	
36	
37	
38	
39	
40	
41	
42	
43	
44	
45	
46	
47	
48	
49	
50	
51	
52	
53	
54	
55	
56	
57	
58	
59	
60	
61	
62	
63	
64	

Alarms, Enable Alarms [1.6.4]

Alarm#	Alarm Enable
1	ON
2	ON
3	
4	ON
5	ON
6	
7	
8	
9	
10	
11	
12	ON
13	
14	ON
15	ON
16	ON
17	
18	
19	
20	ON
21	ON
22	ON
23	ON
24	
25	
26	
27	
28	
29	
30	
31	
32	
33	
34	
35	
36	
37	
38	
39	
40	
41	
42	
43	
44	
45	
46	
47	
48	
49	
50	
51	
52	
53	
54	
55	
56	
57	
58	
59	
60	
61	
62	
63	
64	

Preemption Times[3.1]/Phases[3.2]/Options[3.3]

Channel	1	2	3	4	5	6
Lock Input	ON	ON	ON	ON	ON	ON
Override Auto Flash	ON					
Override Higher Preempt	ON					
Flash in Dwell						
Link to Preempt						
Delay			1	1	1	1
Min Duration						
Min Green		5	5	5	5	5
Min Walk		3	3	3	3	3
Ped Clear		255	255	255	255	255
Track Green						
Min Dwell		5	5	5	5	5
Max Presence		240	240	240	240	240
Track Veh 1						
Track Veh 2						
Track Veh 3						
Track Veh 4						
Dwell Cyc Veh 1						
Dwell Cyc Veh 2						
Dwell Cyc Veh 3						
Dwell Cyc Veh 4						
Dwell Cyc Veh 5						
Dwell Cyc Veh 6						
Dwell Cyc Veh 7						
Dwell Cyc Veh 8						
Dwell Cyc Veh 9						
Dwell Cyc Veh 10						
Dwell Cyc Veh 11						
Dwell Cyc Veh 12						
Dwell Cyc Ped1						
Dwell Cyc Ped2						
Dwell Cyc Ped3						
Dwell Cyc Ped4						
Dwell Cyc Ped5						
Dwell Cyc Ped6						
Dwell vPed7						
Dwell Cyc Ped8						
Exit 1						
Exit 2						
Exit 3						
Exit 4						

Alarms, Parameters [1.4.1]

Auto Flash Parameter

Yellow	Red	Mode	Source
45	30		

Alarms, Parameters [1.6.7]

Preempt Event Enabled	Pattern Event Enabled
OFF	ON

Alarms, Phases/Overlaps [1.4.2]

Auto Flash	1	2	3	4	5	6	7	8	9	10	11	12
Phases	2	6										
Overlaps												

Station : 218 - S Courtenay Pkwy & Fortenberry Rd (Standard File)

Preemption Times+[3.4]/Overlaps+[3.5]/Options+[3.6]

Preempt	1	2	3	4	5	6
Enable		ON	ON			
Type	EMERG	EMERG	EMERG	EMERG	EMERG	EMERG
Skip Track						
Volt Mon Flash						
Coord in Preempt	ON					
Return Max/Min	MAX	MAX	MAX	MAX	MAX	MAX
Extend Dwell						
Pattern						
Output Mode	TS2	TS2	TS2	TS2	TS2	TS2
Track Over 1						
Track Over 2						
Track Over 3						
Track Over 4						
Track Over 5						
Track Over 6						
Track Over 7						
Track Over 8						
Track Over 9						
Track Over 10						
Track Over 11						
Track Over 12						
DwellCyc Over 1						
DwellCyc Over 2						
DwellCyc Over 3						
DwellCyc Over 4						
DwellCyc Over 5						
DwellCyc Over 6						
DwellCyc Over 7						
DwellCyc Over 8						
DwellCyc Over 9						
DwellCyc Over 10						
DwellCyc Over 11						
DwellCyc Over 12						
Ped Clear						
Yellow		4	4			
Red		2	2			
Return Max						

Coordination, Modes,+ [2.1]

Modes

Operational	Correct	Maximum	Force-Off
	SHRT/LNG	MAX INH	FIXED

Modes+

Mode	Leave Before	Leave After	Recycle	Stop In Walk	External	Auto Reset	Latch Sec Foff	Coord Easy Float	Yield Value	Coord NTCIP Yield Sign	Closed Loop Active	
RESERVED	TIMED	TIMED	P3478_INH	ON	OFF	ON	OFF	OFF	0	+	ON	OFF

Coordination, Pattern 1-16 [2.1]

Pattern	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Cycle Time	75	80	80	140	80											
Offset Time	32	24	18	48	19											
Split Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Seq Number	9	9	9	9	9	1	1	1	1	1	1	1	1	1	1	1
Offset	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn

Coordination, Pattern 17-32 [2.1]

Pattern	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Cycle Time														120	120	
Offset Time																
Split Number	17	18	19	20	21	22	23	24						30	31	
Seq Number	1	1	1	1	1	1	1	1	1	1	1	1	1	9	9	1
Offset	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn

Brevard County | Timing Sheet | 10/26/2022 9:36:03 AM

Station : 218 - S Courtenay Pkwy & Fortenberry Rd (Standard File)

Coordination, Splits [2,7,1]

Split Table 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	14	32	15	14		46		29								
Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
Coord Phase		ON														

Split Table 2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	14	34	16	16		48		32								
Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
Coord Phase		ON														

Split Table 3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	14	34	16	16		48		32								
Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
Coord Phase		ON														

Split Table 4	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	23	68	28	21		91		49								
Mode	NON	MXP	NON	NON	NON	MXP	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
Coord Phase		ON														

Split Table 5	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	15	34	16	15		49		31								
Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
Coord Phase		ON														

Split Table 6	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
Coord Phase																

Split Table 7	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
Coord Phase																

Split Table 8	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
Coord Phase																

Split Table 9	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
Coord Phase																

Split Table 10	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
Coord Phase																

Split Table 11	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
Coord Phase																

Split Table 12	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
Coord Phase																

Brevard County | Timing Sheet | 10/26/2022 9:36:03 AM

Station : 218 - S Courtenay Pkwy & Fortenberry Rd (Standard File)

Split Table 13	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
Coord Phase																

Split Table 14	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
Coord Phase																

Split Table 15	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
Coord Phase																

Split Table 16	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
Coord Phase																

Split Table 17	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
Coord Phase																

Split Table 18	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
Coord Phase																

Split Table 19	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
Coord Phase																

Split Table 20	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
Coord Phase																

Split Table 21	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
Coord Phase																

Split Table 22	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
Coord Phase																

Split Table 23	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
Coord Phase																

Split Table 24	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
Coord Phase																

Split Table 25	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
Coord Phase																

Split Table 26	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
Coord Phase																

Split Table 27	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
Coord Phase																

Split Table 28	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
Coord Phase																

Split Table 29	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
Coord Phase																

Split Table 30	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	20	50	20	30		70		50								
Mode	NON	MXP	NON	NON	NON	MXP	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase		ON														

Split Table 31	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	20	50	20	30		70		50								
Mode	NON	MXP	NON	NON	NON	MXP	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase						ON										

Split Table 32	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
Coord Phase																

Station : 218 - S Courtenay Pkwy & Fortenberry Rd (Standard File)

TB Coor, Advanced Scheduler [4.3]

	Month												Day of Week							Day of Month										1										2										3		
Plan	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	Day Plan
1	1	1	1	1	1	1	1	1	1	1	1	1		1	1	1	1	1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	1	1	1	1	1	1						1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
3	1	1	1	1	1	1	1	1	1	1	1	1	1							1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3
4																																																	4
5																																																		1
6																																																		1
7																																																		1
8																																																		1
9																																																		1
10																																																		1
11																																																		1
12																																																		1
13																																																		1
14																																																		1
15																																																		1
16																																																		1
17																																																		1
18																																																		1
19																																																		1
20																																																		1
21																																																		1
22																																																		1
23																																																		1
24																																																		1
25																																																		1
26																																																		1
27																																																		1
28																																																		1
29																																																		1
30																																																		1
31																																																		1
32																																																		1

TB Coor, Day Plan [4.4]

Day Plan Table 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour		7	9	13	18	19										
Minute		30	30	30		45										
Action	100	1	2	3	100	100										

Day Plan Table 2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour		7	9	19	22											
Minute																
Action	100	5	2	5	100											

Day Plan Table 3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour		7	9	19	22											
Minute																
Action	100	5	2	5	100											

Day Plan Table 4	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action	100															

Day Plan Table 5	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action	100															

Day Plan Table 6	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action	100															

Brevard County | Timing Sheet | 10/26/2022 9:36:03 AM

Station : 218 - S Courtenay Pkwy & Fortenberry Rd (Standard File)

Day Plan Table 7	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 8	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 9	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 10	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 11	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 12	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Station : 218 - S Courtenay Pkwy & Fortenberry Rd (Standard File)

TB Coor, Action Table [4.5]

Action	Pattern	Aux 1	Aux 2	Aux 3	Special 1	Special 2	Special 3	Special 4	Special 5	Special 6	Special 7	Special 8
1	1				0	0						
2	2				0	0						
3	3				0	0						
4	4				0	0						
5	5				0	0						
6	6				0	0						
7	7				0	0						
8	8				0	0						
9	9				0	0						
10	10				0	0						
11	11				0	0						
12	12				0	0						
13	13				0	0						
14	14				0	0						
15	15				0	0						
16	16				0	0						
17	17				0	0						
18	18				0	0						
19	19				0	0						
20	20				0	0						
21	21				0	0						
22	22				0	0						
23	23				0	0						
24	24				0	0						
25	255				0	0						
26	26				0	0						
27	27				0	0						
28	28				0	0						
29	29				0	0						
30	30				0	0						
31	31				0	0						
32	32				0	0						
33	8				0	0						
34	9				0	0						
35	10				0	0						
36	11				0	0						
37	12				0	0						
38	13				0	0						
39	14				0	0						
40	15				0	0						
41	16				0	0						
42	17				0	0						
43	18				0	0						
44	19				0	0						
45	20				0	0						
46	21				0	0						
47	22				0	0						
48	23				0	0						
49	24				0	0						
50	48				0	0						
51					0	0						
52					0	0						
53					0	0						
54					0	0						
55					0	0						
56					0	0						
57					0	0						
58					0	0						
59					0	0						
60					0	0						
61					0	0						
62					0	0						
63					0	0						
64					0	0						
99					0	0						
100	254				0	0						

Station : 39 - Plumosa St & Fortenberry (Standard File)

Phase [1.1.1]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Walk	0	5	0	5	0	5	0	5	0	0	0	0	0	0	0	0
Ped Clearance	0	20	0	18	0	20	0	18	0	0	0	0	0	0	0	0
Min Green	5	14	0	7	5	14	5	7	0	0	0	0	0	0	0	0
Passage	3	3.5	0	3	3	3.5	3	3	0	0	0	0	0	0	0	0
Max1	15	35	0	35	15	35	15	35	0	0	0	0	0	0	0	0
Max2	15	35	0	35	15	35	15	35	0	0	0	0	0	0	0	0
Yellow	4	4	4	4	4	4	4	4	0	0	0	0	0	0	0	0
Red	2	2	0	2	2	2	2	2	0	0	0	0	0	0	0	0
Red Revert	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Added Initial	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Initial	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time Before Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Before Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time To Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reduce By	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dynamic Max Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dynamic Max Step	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Auto Exit		ON				ON										
Rest In Walk																

Phase Option [1.1.2]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Enable	ON	ON		ON	ON	ON	ON	ON								
Auto Entry				ON				ON								
Non Act1																
Non Act2																
Lock Call		ON				ON			ON	ON	ON	ON	ON	ON	ON	ON
Min Recall		ON				ON										
Max Recall																
Ped Recall																
Soft Recall																
Dual Entry		ON		ON		ON		ON								
Sim Gap Enable		ON				ON										
Guar Passage																
Cond Service																
Add Init Calc																

Alternate Phase Program 1, Calls and Redirection [1.1.6.3]

Entry	Call Phases				From	To	From	To	From	To	From	To	Assigned Ph
1	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0	0

Alternate Phase Program 2, Calls and Redirection [1.1.6.3]

Entry	Call Phases				From	To	From	To	From	To	From	To	Assigned Ph
1	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0	0

Alternate Phase Program 1, Interval Times [1.1.6.1]

Phase	Walk	Ped Clear	Min Green	Passage	Max1	Max2	Yellow	Red Clear	Assign Ph	Bike Clear
1	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0

Alternate Phase Program 2, Interval Times [1.1.6.1]

Phase	Walk	Ped Clear	Min Green	Passage	Max1	Max2	Yellow	Red Clear	Assign Ph	Bike Clear
1	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0

Prepared By | Date Implemented | Reviewed By | Traffic Engineer

Brevard County Timing Sheet 10/26/2022 9:36:23 AM

Station : 39 - Plumosa St & Fortenberry (Standard File)

Unit Parameters [1.2.1]

StartUp Flash	Auto Ped Clear	Backup Time	Red Revert	Console Timeout	Tone Disable	Feature Profile	Phase Mode	Diamond Mode	SDLC Retry Time	TS2 Det Faults	Cycle Fault Action	Max Cycle Time	Max Seek Track Time	Max Seek Dwell Time	Enable Run	Local Flash Start	Start Red Time	Disable Init Ped	Yellow 3 Second Disable	Omit Yellow Enable	Free Ring Sequence
	OFF			10	OFF		STD8	4PH		ON	ALARM				ON	OFF		OFF	OFF	OFF	1

Comm, General Comm Parameters [6.1]

Station ID	Master Station ID	Fallback time	Allow Pencil	Port	System-Up	Sys-Down	PC/Print	Aux 232
39			OFF					

Port Parameters [6.2]

Comm	Mode	Baud	MsgTime	Duplex	Enable	DialTime	Modem	ModemTime	Tel#1	Tel#2
System Up(P-A)										
System Down(P-B)										
PC/Print(P-2)										

Overlap General Parameters [1.5.1]

Conflict Lock	Lock Inhibit	Program Card	Use Parent	Canadian Fast Flash
OFF	OFF	OFF	OFF	OFF

Overlap Program Parameters [1.5.2.1]

Overlap	Included Phases								Modifer Phases								Type	Green	Yellow	Red
Overlap 1																	NORMAL		3.5	1.5
Overlap 2																	NORMAL		3.5	1.5
Overlap 3																	NORMAL		3.5	1.5
Overlap 4																	NORMAL		3.5	1.5
Overlap 5																	NOTVAL			
Overlap 6																	NOTVAL			
Overlap 7																	NOTVAL			
Overlap 8																	NOTVAL			

Overlap Conflict Parameters+ [1.5.2.2]

Overlap	Conflicting Phases								Conflicting Overlaps								Conflicting Peds									
Overlap 1																									OFF	OFF
Overlap 2																									OFF	OFF
Overlap 3																									OFF	OFF
Overlap 4																									OFF	OFF
Overlap 5																									OFF	OFF
Overlap 6																									OFF	OFF
Overlap 7																									OFF	OFF
Overlap 8																									OFF	OFF

Detector, Vehicle Parameters 1-16 [5.1]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Call Phase	1	2	0	4	5	6	7	8	0	0	0	0	0	0	0	0
Switch Phase	6	0	0	0	2	0	4	0	0	0	0	0	0	0	0	0
Delay Time	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0

Detector, Vehicle Parameters 17-32 [5.1]

	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Call Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Switch Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Station : 39 - Plumosa St & Fortenberry (Standard File)

Detector Alternate Program 1, Vehicle Parameters [5.5.1]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Call Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Switch Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Channels/SDLC, Assign to Phases [1.3.1]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
PH/OLP #	1	2	3	4	5	6	7	8	9	10	11	12	2	4	6	8	1	3	5	7				
Type	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	OLP	OLP	OLP	OLP	PED	PED	PED	PED	PED	PED	PED	PED	VEH	VEH	VEH	VEH
Flash	RED	YEL	RED	RED	RED	YEL	RED	RED	RED	RED	RED	RED	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK
Flash 1-2 Hertz																								
Dimming Green																								
Dimming Yellow																								
Dimming Red																								
Alt Cyc	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

Channel/SDLC, Parameters [1.3.3]

TOD Dim Enable	Extra Maps Enable	D Connector Enable	Single BIU Map	IO Mode	Preempt or Ext Output
OFF	DEFAULT	TX2_V14	ON	AUTO	EXT

Channel/SDLC, MMU Map [1.3.5]

MMU-to-Controller Channel Map

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

Channel/SDLC, Permissive [1.3.4]

Channel	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2
1															
2															
3															
4															
5															
6															
7															
8															
9															
10															
11															
12															
13															
14															
15															
1															
2															
3															
4															
5															
6															
7															
8															
9															
10															
11															
12															
13															
14															
15															
1															
2															
3															
4															
5															
6															
7															
8															
9															
10															
11															
12															
13															
14															
15															
1															
2															
3															

4
5
6
7
8
9
10
11
12
13
14
15
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
1

2
3
4
5
6
7
8
9
10
11
12
13
14
15
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
1
2
3
4
5
6
7
8
9
10
11
12
13
14

Channel/SDLC, Permissive [1.3.7]

SDLC Device	Term/Fac								Detector								MMU	Diag
BIU#	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8		
Present	ON	ON							ON								ON	
Peer to Peer																		

Ring Sequence [1.2.4]

Ring	P1	P2	P3	P4	P5	P6	P7	P8
Ring 1	1	2	3	4				
Ring 2	5	6	7	8				
Ring 3								
Ring 4								

Brevard County | Timing Sheet | 10/26/2022 9:36:23 AM

Station : 39 - Plumosa St & Fortenberry (Standard File)

Alarms, Enable Events [1.6.1]

Event#	Event Enable
1	
2	ON
3	ON
4	ON
5	ON
6	ON
7	ON
8	ON
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	
25	
26	
27	
28	
29	
30	
31	
32	
33	
34	
35	
36	
37	
38	
39	
40	
41	
42	
43	
44	
45	
46	
47	
48	
49	
50	
51	
52	
53	
54	
55	
56	
57	
58	
59	
60	
61	
62	
63	
64	

Alarms, Enable Alarms [1.6.4]

Alarm#	Alarm Enable
1	ON
2	ON
3	ON
4	ON
5	ON
6	ON
7	ON
8	ON
9	ON
10	ON
11	ON
12	ON
13	ON
14	ON
15	ON
16	ON
17	
18	
19	
20	
21	
22	
23	
24	
25	
26	
27	
28	
29	
30	
31	
32	
33	
34	
35	
36	
37	
38	
39	
40	
41	
42	
43	
44	
45	
46	
47	
48	
49	
50	
51	
52	
53	
54	
55	
56	
57	
58	
59	
60	
61	
62	
63	
64	

Preemption Times[3.1]/Phases[3.2]/Options[3.3]

Channel	1	2	3	4	5	6
Lock Input	ON	ON	ON	ON	ON	ON
Override Flash	ON	ON	ON	ON	ON	ON
Override Higher	ON	ON	ON	ON	ON	ON
Flash Dwell						
Link						
Delay						
Min Duration						
Min Green						
Min Walk						
Ped Clear						
Track Green						
Min Dwell						
Max Presence						
Track R1						
Track R2						
Track R3						
Track R4						
Dwell P1						
Dwell P2						
Dwell P3						
Dwell P4						
Dwell P5						
Dwell P6						
Dwell P7						
Dwell P8						
Dwell P9						
Dwell P10						
Dwell P11						
Dwell P12						
Dwell Ped1						
Dwell Ped2						
Dwell Ped3						
Dwell Ped4						
Dwell Ped5						
Dwell Ped6						
Dwell Ped7						
Dwell Ped8						
Exit R1						
Exit R2						
Exit R3						
Exit R4						

Alarms, Parameters [1.4.1]

Auto Flash Parameter

Yellow	Red	Mode	Source
45	30	VOT_MON	D-CONN

Alarms, Parameters [1.6.7]

Preempt Event Enabled	Pattern Event Enabled
OFF	OFF

Alarms, Phases/Overlaps [1.4.2]

Auto Flash	1	2	3	4	5	6	7	8	9	10	11	12
Phases												
Overlaps												

Station : 39 - Plumosa St & Fortenberry (Standard File)

Preemption Times+[3.4]/Overlaps+[3.5]/Options+[3.6]

Preempt	1	2	3	4	5	6
Enable						
Type	EMERG	EMERG	EMERG	EMERG	EMERG	EMERG
Skip Track						
Volt Mon Flash						
Coord in Preempt						
Max2						
Return Max/Min	MAX	MAX	MAX	MAX	MAX	MAX
Extend Dwell						
Pattern						
Output Mode	TS2	TS2	TS2	TS2	TS2	TS2
Track Over 1						
Track Over 2						
Track Over 3						
Track Over 4						
Track Over 5						
Track Over 6						
Track Over 7						
Track Over 8						
Track Over 9						
Track Over 10						
Track Over 11						
Track Over 12						
Dwell Over 1						
Dwell Over 2						
Dwell Over 3						
Dwell Over 4						
Dwell Over 5						
Dwell Over 6						
Dwell Over 7						
Dwell Over 8						
Dwell Over 9						
Dwell Over 10						
Dwell Over 11						
Dwell Over 12						
Ped Clear						
Yellow						
Red						
Return Min/Max						
Delay Inh						
Exit Time						
All Red B4						

Coordination, Modes,+ [2.1]

Modes

Operational	Correct	Maximum	Force-Off
	NOTVALID	NOTVAL	NOTVAL

Modes+

Mode	Leave Before	Leave After	Recycle	Stop In Walk	External	Auto Reset	Latch Sec Foff	Coord Easy Float	Yield Value	Coord NTCIP Yield Sign	Closed Loop Active	
FRC	TIMED	TIMED	NO_RECYCLE	OFF	OFF	OFF	OFF	OFF	0	+	OFF	OFF

Coordination, Pattern 1-16 [2.1]

Pattern	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Cycle Time																
Offset Time																
Split Number																
Seq Number																
Offset	beggm	beggm	beggm	beggm	beggm	beggm	beggm	beggm	beggm	beggm	beggm	beggm	beggm	beggm	beggm	beggm

Coordination, Pattern 17-32 [2.1]

Pattern	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Cycle Time																
Offset Time																
Split Number																
Seq Number																
Offset	beggm	beggm	beggm	beggm	beggm	beggm	beggm	beggm	beggm	beggm	beggm	beggm	beggm	beggm	beggm	beggm

Brevard County | Timing Sheet | 10/26/2022 9:36:23 AM

Station : 39 - Plumosa St & Fortenberry (Standard File)

Coordination, Splits [2.7.1]

Split Table 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD
Coord-Ph																

Split Table 2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD
Coord-Ph																

Split Table 3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD
Coord-Ph																

Split Table 4	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD
Coord-Ph																

Split Table 5	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD
Coord-Ph																

Split Table 6	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD
Coord-Ph																

Split Table 7	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD
Coord-Ph																

Split Table 8	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD
Coord-Ph																

Split Table 9	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD
Coord-Ph																

Split Table 10	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD
Coord-Ph																

Split Table 11	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD
Coord-Ph																

Split Table 12	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD
Coord-Ph																

Brevard County | Timing Sheet | 10/26/2022 9:36:23 AM

Station : 39 - Plumosa St & Fortenberry (Standard File)

Split Table 13	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD
Coord-Ph																

Split Table 14	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD
Coord-Ph																

Split Table 15	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD
Coord-Ph																

Split Table 16	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD
Coord-Ph																

Split Table 17	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD
Coord-Ph																

Split Table 18	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD
Coord-Ph																

Split Table 19	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD
Coord-Ph																

Split Table 20	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD
Coord-Ph																

Split Table 21	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD
Coord-Ph																

Split Table 22	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD
Coord-Ph																

Split Table 23	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD
Coord-Ph																

Split Table 24	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD
Coord-Ph																

Split Table 25	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD
Coord-Ph																

Split Table 26	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD
Coord-Ph																

Split Table 27	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD
Coord-Ph																

Split Table 28	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD
Coord-Ph																

Split Table 29	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD
Coord-Ph																

Split Table 30	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD
Coord-Ph																

Split Table 31	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD
Coord-Ph																

Split Table 32	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD
Coord-Ph																

Brevard County | Timing Sheet | 10/26/2022 9:36:23 AM

Station : 39 - Plumosa St & Fortenberry (Standard File)

TB Coor, Advanced Scheduler [4.3]

| | Month | | | | | | | | | | | Day of Week | | | | | | | Day of Month | | | | | | | | | | |

Brevard County | Timing Sheet | 10/26/2022 9:36:23 AM

Station : 39 - Plumosa St & Fortenberry (Standard File)

Day Plan Table 7	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 8	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 9	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 10	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 11	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 12	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Station : 39 - Plumosa St & Fortenberry (Standard File)

TB Coor, Action Table [4.5]

Action	Pattern	Aux 1	Aux 2	Aux 3	Special 1	Special 2	Special 3	Special 4	Special 5	Special 6	Special 7	Special 8
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
28												
29												
30												
31												
32												
33												
34												
35												
36												
37												
38												
39												
40												
41												
42												
43												
44												
45												
46												
47												
48												
49												
50												
51												
52												
53												
54												
55												
56												
57												
58												
59												
60												
61												
62												
63												
64												
99												
100												

APPENDIX G
Space Coast TPO Traffic Counts

SPACE COAST TRANSPORTATION PLANNING ORGANIZATION TRAFFIC COUNTS: 2012 - 2021

ID	ROAD	SEGMENT (Sections)	2012 AADT	2013 AADT	2014 AADT	2015 AADT	2016 AADT	2017 AADT	2018 AADT	2019 AADT	2020 AADT	2021 AADT	Current MAV	Last Count Taken	Functional Classification
AREA: MERRITT ISLAND															
	CONE	S TROPICAL-PLUMOSA	5,145	5,085		5,295	5,205	5,495	5,330	3,920	4,880	4,510			
117	CONE	S Tropical-S Courtenay	4,390	4,440	NC	4,710	4,570	4,810	4,660	3,920	4,720	4,220	15,600	2/4/2021	Urban Minor Collector
115	CONE	S Courtenay-Plumosa	5,900	5,730	UC	5,880	5,840	6,180	6,000	NC	5,040	4,800	15,600	2/4/2021	Urban Minor Collector
137	CROCKETT	N TROPICAL-N COURTENAY	1,890	1,800	1,880	1,950	1,970	2,100	2,200	2,090	1,890	1,850	15,600	1/27/2021	Urban Minor Collector
	FORTENBERRY	S COURTENAY- SYKES CREEK	4,535	4,490		4,705	4,730	4,840	4,820	5,810	4,700	3,945			
119	FORTENBERRY	S Courtenay-Plumosa	4,000	4,150	UC	4,460	4,590	4,610	4,710	6,640	4,960	3,900	15,600	2/4/2021	Urban Major Collector
154	FORTENBERRY	Plumosa-Sykes Ck Pkwy	5,070	4,830	UC	4,950	4,870	5,070	4,930	4,980	4,440	3,990	15,600	2/17/2021	Urban Major Collector
158	HALL	N COURTENAY-N TROPICAL	2,690	2,960	UC	2,950	3,080	3,270	3,010	2,920	2,950	980	15,600	1/27/2021	Urban Minor Collector
138	LUCAS	N TROPICAL-N COURTENAY	2,720	2,970	2,740	3,020	3,180	3,570	3,060	2,730	3,410	3,090	15,600	1/27/2021	Urban Minor Collector
153	MERRITT AVE	N TROPICAL-N COURTENAY	2,690	2,720	3,140	3,280	3,240	3,330	3,470	3,470	3,940	3,240	15,600	1/27/2021	Urban Major Collector
	MERRITT AVE	N COURTENAY - SYKES CREEK	14,005	13,790	14,855	15,090	15,970	15,910	13,695	14,645	14,660	13,000			
103	MERRITT AVE	N Courtenay-Plumosa	13,310	13,170	14,080	14,550	NC	14,210	11,910	14,380	15,150	12,780	33,800	1/27/2021	Urban Major Collector
110	MERRITT AVE	Plumosa-Sykes Ck Pkwy	14,700	14,410	15,630	15,630	15,970	15,600	15,480	14,910	14,170	13,220	33,800	2/17/2021	Urban Major Collector
104	NEWFOUND HARB.	END-SR 520	6,610	6,700	6,900	6,950	6,820	7,030	7,040	5,860	6,260	5,400	15,600	2/17/2021	Urban Minor Collector
	N. BANANA RVR	SR 520-SR 528	9,683	9,763	9,737	10,070	10,078	10,850	10,785	8,878	8,802	7,882			
109	N. BANANA RVR	SR 520-SYKES CREEK	6,910	6,960	6,630	6,670	6,600	7,040	7,360	6,850	6,390	6,140	15,600	2/17/2021	Urban Minor Arterial
107	N. BANANA RVR	Sykes Creek-Central	12,240	12,110	12,400	12,900	12,040	13,600	13,250	12,890	12,300	11,680	15,600	2/17/2021	Urban Minor Arterial
102	N. BANANA RVR	Central-Martin Blvd.	9,900	10,220	10,180	10,640	10,770	11,410	11,330	11,200	11,920	10,050	15,600	2/17/2021	Urban Minor Arterial
602	N. BANANA RVR	Martin Blvd.-SR 528				10,550	10,900	11,350	11,200	11,250	11,900	10,010	15,600	2/17/2021	Urban Minor Arterial
613	N. BANANA RVR	SR 528-Sea Ray Drive						4,360	NC	2,200	1,500	1,430	15,600	2/17/2021	Urban Local
	N. COURTENAY	SR 520-SR 528	30,461	30,734	31,339	33,350	31,930	32,329	29,427	29,527	29,001	30,260			
130	N. COURTENAY	SR 520-Merritt	25,360	25,430	26,500	27,810	27,300	26,270	24,240	25,070	25,760	26,150	41,790	1/27/2021	Urban Principal Arterial-Other
131	N. COURTENAY	Merritt-Needle	34,780	34,880	35,440	37,970	35,290	34,940	31,940	32,440	30,220	32,130	41,790	1/27/2021	Urban Principal Arterial-Other
133	N. COURTENAY	Needle-Lucas	33,210	33,180	34,540	36,350	35,520	33,120	32,040	31,530	32,190	34,740	41,790	1/27/2021	Urban Principal Arterial-Other
135	N. COURTENAY	Lucas-Crockett	32,420	32,870	33,160	35,460	33,490	33,740	30,610	30,580	27,630	29,670	41,790	1/27/2021	Urban Principal Arterial-Other
136	N. COURTENAY	Crockett-Pioneer	29,970	30,080	30,230	32,920	30,870	31,730	29,450	28,280	26,690	28,680	41,790	1/27/2021	Urban Principal Arterial-Other
152	N. COURTENAY	Pioneer-S Ramps SR 528	30,120	30,850	30,540	33,730	32,850	32,310	30,010	31,700	33,250	31,170	41,790	1/27/2021	Urban Principal Arterial-Other
155	N. COURTENAY	S Ramps-N Ramps SR 528	27,350	27,850	28,960	29,210	28,190	32,190	27,700	27,090	27,270	29,280	41,790	1/27/2021	Urban Principal Arterial-Other
	N. COURTENAY	SR 528-SPACE COMMERCE WAY	14,103	14,213	14,017	15,580	14,573	15,963	14,640	14,833	14,900	12,893			
140	N. COURTENAY	N Ramps-Hall	20,900	20,420	19,090	22,300	21,170	22,960	20,840	21,200	18,780	18,040	41,790	1/27/2021	Urban Principal Arterial-Other
157	N. COURTENAY	Hall-N Tropical	13,040	13,570	14,270	15,090	13,490	15,220	14,890	14,320	15,610	14,330	41,790	1/27/2021	Urban Principal Arterial-Other
141	N. COURTENAY	N. Tropical-Space Commerce Way	8,370	8,650	8,690	9,350	9,060	9,710	8,790	8,980	10,310	6,310	40,300	1/27/2021	Rural Principal Arterial Other
	N. TROPICAL TR	SR 520-PIONEER	4,620	4,665	4,658	5,233	5,388	6,620	5,570	5,106	5,083	5,040			
147	N. TROPICAL TR	SR 520-Merritt	7,200	7,440	7,420	8,170	8,260	8,840	8,620	7,690	8,240	8,100	15,600	1/27/2021	Urban Major Collector
148	N. TROPICAL TR	Merritt-Lucas	5,600	5,660	5,550	6,190	6,320	6,380	6,880	6,660	6,270	6,110	15,600	1/27/2021	Urban Major Collector
145	N. TROPICAL TR	Lucas-Crockett	3,790	3,700	3,790	4,370	4,640	4,640	4,500	3,870	3,930	3,990	15,600	1/27/2021	Urban Major Collector
156	N. TROPICAL TR	Crockett-Pioneer	1,890	1,860	1,870	2,200	2,330	NC	2,280	2,210	1,890	1,960	15,600	1/27/2021	Urban Major Collector
	N. TROPICAL TR	GRANT-N COURTENAY	1,020	1,515	1,455	1,585	1,273	1,800	1,360	1,710	1,403	1,295			
144	N. TROPICAL TR	Grant-Hall	580	NC	UC	NC	660	NC	690	NC	760	NC	15,600	3/12/2020	Urban Major Collector
143	N. TROPICAL TR	Hall-Crisafulli	NC	1,670	1,530	1,640	1,720	1,800	1,710	1,680	1,560	870	15,600	1/27/2021	Urban Major Collector
142	N. TROPICAL TR	Crisafulli-N Courtenay	1,460	1,360	1,380	1,490	1,440	1,800	1,680	1,740	1,890	1,720	15,600	1/27/2021	Urban Major Collector
	PLUMOSA	CONE-MERRITT AVE	5,600	5,475		5,710	5,705	6,280	5,960	6,710	5,280	4,710			
116	PLUMOSA	Cone-Fortenberry	5,630	NC	NC	NC	5,010	NC	5,540	NC	4,820	NC	15,600	3/5/2020	Urban Minor Collector
120	PLUMOSA	Fortenberry-SR 520	NC	5,240	NC	5,190	NC	NC	NC	NC	NC	4,160	15,600	2/17/2021	Urban Minor Collector
106	PLUMOSA	SR 520-Merritt Ave	5,570	5,710	NC	6,230	6,400	6,280	6,380	6,710	5,740	5,260	15,600	2/4/2021	Urban Minor Collector
105	S. BANANA DR.	END-SR 520	1,930	2,230	1,920	2,200	2,120	2,390	2,520	2,080	2,230	2,340	12,480	2/17/2021	Urban Major Collector
	S. COURTENAY	PINEDA-FORTENBERRY	10,998	10,983	9,437	11,240	10,605	10,868	11,470	11,235	12,113	10,198			
112	S. TROPICAL TR	PINEDA-S COURTENAY	7,270	7,170	7,320	7,520	7,390	7,400	8,130	7,960	8,600	7,530	12,480	3/3/2021	Urban Minor Arterial
113	S. COURTENAY	S. Tropical Tr-Banana	9,370	9,140	9,160	9,340	8,820	9,500	9,490	9,680	10,300	8,890	15,600	2/17/2021	Urban Minor Arterial
114	S. COURTENAY	Banana-Cone	11,850	11,910	11,830	12,030	10,890	10,860	12,260	11,430	13,010	10,970	15,600	2/16/2021	Urban Minor Arterial
118	S. COURTENAY	Cone-Fortenberry	15,500	15,710	NC	16,070	15,320	15,710	16,000	15,870	16,540	13,400	15,600	2/4/2021	Urban Minor Arterial

*"Note: 2016 AADT's Beaches area were counted twice in 2016 and the AADT listed is the average of the two counts.
NC=Not Counted; UC=Under Construction*

SPACE COAST TRANSPORTATION PLANNING ORGANIZATION TRAFFIC COUNTS: 2012 - 2021

ID	ROAD	SEGMENT (Sections)	2012 AADT	2013 AADT	2014 AADT	2015 AADT	2016 AADT	2017 AADT	2018 AADT	2019 AADT	2020 AADT	2021 AADT	Current MAV	Last Count Taken	Functional Classification
AREA: MERRITT ISLAND															
	S. COURTENAY	Fortenberry-SR 520	12,587	12,400		13,097	12,103	13,100	18,760	18,625	17,805	17,350			
122	S. COURTENAY	Fortenberry-Magnolia	16,990	16,600	NC	18,570	17,500	17,210	17,900	17,710	17,160	16,840	33,800	2/4/2021	Urban Minor Arterial
139	S. COURTENAY	Magnolia-SR 520	19,410	19,300	UC	19,320	17,330	20,550	19,620	19,540	18,450	17,860	33,800	1/27/2021	Urban Minor Arterial
111	S. TROPICAL TR	S PATRICK-PINEDA	1,360	1,300	1,340	1,400	1,480	1,540	1,490	1,600	1,740	1,550	12,480	3/3/2021	Urban Major Collector
	S. TROPICAL TR	S COURTENAY-SR 520	4,097	4,283	4,353	4,510	4,377	4,610	4,627	4,253	4,887	4,363			
125	S. TROPICAL TR	S Courtenay-Plantation	1,150	1,260	1,160	1,210	1,270	1,220	1,350	1,320	1,520	1,290	12,480	3/3/2021	Urban Major Collector
126	S. TROPICAL TR	Plantation-Cone	6,670	6,760	6,780	7,030	6,780	7,090	7,140	6,590	7,410	6,730	12,480	3/3/2021	Urban Major Collector
124	S. TROPICAL TR	Cone-SR 520	4,470	4,830	5,120	5,290	5,080	5,520	5,390	4,850	5,730	5,070	12,480	2/4/2021	Urban Major Collector
603	SPACE COMMERCE WAY	SR 3-NASA CAUSEWAY				3,090	3,040	3,780	3,440	4,960	3,990	3,270	12,900	1/27/2021	Rural Principal Arterial Other
	SR 520	HUMPHREY BR-S. BANANA	30,878	32,220	33,311	34,200	32,467	30,929	29,694	29,844	30,794	30,016			
101	SR 520	Bridge-N,Tropical	NC	44,390	46,090	48,440	44,400	44,820	39,660	43,440	44,660	44,030	59,900	3/10/2021	Urban Principal Arterial-Other
148	SR 520	N,Tropical-SR 3	37,670	37,240	34,900	39,820	37,210	36,850	35,640	35,120	33,180	37,330	59,900	1/27/2021	Urban Principal Arterial-Other
97	SR 520	SR 3-Plaza ent	33,430	31,820	34,410	33,630	32,070	29,870	28,700	25,840	31,100	30,030	62,900	1/27/2021	Urban Principal Arterial-Other
98	SR 520	Plaza ent-Plumosa	30,530	31,860	34,130	33,790	31,800	29,940	30,490	31,230	27,800	29,680	62,900	2/4/2021	Urban Principal Arterial-Other
99	SR 520	Plumosa-Mall ent	32,560	30,560	32,780	32,140	31,640	28,750	25,300	28,870	26,780	28,180	62,900	3/3/2021	Urban Principal Arterial-Other
100	SR 520	Mall ent-SykesCrkPkw	26,270	26,010	28,740	27,140	24,810	23,660	24,130	23,260	25,190	23,830	62,900	2/17/2021	Urban Principal Arterial-Other
149	SR 520	Sykes-Newfound HrbDr	32,270	32,520	33,160	34,480	35,170	30,740	31,000	30,070	26,850	28,480	62,900	3/3/2021	Urban Principal Arterial-Other
150	SR 520	Newfound Hbr-N Banana	27,330	27,290	28,940	29,920	28,670	26,820	26,050	25,830	NC	24,780	62,900	2/17/2021	Urban Principal Arterial-Other
151	SR 520	N Banana-S Banana	26,960	26,290	26,650	28,440	26,430	26,910	26,280	24,920	NC	23,800	62,900	2/17/2021	Urban Principal Arterial-Other
	SR 528	US 1-SR 401	35,343	37,053	37,850	39,243	37,940	39,587	38,480	39,403	47,357	36,517			
128	SR 528	US 1-N COURTENAY	43,000	44,700	45,760	49,740	48,660	48,600	44,630	46,100	55,910	46,300	74,400	1/27/2021	Urban Principal Arterial-Other
129	SR 528	N Crtny-N Banana Rv Dr	32,770	33,630	36,360	32,570	31,070	36,810	37,340	37,570	44,790	35,050	74,400	1/27/2021	Urban Principal Arterial-Other
127	SR 528	N Banana Rv Dr-SR 401	30,260	32,830	31,430	35,420	34,090	33,350	33,470	34,540	41,370	28,200	74,400	3/3/2021	Urban Principal Arterial-Other
123	SYKES CREEK	FORTENBERRY-SR 520	5,490	5,610	NC	5,610	5,390	5,440	4,830	4,670	4,850	4,050	33,800	2/17/2021	Urban Major Collector
121	SYKES CREEK	SR 520-MERRITT	12,010	11,770	12,210	12,640	12,680	12,070	12,570	12,010	12,910	10,770	39,800	2/17/2021	Urban Major Collector
108	SYKES CREEK	MERRITT-N BANANA	9,700	9,890	NC	10,610	11,080	10,970	10,660	10,090	11,410	9,680	17,700	2/17/2021	Urban Major Collector

**Note: 2016 AADT's Beaches area were counted twice in 2016 and the AADT listed is the average of the two counts.*
NC=Not Counted; UC=Under Construction

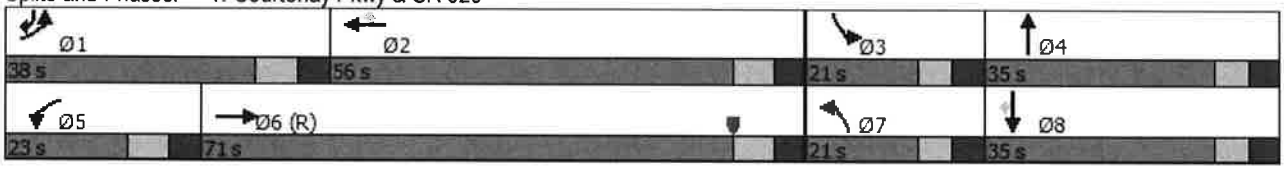
APPENDIX H
Synchro Outputs

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	443	759	118	492	136	204	485	220	431	393
Future Volume (vph)	443	759	118	492	136	204	485	220	431	393
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA	pm+ov
Protected Phases	1	6	5	2		7	4	3	8	1
Permitted Phases					2					8
Detector Phase	1	6	5	2	2	7	4	3	8	1
Switch Phase										
Minimum Initial (s)	6.0	15.0	6.0	15.0	15.0	6.0	8.0	6.0	8.0	6.0
Minimum Split (s)	14.7	23.7	14.7	23.7	23.7	13.9	18.6	13.9	18.6	14.7
Total Split (s)	38.0	71.0	23.0	56.0	56.0	21.0	35.0	21.0	35.0	38.0
Total Split (%)	25.3%	47.3%	15.3%	37.3%	37.3%	14.0%	23.3%	14.0%	23.3%	25.3%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.1	4.1	4.1	4.1	4.8
All-Red Time (s)	3.9	3.9	3.9	3.9	3.9	3.8	3.8	3.8	3.8	3.9
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)	8.7	8.7	8.7	8.7	8.7	7.9	7.9	7.9	7.9	8.7
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	Max	Max	None	None	None	None	None

Intersection Summary

Cycle Length: 150
Actuated Cycle Length: 150
Offset: 37 (25%), Referenced to phase 6:EBT, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 1: Courtenay Pkwy & SR 520



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	443	759	201	118	492	136	204	485	67	220	431	393
Future Volume (veh/h)	443	759	201	118	492	136	204	485	67	220	431	393
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1856	1841	1885	1841	1870	1870	1885	1870	1870	1870	1870
Adj Flow Rate, veh/h	466	799	212	124	518	143	215	511	71	232	454	414
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	3	4	1	4	2	2	1	2	2	2	2
Cap, veh/h	526	1669	439	173	1585	500	261	556	77	277	641	928
Arrive On Green	0.15	0.42	0.42	0.02	0.10	0.10	0.08	0.18	0.18	0.08	0.18	0.18
Sat Flow, veh/h	3456	3993	1051	3483	5025	1585	3456	3160	437	3456	3554	2790
Grp Volume(v), veh/h	466	675	336	124	518	143	215	289	293	232	454	414
Grp Sat Flow(s),veh/h/ln	1728	1689	1666	1742	1675	1585	1728	1791	1806	1728	1777	1395
Q Serve(g_s), s	19.8	21.8	22.1	5.3	14.3	12.5	9.2	23.8	24.0	9.9	18.0	17.4
Cycle Q Clear(g_c), s	19.8	21.8	22.1	5.3	14.3	12.5	9.2	23.8	24.0	9.9	18.0	17.4
Prop In Lane	1.00		0.63	1.00		1.00	1.00		0.24	1.00		1.00
Lane Grp Cap(c), veh/h	526	1412	697	173	1585	500	261	315	318	277	641	928
V/C Ratio(X)	0.89	0.48	0.48	0.72	0.33	0.29	0.82	0.92	0.92	0.84	0.71	0.45
Avail Cap(c_a), veh/h	675	1412	697	332	1585	500	302	324	326	302	642	929
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.97	0.97	0.97	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	62.3	31.7	31.8	72.7	52.4	51.6	68.4	60.7	60.8	68.0	57.8	39.2
Incr Delay (d2), s/veh	11.1	1.2	2.4	5.3	0.5	1.4	14.9	29.4	30.4	17.3	3.6	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.4	8.9	9.2	2.5	6.5	5.5	4.6	13.3	13.6	5.0	8.4	6.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	73.4	32.9	34.2	78.0	53.0	53.0	83.2	90.1	91.3	85.3	61.3	39.5
LnGrp LOS	E	C	C	E	D	D	F	F	F	F	E	D
Approach Vol, veh/h		1477			785			797			1100	
Approach Delay, s/veh		46.0			56.9			88.7			58.2	
Approach LOS		D			E			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	31.6	56.0	19.9	34.3	16.1	71.4	19.2	35.0
Change Period (Y+Rc), s	* 8.7	* 8.7	* 7.9	* 7.9	* 8.7	* 8.7	* 7.9	* 7.9
Max Green Setting (Gmax), s	* 29	* 47	* 13	* 27	* 14	* 62	* 13	* 27
Max Q Clear Time (g_c+I1), s	21.8	16.3	11.9	26.0	7.3	24.1	11.2	20.0
Green Ext Time (p_c), s	1.0	3.9	0.1	0.4	0.2	7.4	0.1	2.7

Intersection Summary	
HCM 6th Ctrl Delay	59.5
HCM 6th LOS	E

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	81	865	66	766	44	65	21	72
Future Volume (vph)	81	865	66	766	44	65	21	72
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	1	6	5	2	7	4	3	8
Permitted Phases								
Detector Phase	1	6	5	2	7	4	3	8
Switch Phase								
Minimum Initial (s)	6.0	15.0	6.0	15.0	6.0	8.0	6.0	8.0
Minimum Split (s)	13.1	22.1	13.1	22.1	13.4	15.4	13.4	15.4
Total Split (s)	24.0	81.0	24.0	81.0	20.0	27.0	18.0	25.0
Total Split (%)	16.0%	54.0%	16.0%	54.0%	13.3%	18.0%	12.0%	16.7%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.0	4.0	4.0	4.0
All-Red Time (s)	2.3	2.3	2.3	2.3	3.4	3.4	3.4	3.4
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.1	7.1	7.1	7.1	7.4	7.4	7.4	7.4
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	None	C-Max	None	None	None	None

Intersection Summary

Cycle Length: 150
Actuated Cycle Length: 150
Offset: 111 (74%), Referenced to phase 2:WBT, Start of Yellow
Natural Cycle: 65
Control Type: Actuated-Coordinated

Splits and Phases: 2: Plumosa St & SR 520



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	81	865	122	66	766	33	44	65	41	21	72	59
Future Volume (veh/h)	81	865	122	66	766	33	44	65	41	21	72	59
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1841	1841	1900	1856	1900	1826	1856	1870	1826	1841	1870
Adj Flow Rate, veh/h	84	901	127	69	798	34	46	68	43	22	75	61
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	4	4	0	3	0	5	3	2	5	4	2
Cap, veh/h	105	2808	394	88	3090	131	59	110	70	42	88	71
Arrive On Green	0.02	0.21	0.21	0.05	0.62	0.62	0.03	0.10	0.10	0.02	0.09	0.09
Sat Flow, veh/h	1781	4453	625	1810	4983	212	1739	1063	672	1739	939	764
Grp Volume(v), veh/h	84	677	351	69	540	292	46	0	111	22	0	136
Grp Sat Flow(s),veh/h/ln	1781	1675	1728	1810	1689	1817	1739	0	1735	1739	0	1703
Q Serve(g_s), s	7.0	25.7	25.9	5.7	10.9	10.9	3.9	0.0	9.2	1.9	0.0	11.8
Cycle Q Clear(g_c), s	7.0	25.7	25.9	5.7	10.9	10.9	3.9	0.0	9.2	1.9	0.0	11.8
Prop In Lane	1.00		0.36	1.00		0.12	1.00		0.39	1.00		0.45
Lane Grp Cap(c), veh/h	105	2112	1090	88	2094	1127	59	0	180	42	0	159
V/C Ratio(X)	0.80	0.32	0.32	0.78	0.26	0.26	0.78	0.00	0.62	0.53	0.00	0.85
Avail Cap(c_a), veh/h	201	2112	1090	204	2094	1127	146	0	227	123	0	200
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.84	0.84	0.84	0.98	0.98	0.98	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	72.6	32.1	32.2	70.6	12.9	12.9	71.9	0.0	64.4	72.4	0.0	67.0
Incr Delay (d2), s/veh	11.0	0.3	0.7	13.8	0.3	0.5	19.0	0.0	3.4	9.9	0.0	24.2
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	0.0
%ile BackOfQ(50%),veh/ln	3.6	11.7	12.2	2.9	4.0	4.4	2.1	0.0	4.2	1.0	0.0	6.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	83.6	32.5	32.8	84.3	13.2	13.4	90.9	0.0	67.8	82.3	0.0	91.2
LnGrp LOS	F	C	C	F	B	B	F	A	E	F	A	F
Approach Vol, veh/h		1112			901			157			158	
Approach Delay, s/veh		36.5			18.7			74.6			90.0	
Approach LOS		D			B			E			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	100.1	11.0	22.9	14.4	101.7	12.5	21.4
Change Period (Y+Rc), s	* 7.1	* 7.1	7.4	7.4	* 7.1	* 7.1	7.4	7.4
Max Green Setting (Gmax), s	* 17	* 74	10.6	19.6	* 17	* 74	12.6	17.6
Max Q Clear Time (g_c+I1), s	9.0	12.9	3.9	11.2	7.7	27.9	5.9	13.8
Green Ext Time (p_c), s	0.1	5.7	0.0	0.3	0.1	7.6	0.0	0.2

Intersection Summary	
HCM 6th Ctrl Delay	35.8
HCM 6th LOS	D

Notes

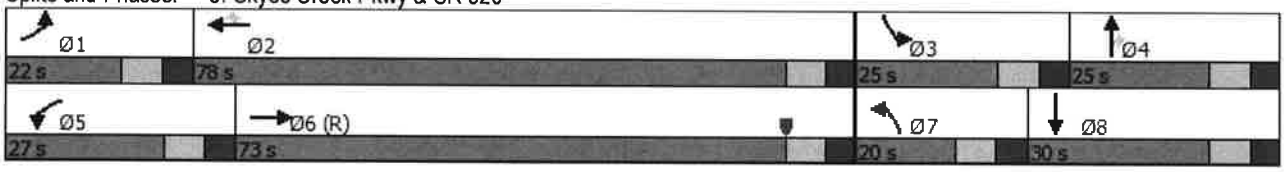
User approved pedestrian interval to be less than phase max green.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	125	622	67	670	253	16	63	114	221	72	110
Future Volume (vph)	125	622	67	670	253	16	63	114	221	72	110
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Free
Protected Phases	1	6	5	2		7	4		3	8	
Permitted Phases					2			4			Free
Detector Phase	1	6	5	2	2	7	4	4	3	8	
Switch Phase											
Minimum Initial (s)	6.0	15.0	6.0	15.0	15.0	6.0	8.0	8.0	6.0	8.0	
Minimum Split (s)	14.3	23.3	14.3	23.3	23.3	14.4	16.4	16.4	14.4	16.4	
Total Split (s)	22.0	73.0	27.0	78.0	78.0	20.0	25.0	25.0	25.0	30.0	
Total Split (%)	14.7%	48.7%	18.0%	52.0%	52.0%	13.3%	16.7%	16.7%	16.7%	20.0%	
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	
All-Red Time (s)	3.5	3.5	3.5	3.5	3.5	3.6	3.6	3.6	3.6	3.6	
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)	8.3	8.3	8.3	8.3	8.3	8.4	8.4	8.4	8.4	8.4	
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	C-Max	None	Max	Max	None	None	None	None	None	

Intersection Summary

Cycle Length: 150
Actuated Cycle Length: 150
Offset: 112 (75%), Referenced to phase 6:EBT, Start of Yellow
Natural Cycle: 70
Control Type: Actuated-Coordinated

Splits and Phases: 3: Skyes Creek Pkwy & SR 520



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	125	622	22	67	670	253	16	63	114	221	72	110
Future Volume (veh/h)	125	622	22	67	670	253	16	63	114	221	72	110
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1826	1826	1870	1856	1870	1811	1870	1885	1870	1885	1885
Adj Flow Rate, veh/h	136	676	24	73	728	275	17	68	124	240	78	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	1	5	5	2	3	2	6	2	1	2	1	1
Cap, veh/h	184	2369	84	132	2354	1296	35	324	146	289	291	
Arrive On Green	0.05	0.48	0.48	0.04	0.46	0.46	0.02	0.09	0.09	0.08	0.15	0.00
Sat Flow, veh/h	3483	4943	175	3456	5066	2790	1725	3554	1598	3456	1885	1598
Grp Volume(v), veh/h	136	454	246	73	728	275	17	68	124	240	78	0
Grp Sat Flow(s),veh/h/ln	1742	1662	1794	1728	1689	1395	1725	1777	1598	1728	1885	1598
Q Serve(g_s), s	5.8	12.4	12.4	3.1	13.5	8.8	1.5	2.7	11.5	10.3	5.5	0.0
Cycle Q Clear(g_c), s	5.8	12.4	12.4	3.1	13.5	8.8	1.5	2.7	11.5	10.3	5.5	0.0
Prop In Lane	1.00		0.10	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	184	1593	860	132	2354	1296	35	324	146	289	291	
V/C Ratio(X)	0.74	0.28	0.29	0.55	0.31	0.21	0.49	0.21	0.85	0.83	0.27	
Avail Cap(c_a), veh/h	318	1593	860	431	2354	1296	133	393	177	382	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	1.00
Upstream Filter(I)	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	70.0	23.5	23.6	70.9	25.1	23.8	72.7	63.2	67.2	67.7	55.9	0.0
Incr Delay (d2), s/veh	5.5	0.4	0.8	3.6	0.3	0.4	10.0	0.3	26.9	11.0	0.5	0.0
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	0.0
%ile BackOfQ(50%),veh/ln	2.7	4.9	5.4	1.4	5.4	2.9	0.7	1.2	5.7	4.9	2.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	75.5	24.0	24.4	74.5	25.4	24.2	82.7	63.5	94.0	78.7	56.4	0.0
LnGrp LOS	E	C	C	E	C	C	F	E	F	E	E	
Approach Vol, veh/h		836			1076			209			318	A
Approach Delay, s/veh		32.5			28.5			83.2			73.2	
Approach LOS		C			C			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.2	78.0	21.0	22.1	14.0	80.2	11.4	31.6
Change Period (Y+Rc), s	8.3	8.3	* 8.4	* 8.4	8.3	8.3	* 8.4	* 8.4
Max Green Setting (Gmax), s	13.7	69.7	* 17	* 17	18.7	64.7	* 12	* 22
Max Q Clear Time (g_c+I1), s	7.8	15.5	12.3	13.5	5.1	14.4	3.5	7.5
Green Ext Time (p_c), s	0.2	6.7	0.3	0.2	0.1	4.6	0.0	0.2

Intersection Summary	
HCM 6th Ctrl Delay	40.4
HCM 6th LOS	D

Notes

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

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

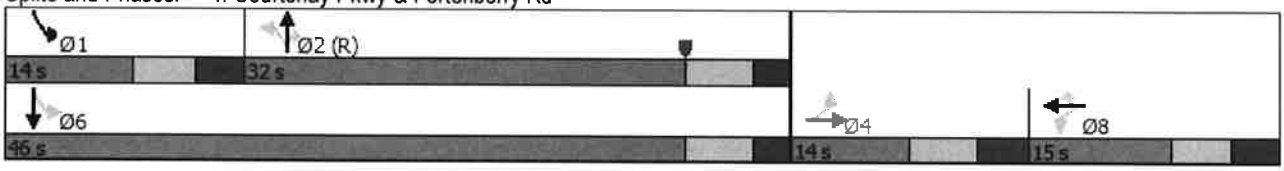
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	1	0	41	0	71	1	609	65	91	594
Future Volume (vph)	1	0	41	0	71	1	609	65	91	594
Turn Type	Perm	NA	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA
Protected Phases		4		8			2		1	6
Permitted Phases	4		8		8	2		2	6	
Detector Phase	4	4	8	8	8	2	2	2	1	6
Switch Phase										
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	12.0	12.0	12.0	5.0	12.0
Minimum Split (s)	14.0	14.0	13.6	13.6	13.6	18.2	18.2	18.2	11.6	18.2
Total Split (s)	14.0	14.0	15.0	15.0	15.0	32.0	32.0	32.0	14.0	46.0
Total Split (%)	18.7%	18.7%	20.0%	20.0%	20.0%	42.7%	42.7%	42.7%	18.7%	61.3%
Yellow Time (s)	4.0	4.0	3.6	3.6	3.6	4.0	4.0	4.0	3.6	4.0
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	2.2	2.2	2.2	3.0	2.2
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		7.0		6.6	6.6	6.2	6.2	6.2	6.6	6.2
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lag	Lag	Lag	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	C-Max	C-Max	C-Max	None	Max

Intersection Summary

Cycle Length: 75
Actuated Cycle Length: 75
Offset: 32 (43%), Referenced to phase 2:NBTL, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 4: Courtenay Pkwy & Fortenberry Rd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	0	0	41	0	71	1	609	65	91	594	0
Future Volume (veh/h)	1	0	0	41	0	71	1	609	65	91	594	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1826	1900	1841	1900	1870	1870	1900	1841	1900
Adj Flow Rate, veh/h	1	0	0	42	0	73	1	628	67	94	612	0
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	0.97
Percent Heavy Veh, %	0	0	0	5	0	4	0	2	2	0	4	0
Cap, veh/h	181	0	0	227	0	133	584	2110	941	585	2585	0
Arrive On Green	0.09	0.00	0.00	0.09	0.00	0.09	0.59	0.59	0.59	0.06	0.74	0.00
Sat Flow, veh/h	1003	0	0	1538	0	1560	823	3554	1585	1810	3589	0
Grp Volume(v), veh/h	1	0	0	42	0	73	1	628	67	94	612	0
Grp Sat Flow(s),veh/h/ln	1003	0	0	1538	0	1560	823	1777	1585	1810	1749	0
Q Serve(g_s), s	0.1	0.0	0.0	0.0	0.0	3.4	0.0	6.5	1.3	1.3	4.2	0.0
Cycle Q Clear(g_c), s	1.7	0.0	0.0	1.6	0.0	3.4	0.0	6.5	1.3	1.3	4.2	0.0
Prop In Lane	1.00		0.00	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	181	0	0	227	0	133	584	2110	941	585	2585	0
V/C Ratio(X)	0.01	0.00	0.00	0.19	0.00	0.55	0.00	0.30	0.07	0.16	0.24	0.00
Avail Cap(c_a), veh/h	193	0	0	266	0	175	584	2110	941	660	2585	0
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	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	32.9	0.0	0.0	32.1	0.0	32.9	6.2	7.5	6.5	4.7	3.1	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.4	0.0	3.5	0.0	0.4	0.1	0.1	0.2	0.0
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	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.7	0.0	1.4	0.0	2.1	0.4	0.4	0.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.9	0.0	0.0	32.5	0.0	36.5	6.2	7.9	6.6	4.8	3.3	0.0
LnGrp LOS	C	A	A	C	A	D	A	A	A	A	A	A
Approach Vol, veh/h		1			115			696			706	
Approach Delay, s/veh		32.9			35.0			7.8			3.5	
Approach LOS		C			D			A			A	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	10.9	50.7		13.4		61.6		13.4				
Change Period (Y+Rc), s	6.6	* 6.2		7.0		* 6.2		* 7				
Max Green Setting (Gmax), s	7.4	* 26		7.0		* 40		* 8.4				
Max Q Clear Time (g_c+I1), s	3.3	8.5		3.7		6.2		5.4				
Green Ext Time (p_c), s	0.1	4.1		0.0		4.5		0.1				

Intersection Summary	
HCM 6th Ctrl Delay	7.9
HCM 6th LOS	A

Notes

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

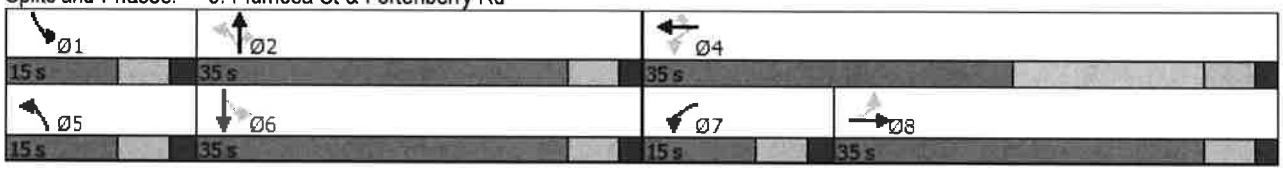
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	12	54	83	36	21	14	125	123	22	169
Future Volume (vph)	12	54	83	36	21	14	125	123	22	169
Turn Type	Perm	NA	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA
Protected Phases		8	7	4		5	2		1	6
Permitted Phases	8		4		4	2		2	6	
Detector Phase	8	8	7	4	4	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	7.0	7.0	5.0	7.0	7.0	5.0	14.0	14.0	5.0	14.0
Minimum Split (s)	13.0	13.0	11.0	13.0	13.0	11.0	20.0	20.0	11.0	20.0
Total Split (s)	35.0	35.0	15.0	35.0	35.0	15.0	35.0	35.0	15.0	35.0
Total Split (%)	35.0%	35.0%	15.0%	35.0%	35.0%	15.0%	35.0%	35.0%	15.0%	35.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lag	Lag	Lead			Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes			Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 66.8
Natural Cycle: 55
Control Type: Actuated-Uncoordinated

Splits and Phases: 5: Plumosa St & Fortenberry Rd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	12	54	43	83	36	21	14	125	123	22	169	24
Future Volume (veh/h)	12	54	43	83	36	21	14	125	123	22	169	24
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1841	1900	1870	1900	1826	1900	1826	1900	1900	1870	1767
Adj Flow Rate, veh/h	13	59	47	91	40	23	15	137	135	24	186	26
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	4	0	2	0	5	0	5	0	0	2	9
Cap, veh/h	247	97	77	290	501	408	586	799	705	599	717	100
Arrive On Green	0.10	0.10	0.10	0.07	0.26	0.26	0.02	0.44	0.44	0.03	0.45	0.45
Sat Flow, veh/h	1360	949	756	1781	1900	1547	1810	1826	1610	1810	1606	224
Grp Volume(v), veh/h	13	0	106	91	40	23	15	137	135	24	0	212
Grp Sat Flow(s),veh/h/ln	1360	0	1705	1781	1900	1547	1810	1826	1610	1810	0	1830
Q Serve(g_s), s	0.6	0.0	3.9	2.8	1.0	0.7	0.3	3.0	3.4	0.5	0.0	4.8
Cycle Q Clear(g_c), s	0.6	0.0	3.9	2.8	1.0	0.7	0.3	3.0	3.4	0.5	0.0	4.8
Prop In Lane	1.00		0.44	1.00		1.00	1.00		1.00	1.00		0.12
Lane Grp Cap(c), veh/h	247	0	174	290	501	408	586	799	705	599	0	817
V/C Ratio(X)	0.05	0.00	0.61	0.31	0.08	0.06	0.03	0.17	0.19	0.04	0.00	0.26
Avail Cap(c_a), veh/h	704	0	746	405	832	677	799	799	705	796	0	817
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	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	27.0	0.0	28.5	22.4	18.3	18.2	10.0	11.3	11.4	9.7	0.0	11.5
Incr Delay (d2), s/veh	0.1	0.0	3.4	0.6	0.1	0.1	0.0	0.5	0.6	0.0	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	1.7	1.2	0.4	0.2	0.1	1.2	1.2	0.2	0.0	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.1	0.0	31.9	23.1	18.4	18.3	10.0	11.8	12.0	9.7	0.0	12.2
LnGrp LOS	C	A	C	C	B	B	B	B	B	A	A	B
Approach Vol, veh/h		119			154			287			236	
Approach Delay, s/veh		31.4			21.1			11.8			12.0	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2		4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.8	35.0		23.5	7.2	35.6	10.7	12.8
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	9.0	29.0		29.0	9.0	29.0	9.0	29.0
Max Q Clear Time (g_c+I1), s	2.5	5.4		3.0	2.3	6.8	4.8	5.9
Green Ext Time (p_c), s	0.0	1.1		0.2	0.0	1.1	0.1	0.5

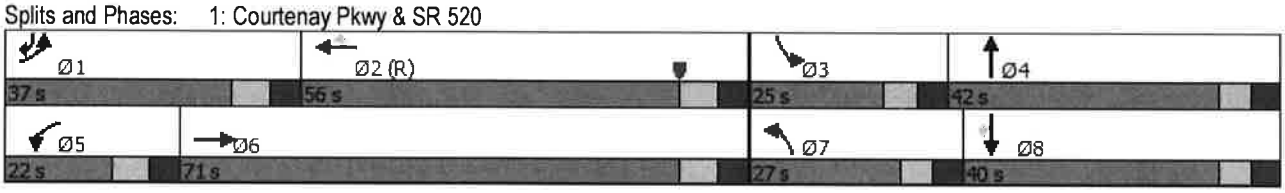
Intersection Summary			
HCM 6th Ctrl Delay		16.6	
HCM 6th LOS		B	

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	438	839	132	895	272	343	546	299	517	475
Future Volume (vph)	438	839	132	895	272	343	546	299	517	475
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA	pm+ov
Protected Phases	1	6	5	2		7	4	3	8	1
Permitted Phases					2					8
Detector Phase	1	6	5	2	2	7	4	3	8	1
Switch Phase										
Minimum Initial (s)	6.0	15.0	6.0	15.0	15.0	6.0	8.0	6.0	8.0	6.0
Minimum Split (s)	14.7	23.7	14.7	23.7	23.7	13.9	15.9	13.9	15.9	14.7
Total Split (s)	37.0	71.0	22.0	56.0	56.0	27.0	42.0	25.0	40.0	37.0
Total Split (%)	23.1%	44.4%	13.8%	35.0%	35.0%	16.9%	26.3%	15.6%	25.0%	23.1%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.1	4.1	4.1	4.1	4.8
All-Red Time (s)	3.9	3.9	3.9	3.9	3.9	3.8	3.8	3.8	3.8	3.9
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)	8.7	8.7	8.7	8.7	8.7	7.9	7.9	7.9	7.9	8.7
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	None	C-Max	C-Max	None	None	None	None	None

Intersection Summary

Cycle Length: 160
Actuated Cycle Length: 160
Offset: 20 (13%), Referenced to phase 2:WBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 1: Courtenay Pkwy & SR 520



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	438	839	156	132	895	272	343	546	68	299	517	475
Future Volume (veh/h)	438	839	156	132	895	272	343	546	68	299	517	475
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1885	1885	1885	1870	1885	1870	1870	1900	1900	1900	1885
Adj Flow Rate, veh/h	466	893	166	140	952	289	365	581	72	318	550	505
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	1	1	1	2	1	2	2	0	0	0	1
Cap, veh/h	520	1907	353	186	1747	547	405	636	79	360	668	937
Arrive On Green	0.15	0.44	0.44	0.02	0.11	0.11	0.12	0.20	0.20	0.10	0.19	0.19
Sat Flow, veh/h	3510	4363	807	3483	5106	1598	3456	3183	394	3510	3610	2812
Grp Volume(v), veh/h	466	701	358	140	952	289	365	324	329	318	550	505
Grp Sat Flow(s),veh/h/ln	1755	1716	1740	1742	1702	1598	1728	1777	1800	1755	1805	1406
Q Serve(g_s), s	20.9	23.1	23.3	6.4	28.2	27.3	16.7	28.5	28.7	14.3	23.4	23.4
Cycle Q Clear(g_c), s	20.9	23.1	23.3	6.4	28.2	27.3	16.7	28.5	28.7	14.3	23.4	23.4
Prop In Lane	1.00		0.46	1.00		1.00	1.00		0.22	1.00		1.00
Lane Grp Cap(c), veh/h	520	1499	760	186	1747	547	405	355	359	360	668	937
V/C Ratio(X)	0.90	0.47	0.47	0.75	0.54	0.53	0.90	0.91	0.92	0.88	0.82	0.54
Avail Cap(c_a), veh/h	621	1499	760	290	1747	547	413	379	384	375	724	981
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.83	0.83	0.83	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	66.9	31.9	31.9	77.5	59.2	58.8	69.7	62.7	62.7	70.9	62.7	43.4
Incr Delay (d2), s/veh	14.0	1.1	2.1	5.1	1.0	3.0	22.2	25.0	25.5	20.7	7.2	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.2	9.7	10.1	3.1	13.1	12.3	8.6	15.3	15.6	7.5	11.4	8.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	80.9	32.9	34.0	82.6	60.2	61.8	91.9	87.7	88.2	91.6	69.9	43.9
LnGrp LOS	F	C	C	F	E	E	F	F	F	F	E	D
Approach Vol, veh/h		1525			1381			1018			1373	
Approach Delay, s/veh		47.9			62.8			89.4			65.3	
Approach LOS		D			E			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	32.4	63.4	24.3	39.8	17.2	78.6	26.6	37.5
Change Period (Y+Rc), s	* 8.7	* 8.7	* 7.9	* 7.9	* 8.7	* 8.7	* 7.9	* 7.9
Max Green Setting (Gmax), s	* 28	* 47	* 17	* 34	* 13	* 62	* 19	* 32
Max Q Clear Time (g_c+I1), s	22.9	30.2	16.3	30.7	8.4	25.3	18.7	25.4
Green Ext Time (p_c), s	0.8	6.7	0.1	1.3	0.2	7.7	0.1	3.1

Intersection Summary	
HCM 6th Ctrl Delay	64.3
HCM 6th LOS	E

Notes

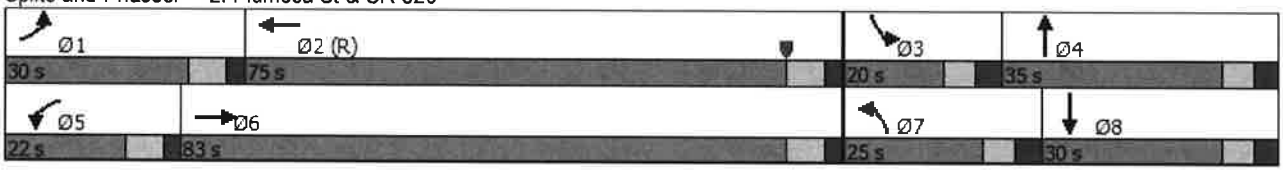
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	117	1162	85	1223	95	94	56	71
Future Volume (vph)	117	1162	85	1223	95	94	56	71
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	1	6	5	2	7	4	3	8
Permitted Phases								
Detector Phase	1	6	5	2	7	4	3	8
Switch Phase								
Minimum Initial (s)	6.0	15.0	6.0	15.0	6.0	8.0	6.0	8.0
Minimum Split (s)	13.2	22.2	13.2	22.2	13.4	15.4	13.4	15.4
Total Split (s)	30.0	83.0	22.0	75.0	25.0	35.0	20.0	30.0
Total Split (%)	18.8%	51.9%	13.8%	46.9%	15.6%	21.9%	12.5%	18.8%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.0	4.0	4.0	4.0
All-Red Time (s)	2.3	2.3	2.3	2.3	3.4	3.4	3.4	3.4
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.1	7.1	7.1	7.1	7.4	7.4	7.4	7.4
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	None	C-Min	None	None	None	None

Intersection Summary

Cycle Length: 160
Actuated Cycle Length: 160
Offset: 102 (64%), Referenced to phase 2:WBT, Start of Yellow
Natural Cycle: 75
Control Type: Actuated-Coordinated

Splits and Phases: 2: Plumosa St & SR 520



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	117	1162	92	85	1223	96	95	94	60	56	71	104
Future Volume (veh/h)	117	1162	92	85	1223	96	95	94	60	56	71	104
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1811	1885	1870	1900	1870	1856	1870	1900	1870	1841	1885	1885
Adj Flow Rate, veh/h	121	1198	95	88	1261	99	98	97	62	58	73	107
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	0.97
Percent Heavy Veh, %	6	1	2	0	2	3	2	0	2	4	1	1
Cap, veh/h	142	2789	221	108	2659	209	119	155	99	74	82	120
Arrive On Green	0.08	0.57	0.57	0.06	0.55	0.55	0.07	0.14	0.14	0.04	0.12	0.12
Sat Flow, veh/h	1725	4861	385	1810	4827	379	1781	1083	692	1753	691	1012
Grp Volume(v), veh/h	121	845	448	88	889	471	98	0	159	58	0	180
Grp Sat Flow(s),veh/h/ln	1725	1716	1816	1810	1702	1802	1781	0	1775	1753	0	1703
Q Serve(g_s), s	11.1	22.3	22.3	7.7	25.4	25.4	8.7	0.0	13.5	5.2	0.0	16.7
Cycle Q Clear(g_c), s	11.1	22.3	22.3	7.7	25.4	25.4	8.7	0.0	13.5	5.2	0.0	16.7
Prop In Lane	1.00		0.21	1.00		0.21	1.00		0.39	1.00		0.59
Lane Grp Cap(c), veh/h	142	1968	1042	108	1875	993	119	0	254	74	0	202
V/C Ratio(X)	0.85	0.43	0.43	0.81	0.47	0.47	0.83	0.00	0.62	0.79	0.00	0.89
Avail Cap(c_a), veh/h	247	1968	1042	169	1875	993	196	0	306	138	0	241
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	1.00
Upstream Filter(I)	0.78	0.78	0.78	0.96	0.96	0.96	0.99	0.00	0.99	1.00	0.00	1.00
Uniform Delay (d), s/veh	72.4	19.3	19.3	74.3	21.8	21.8	73.8	0.0	64.5	75.9	0.0	69.5
Incr Delay (d2), s/veh	10.5	0.5	1.0	14.9	0.8	1.6	13.2	0.0	2.8	16.6	0.0	27.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3	8.8	9.4	4.0	10.1	10.9	4.4	0.0	6.3	2.7	0.0	8.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	82.9	19.8	20.3	89.2	22.7	23.4	86.9	0.0	67.3	92.5	0.0	97.4
LnGrp LOS	F	B	C	F	C	C	F	A	E	F	A	F
Approach Vol, veh/h		1414			1448			257			238	
Approach Delay, s/veh		25.4			26.9			74.8			96.2	
Approach LOS		C			C			E			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.3	95.2	14.1	30.3	16.7	98.9	18.1	26.4
Change Period (Y+Rc), s	* 7.1	* 7.1	7.4	7.4	* 7.1	* 7.1	7.4	7.4
Max Green Setting (Gmax), s	* 23	* 68	12.6	27.6	* 15	* 76	17.6	22.6
Max Q Clear Time (g_c+I1), s	13.1	27.4	7.2	15.5	9.7	24.3	10.7	18.7
Green Ext Time (p_c), s	0.2	11.1	0.0	0.6	0.1	10.6	0.1	0.3

Intersection Summary	
HCM 6th Ctrl Delay	34.9
HCM 6th LOS	C

Notes

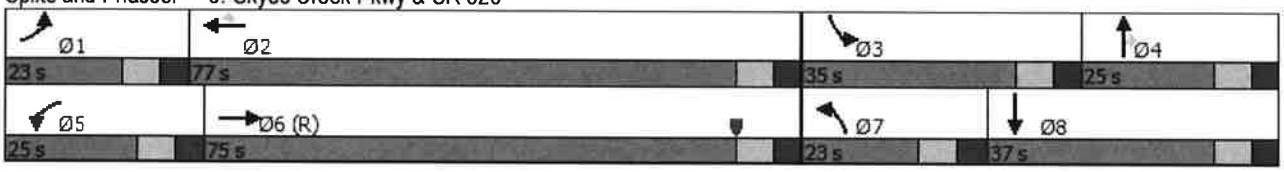
User approved pedestrian interval to be less than phase max green.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	202	842	137	844	285	60	115	176	310	125	153
Future Volume (vph)	202	842	137	844	285	60	115	176	310	125	153
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Free
Protected Phases	1	6	5	2		7	4		3	8	
Permitted Phases					2			4			Free
Detector Phase	1	6	5	2	2	7	4	4	3	8	
Switch Phase											
Minimum Initial (s)	6.0	15.0	6.0	15.0	15.0	6.0	8.0	8.0	6.0	8.0	
Minimum Split (s)	14.3	23.3	14.3	23.3	23.3	14.4	16.4	16.4	14.4	16.4	
Total Split (s)	23.0	75.0	25.0	77.0	77.0	23.0	25.0	25.0	35.0	37.0	
Total Split (%)	14.4%	46.9%	15.6%	48.1%	48.1%	14.4%	15.6%	15.6%	21.9%	23.1%	
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	
All-Red Time (s)	3.5	3.5	3.5	3.5	3.5	3.6	3.6	3.6	3.6	3.6	
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)	8.3	8.3	8.3	8.3	8.3	8.4	8.4	8.4	8.4	8.4	
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	C-Max	None	Max	Max	None	None	None	None	None	

Intersection Summary

Cycle Length: 160
Actuated Cycle Length: 160
Offset: 105 (66%), Referenced to phase 6:EBT, Start of Yellow
Natural Cycle: 70
Control Type: Actuated-Coordinated

Splits and Phases: 3: Skyes Creek Pkwy & SR 520



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	202	842	28	137	844	285	60	115	176	310	125	153
Future Volume (veh/h)	202	842	28	137	844	285	60	115	176	310	125	153
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1900	1870	1856	1856	1900	1870	1870	1885	1856	1885
Adj Flow Rate, veh/h	210	877	29	143	879	297	62	120	183	323	130	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	1	1	0	2	3	3	0	2	2	1	3	1
Cap, veh/h	255	2292	76	189	2175	1188	79	369	164	378	313	
Arrive On Green	0.07	0.45	0.45	0.05	0.43	0.43	0.04	0.10	0.10	0.11	0.17	0.00
Sat Flow, veh/h	3483	5117	169	3456	5066	2768	1810	3554	1585	3483	1856	1598
Grp Volume(v), veh/h	210	588	318	143	879	297	62	120	183	323	130	0
Grp Sat Flow(s),veh/h/ln	1742	1716	1855	1728	1689	1384	1810	1777	1585	1742	1856	1598
Q Serve(g_s), s	9.5	18.3	18.3	6.5	19.2	11.0	5.4	5.0	16.6	14.6	10.0	0.0
Cycle Q Clear(g_c), s	9.5	18.3	18.3	6.5	19.2	11.0	5.4	5.0	16.6	14.6	10.0	0.0
Prop In Lane	1.00		0.09	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	255	1537	831	189	2175	1188	79	369	164	378	313	
V/C Ratio(X)	0.82	0.38	0.38	0.76	0.40	0.25	0.78	0.33	1.11	0.85	0.42	
Avail Cap(c_a), veh/h	320	1537	831	361	2175	1188	165	369	164	579	332	
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	1.00
Upstream Filter(I)	0.88	0.88	0.88	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	73.1	29.4	29.4	74.6	31.5	29.2	75.7	66.5	71.7	70.1	59.5	0.0
Incr Delay (d2), s/veh	11.7	0.6	1.2	6.1	0.6	0.5	15.3	0.5	103.6	7.7	0.9	0.0
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	0.0
%ile BackOfQ(50%),veh/ln	4.6	7.6	8.3	3.0	7.8	3.7	2.9	2.3	11.4	6.8	4.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	84.8	30.1	30.6	80.6	32.1	29.7	91.0	67.0	175.3	77.8	60.4	0.0
LnGrp LOS	F	C	C	F	C	C	F	E	F	E	E	
Approach Vol, veh/h		1116			1319			365			453	A
Approach Delay, s/veh		40.5			36.8			125.4			72.8	
Approach LOS		D			D			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	77.0	25.8	25.0	17.0	80.0	15.4	35.4
Change Period (Y+Rc), s	8.3	8.3	* 8.4	* 8.4	8.3	8.3	* 8.4	* 8.4
Max Green Setting (Gmax), s	14.7	68.7	* 27	* 17	16.7	66.7	* 15	* 29
Max Q Clear Time (g_c+I1), s	11.5	21.2	16.6	18.6	8.5	20.3	7.4	12.0
Green Ext Time (p_c), s	0.2	8.4	0.8	0.0	0.2	6.3	0.1	0.5

Intersection Summary	
HCM 6th Ctrl Delay	53.0
HCM 6th LOS	D

Notes

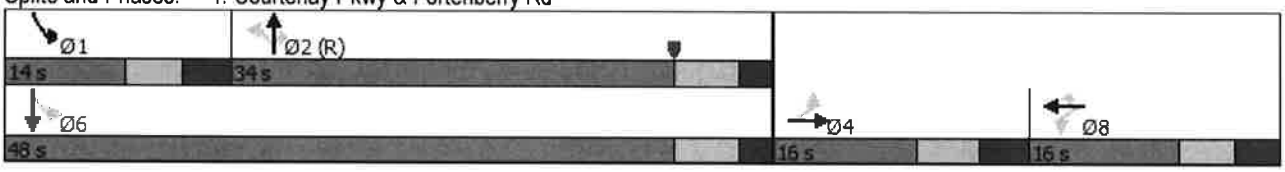
User approved pedestrian interval to be less than phase max green.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	1	0	89	0	173	3	697	61	63	806
Future Volume (vph)	1	0	89	0	173	3	697	61	63	806
Turn Type	Perm	NA	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA
Protected Phases		4		8			2		1	6
Permitted Phases	4		8		8	2		2	6	
Detector Phase	4	4	8	8	8	2	2	2	1	6
Switch Phase										
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	12.0	12.0	12.0	5.0	12.0
Minimum Split (s)	14.0	14.0	13.6	13.6	13.6	18.2	18.2	18.2	11.6	18.2
Total Split (s)	16.0	16.0	16.0	16.0	16.0	34.0	34.0	34.0	14.0	48.0
Total Split (%)	20.0%	20.0%	20.0%	20.0%	20.0%	42.5%	42.5%	42.5%	17.5%	60.0%
Yellow Time (s)	4.0	4.0	3.6	3.6	3.6	4.0	4.0	4.0	3.6	4.0
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	2.2	2.2	2.2	3.0	2.2
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		7.0		6.6	6.6	6.2	6.2	6.2	6.6	6.2
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lag	Lag	Lag	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	C-Max	C-Max	C-Max	None	Max

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 18 (23%), Referenced to phase 2:NBTL, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 4: Courtenay Pkwy & Fortenberry Rd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	0	2	89	0	173	3	697	61	63	806	1
Future Volume (veh/h)	1	0	2	89	0	173	3	697	61	63	806	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1885	1900	1870	1826	1900	1885	1900
Adj Flow Rate, veh/h	1	0	2	96	0	186	3	749	66	68	867	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	1	0	2	5	0	1	0
Cap, veh/h	89	24	107	267	0	188	470	2083	907	502	2634	3
Arrive On Green	0.12	0.00	0.12	0.12	0.00	0.12	0.59	0.59	0.59	0.05	0.72	0.72
Sat Flow, veh/h	249	205	908	1505	0	1598	648	3554	1547	1810	3671	4
Grp Volume(v), veh/h	3	0	0	96	0	186	3	749	66	68	423	445
Grp Sat Flow(s),veh/h/ln	1362	0	0	1505	0	1598	648	1777	1547	1810	1791	1884
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	9.3	0.2	8.8	1.5	1.1	7.0	7.0
Cycle Q Clear(g_c), s	4.6	0.0	0.0	4.6	0.0	9.3	0.2	8.8	1.5	1.1	7.0	7.0
Prop In Lane	0.33		0.67	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	220	0	0	267	0	188	470	2083	907	502	1285	1352
V/C Ratio(X)	0.01	0.00	0.00	0.36	0.00	0.99	0.01	0.36	0.07	0.14	0.33	0.33
Avail Cap(c_a), veh/h	220	0	0	267	0	188	470	2083	907	581	1285	1352
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	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.2	0.0	0.0	33.2	0.0	35.3	6.9	8.7	7.2	5.6	4.2	4.2
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.8	0.0	62.9	0.0	0.5	0.2	0.1	0.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.0	1.8	0.0	6.8	0.0	3.0	0.5	0.3	2.0	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.2	0.0	0.0	34.0	0.0	98.1	6.9	9.2	7.3	5.7	4.9	4.8
LnGrp LOS	C	A	A	C	A	F	A	A	A	A	A	A
Approach Vol, veh/h		3			282			818			936	
Approach Delay, s/veh		31.2			76.3			9.0			4.9	
Approach LOS		C			E			A			A	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	10.5	53.1		16.4		63.6		16.4				
Change Period (Y+Rc), s	6.6	* 6.2		7.0		* 6.2		* 7				
Max Green Setting (Gmax), s	7.4	* 28		9.0		* 42		* 9.4				
Max Q Clear Time (g_c+I1), s	3.1	10.8		6.6		9.0		11.3				
Green Ext Time (p_c), s	0.0	4.9		0.0		6.0		0.0				

Intersection Summary	
HCM 6th Ctrl Delay	16.5
HCM 6th LOS	B

Notes

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

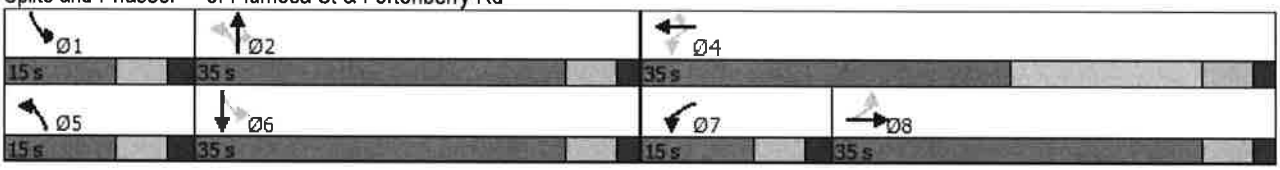
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	25	101	132	119	59	37	160	153	46	125
Future Volume (vph)	25	101	132	119	59	37	160	153	46	125
Turn Type	Perm	NA	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA
Protected Phases		8	7	4		5	2		1	6
Permitted Phases	8		4		4	2		2	6	
Detector Phase	8	8	7	4	4	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	7.0	7.0	5.0	7.0	7.0	5.0	14.0	14.0	5.0	14.0
Minimum Split (s)	13.0	13.0	11.0	13.0	13.0	11.0	20.0	20.0	11.0	20.0
Total Split (s)	35.0	35.0	15.0	35.0	35.0	15.0	35.0	35.0	15.0	35.0
Total Split (%)	35.0%	35.0%	15.0%	35.0%	35.0%	15.0%	35.0%	35.0%	15.0%	35.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lag	Lag	Lead			Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes			Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 75
Natural Cycle: 55
Control Type: Actuated-Uncoordinated

Splits and Phases: 5: Plumosa St & Fortenberry Rd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	101	35	132	119	59	37	160	153	46	125	28
Future Volume (veh/h)	25	101	35	132	119	59	37	160	153	46	125	28
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1885	1900	1870	1900	1870	1900	1885	1856	1841	1885	1900
Adj Flow Rate, veh/h	28	112	39	147	132	66	41	178	170	51	139	31
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	1	0	2	0	2	0	1	3	4	1	0
Cap, veh/h	245	160	56	321	571	476	602	762	636	526	612	136
Arrive On Green	0.12	0.12	0.12	0.10	0.30	0.30	0.04	0.40	0.40	0.04	0.41	0.41
Sat Flow, veh/h	1203	1336	465	1781	1900	1585	1810	1885	1572	1753	1492	333
Grp Volume(v), veh/h	28	0	151	147	132	66	41	178	170	51	0	170
Grp Sat Flow(s),veh/h/ln	1203	0	1801	1781	1900	1585	1810	1885	1572	1753	0	1825
Q Serve(g_s), s	1.5	0.0	5.8	4.9	3.7	2.2	0.9	4.5	5.2	1.2	0.0	4.3
Cycle Q Clear(g_c), s	1.5	0.0	5.8	4.9	3.7	2.2	0.9	4.5	5.2	1.2	0.0	4.3
Prop In Lane	1.00		0.26	1.00		1.00	1.00		1.00	1.00		0.18
Lane Grp Cap(c), veh/h	245	0	216	321	571	476	602	762	636	526	0	748
V/C Ratio(X)	0.11	0.00	0.70	0.46	0.23	0.14	0.07	0.23	0.27	0.10	0.00	0.23
Avail Cap(c_a), veh/h	587	0	728	373	768	641	758	762	636	668	0	748
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	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	28.4	0.0	30.3	22.8	18.9	18.3	11.5	14.1	14.3	11.4	0.0	13.8
Incr Delay (d2), s/veh	0.2	0.0	4.1	1.0	0.2	0.1	0.0	0.7	1.0	0.1	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	2.6	2.0	1.6	0.8	0.3	1.9	1.9	0.4	0.0	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.6	0.0	34.4	23.8	19.1	18.5	11.5	14.8	15.3	11.5	0.0	14.5
LnGrp LOS	C	A	C	C	B	B	B	B	B	B	A	B
Approach Vol, veh/h		179			345			389			221	
Approach Delay, s/veh		33.5			21.0			14.7			13.8	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2		4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.2	35.0		27.5	8.8	35.4	12.9	14.6
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	9.0	29.0		29.0	9.0	29.0	9.0	29.0
Max Q Clear Time (g_c+I1), s	3.2	7.2		5.7	2.9	6.3	6.9	7.8
Green Ext Time (p_c), s	0.0	1.5		0.8	0.0	0.9	0.1	0.8

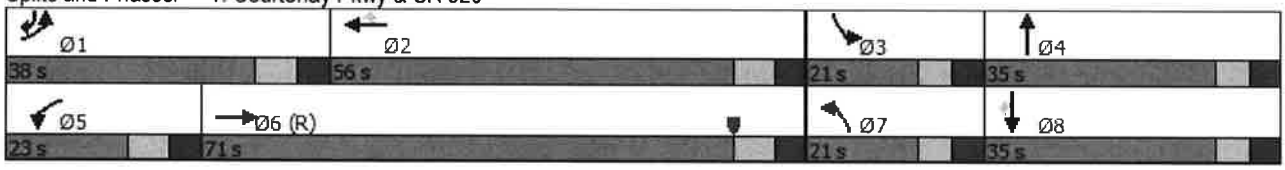
Intersection Summary	
HCM 6th Ctrl Delay	19.4
HCM 6th LOS	B

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	470	805	125	522	144	216	514	233	457	417
Future Volume (vph)	470	805	125	522	144	216	514	233	457	417
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA	pm+ov
Protected Phases	1	6	5	2		7	4	3	8	1
Permitted Phases					2					8
Detector Phase	1	6	5	2	2	7	4	3	8	1
Switch Phase										
Minimum Initial (s)	6.0	15.0	6.0	15.0	15.0	6.0	8.0	6.0	8.0	6.0
Minimum Split (s)	14.7	23.7	14.7	23.7	23.7	13.9	18.6	13.9	18.6	14.7
Total Split (s)	38.0	71.0	23.0	56.0	56.0	21.0	35.0	21.0	35.0	38.0
Total Split (%)	25.3%	47.3%	15.3%	37.3%	37.3%	14.0%	23.3%	14.0%	23.3%	25.3%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.1	4.1	4.1	4.1	4.8
All-Red Time (s)	3.9	3.9	3.9	3.9	3.9	3.8	3.8	3.8	3.8	3.9
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)	8.7	8.7	8.7	8.7	8.7	7.9	7.9	7.9	7.9	8.7
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	Max	Max	None	None	None	None	None

Intersection Summary

Cycle Length: 150
Actuated Cycle Length: 150
Offset: 37 (25%), Referenced to phase 6:EBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 1: Courtenay Pkwy & SR 520



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	470	805	213	125	522	144	216	514	71	233	457	417
Future Volume (veh/h)	470	805	213	125	522	144	216	514	71	233	457	417
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1856	1841	1885	1841	1870	1870	1885	1870	1870	1870	1870
Adj Flow Rate, veh/h	495	847	224	132	549	152	227	541	75	245	481	439
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	3	4	1	4	2	2	1	2	2	2	2
Cap, veh/h	554	1692	445	181	1585	500	272	571	79	289	659	965
Arrive On Green	0.16	0.42	0.42	0.02	0.10	0.10	0.08	0.18	0.18	0.08	0.19	0.19
Sat Flow, veh/h	3456	3994	1050	3483	5025	1585	3456	3161	437	3456	3554	2790
Grp Volume(v), veh/h	495	715	356	132	549	152	227	306	310	245	481	439
Grp Sat Flow(s),veh/h/ln	1728	1689	1667	1742	1675	1585	1728	1791	1807	1728	1777	1395
Q Serve(g_s), s	21.1	23.2	23.5	5.7	15.2	13.3	9.7	25.3	25.5	10.5	19.1	18.3
Cycle Q Clear(g_c), s	21.1	23.2	23.5	5.7	15.2	13.3	9.7	25.3	25.5	10.5	19.1	18.3
Prop In Lane	1.00		0.63	1.00		1.00	1.00		0.24	1.00		1.00
Lane Grp Cap(c), veh/h	554	1431	706	181	1585	500	272	324	326	289	659	965
V/C Ratio(X)	0.89	0.50	0.50	0.73	0.35	0.30	0.83	0.95	0.95	0.85	0.73	0.46
Avail Cap(c_a), veh/h	675	1431	706	332	1585	500	302	324	326	302	659	965
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.96	0.96	0.96	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	61.7	31.6	31.7	72.7	52.8	52.0	68.1	60.7	60.8	67.8	57.5	38.1
Incr Delay (d2), s/veh	12.5	1.3	2.6	5.3	0.6	1.5	16.6	35.8	36.8	19.1	4.1	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.0	9.5	9.7	2.7	6.9	5.9	4.9	14.7	15.0	5.4	8.9	6.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	74.3	32.9	34.2	78.0	53.4	53.5	84.7	96.5	97.6	86.9	61.7	38.4
LnGrp LOS	E	C	C	E	D	D	F	F	F	F	E	D
Approach Vol, veh/h		1566			833			843			1165	
Approach Delay, s/veh		46.3			57.3			93.7			58.2	
Approach LOS		D			E			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	32.8	56.0	20.4	35.0	16.5	72.2	19.7	35.7
Change Period (Y+Rc), s	* 8.7	* 8.7	* 7.9	* 7.9	* 8.7	* 8.7	* 7.9	* 7.9
Max Green Setting (Gmax), s	* 29	* 47	* 13	* 27	* 14	* 62	* 13	* 27
Max Q Clear Time (g_c+I1), s	23.1	17.2	12.5	27.5	7.7	25.5	11.7	21.1
Green Ext Time (p_c), s	1.0	4.1	0.1	0.0	0.2	7.9	0.1	2.5

Intersection Summary	
HCM 6th Ctrl Delay	60.6
HCM 6th LOS	E

Notes

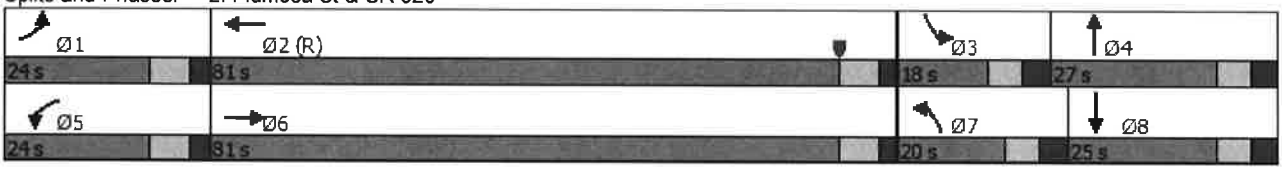
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	86	917	70	812	47	69	22	76
Future Volume (vph)	86	917	70	812	47	69	22	76
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	1	6	5	2	7	4	3	8
Permitted Phases								
Detector Phase	1	6	5	2	7	4	3	8
Switch Phase								
Minimum Initial (s)	6.0	15.0	6.0	15.0	6.0	8.0	6.0	8.0
Minimum Split (s)	13.1	22.1	13.1	22.1	13.4	15.4	13.4	15.4
Total Split (s)	24.0	81.0	24.0	81.0	20.0	27.0	18.0	25.0
Total Split (%)	16.0%	54.0%	16.0%	54.0%	13.3%	18.0%	12.0%	16.7%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.0	4.0	4.0	4.0
All-Red Time (s)	2.3	2.3	2.3	2.3	3.4	3.4	3.4	3.4
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.1	7.1	7.1	7.1	7.4	7.4	7.4	7.4
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	None	C-Max	None	None	None	None

Intersection Summary

Cycle Length: 150
Actuated Cycle Length: 150
Offset: 111 (74%), Referenced to phase 2:WBT, Start of Yellow
Natural Cycle: 65
Control Type: Actuated-Coordinated

Splits and Phases: 2: Plumosa St & SR 520



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	86	917	129	70	812	35	47	69	43	22	76	63
Future Volume (veh/h)	86	917	129	70	812	35	47	69	43	22	76	63
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1841	1841	1900	1856	1900	1826	1856	1870	1826	1841	1870
Adj Flow Rate, veh/h	90	955	134	73	846	36	49	72	45	23	79	66
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	4	4	0	3	0	5	3	2	5	4	2
Cap, veh/h	111	2766	387	93	3037	129	63	118	73	43	91	76
Arrive On Green	0.04	0.42	0.42	0.05	0.61	0.61	0.04	0.11	0.11	0.02	0.10	0.10
Sat Flow, veh/h	1781	4455	623	1810	4983	212	1739	1068	667	1739	927	774
Grp Volume(v), veh/h	90	717	372	73	573	309	49	0	117	23	0	145
Grp Sat Flow(s),veh/h/ln	1781	1675	1729	1810	1689	1817	1739	0	1735	1739	0	1701
Q Serve(g_s), s	7.5	21.9	22.0	6.0	12.0	12.0	4.2	0.0	9.7	2.0	0.0	12.6
Cycle Q Clear(g_c), s	7.5	21.9	22.0	6.0	12.0	12.0	4.2	0.0	9.7	2.0	0.0	12.6
Prop In Lane	1.00		0.36	1.00		0.12	1.00		0.38	1.00		0.46
Lane Grp Cap(c), veh/h	111	2080	1073	93	2058	1108	63	0	191	43	0	168
V/C Ratio(X)	0.81	0.34	0.35	0.79	0.28	0.28	0.78	0.00	0.61	0.54	0.00	0.86
Avail Cap(c_a), veh/h	201	2080	1073	204	2058	1108	146	0	227	123	0	200
HCM Platoon Ratio	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.81	0.81	0.81	0.98	0.98	0.98	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	71.0	23.0	23.0	70.4	13.8	13.8	71.7	0.0	63.7	72.3	0.0	66.6
Incr Delay (d2), s/veh	10.6	0.4	0.7	13.4	0.3	0.6	18.5	0.0	3.5	10.0	0.0	27.1
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	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	9.3	9.7	3.1	4.5	4.9	2.2	0.0	4.4	1.0	0.0	6.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	81.5	23.4	23.8	83.8	14.1	14.4	90.2	0.0	67.2	82.3	0.0	93.7
LnGrp LOS	F	C	C	F	B	B	F	A	E	F	A	F
Approach Vol, veh/h		1179			955			166			168	
Approach Delay, s/veh		27.9			19.5			74.0			92.1	
Approach LOS		C			B			E			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.5	98.5	11.1	23.9	14.8	100.2	12.8	22.2
Change Period (Y+Rc), s	* 7.1	* 7.1	7.4	7.4	* 7.1	* 7.1	7.4	7.4
Max Green Setting (Gmax), s	* 17	* 74	10.6	19.6	* 17	* 74	12.6	17.6
Max Q Clear Time (g_c+I1), s	9.5	14.0	4.0	11.7	8.0	24.0	6.2	14.6
Green Ext Time (p_c), s	0.1	6.2	0.0	0.3	0.1	8.3	0.0	0.2

Intersection Summary	
HCM 6th Ctrl Delay	32.2
HCM 6th LOS	C

Notes

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

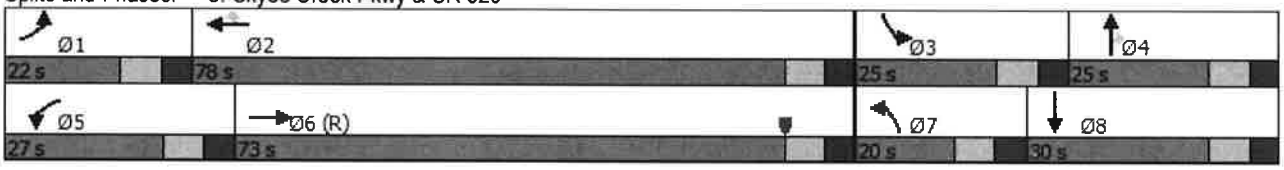
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	132	659	71	710	268	17	67	121	234	76	117
Future Volume (vph)	132	659	71	710	268	17	67	121	234	76	117
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Free
Protected Phases	1	6	5	2		7	4		3	8	
Permitted Phases					2			4			Free
Detector Phase	1	6	5	2	2	7	4	4	3	8	
Switch Phase											
Minimum Initial (s)	6.0	15.0	6.0	15.0	15.0	6.0	8.0	8.0	6.0	8.0	
Minimum Split (s)	14.3	23.3	14.3	23.3	23.3	14.4	16.4	16.4	14.4	16.4	
Total Split (s)	22.0	73.0	27.0	78.0	78.0	20.0	25.0	25.0	25.0	30.0	
Total Split (%)	14.7%	48.7%	18.0%	52.0%	52.0%	13.3%	16.7%	16.7%	16.7%	20.0%	
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	
All-Red Time (s)	3.5	3.5	3.5	3.5	3.5	3.6	3.6	3.6	3.6	3.6	
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)	8.3	8.3	8.3	8.3	8.3	8.4	8.4	8.4	8.4	8.4	
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	C-Max	None	Max	Max	None	None	None	None	None	

Intersection Summary

Cycle Length: 150
Actuated Cycle Length: 150
Offset: 112 (75%), Referenced to phase 6:EBT, Start of Yellow
Natural Cycle: 70
Control Type: Actuated-Coordinated

Splits and Phases: 3: Skyes Creek Pkwy & SR 520



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	132	659	23	71	710	268	17	67	121	234	76	117
Future Volume (veh/h)	132	659	23	71	710	268	17	67	121	234	76	117
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1826	1826	1870	1856	1870	1811	1870	1885	1870	1885	1885
Adj Flow Rate, veh/h	143	716	25	77	772	291	18	73	132	254	83	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	1	5	5	2	3	2	6	2	1	2	1	1
Cap, veh/h	191	2380	83	133	2354	1296	36	341	153	303	306	
Arrive On Green	0.05	0.48	0.48	0.04	0.46	0.46	0.02	0.10	0.10	0.09	0.16	0.00
Sat Flow, veh/h	3483	4946	172	3456	5066	2790	1725	3554	1598	3456	1885	1598
Grp Volume(v), veh/h	143	480	261	77	772	291	18	73	132	254	83	0
Grp Sat Flow(s),veh/h/ln	1742	1662	1795	1728	1689	1395	1725	1777	1598	1728	1885	1598
Q Serve(g_s), s	6.1	13.2	13.2	3.3	14.4	9.4	1.5	2.8	12.2	10.9	5.8	0.0
Cycle Q Clear(g_c), s	6.1	13.2	13.2	3.3	14.4	9.4	1.5	2.8	12.2	10.9	5.8	0.0
Prop In Lane	1.00		0.10	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	191	1599	864	133	2354	1296	36	341	153	303	306	
V/C Ratio(X)	0.75	0.30	0.30	0.58	0.33	0.22	0.49	0.21	0.86	0.84	0.27	
Avail Cap(c_a), veh/h	318	1599	864	431	2354	1296	133	393	177	382	306	
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	1.00
Upstream Filter(I)	0.93	0.93	0.93	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	69.9	23.6	23.6	70.9	25.4	24.0	72.6	62.6	66.8	67.4	55.0	0.0
Incr Delay (d2), s/veh	5.4	0.4	0.8	4.0	0.4	0.4	10.0	0.3	29.8	12.5	0.5	0.0
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	0.0
%ile BackOfQ(50%),veh/ln	2.8	5.2	5.7	1.5	5.8	3.1	0.8	1.3	6.2	5.2	2.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	75.3	24.1	24.5	74.9	25.7	24.4	82.6	62.9	96.6	79.9	55.5	0.0
LnGrp LOS	E	C	C	E	C	C	F	E	F	E	E	
Approach Vol, veh/h		884			1140			223			337	A
Approach Delay, s/veh		32.5			28.7			84.4			73.9	
Approach LOS		C			C			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.5	78.0	21.5	22.8	14.1	80.5	11.6	32.8
Change Period (Y+Rc), s	8.3	8.3	* 8.4	* 8.4	8.3	8.3	* 8.4	* 8.4
Max Green Setting (Gmax), s	13.7	69.7	* 17	* 17	18.7	64.7	* 12	* 22
Max Q Clear Time (g_c+I1), s	8.1	16.4	12.9	14.2	5.3	15.2	3.5	7.8
Green Ext Time (p_c), s	0.2	7.2	0.3	0.2	0.1	4.9	0.0	0.2

Intersection Summary	
HCM 6th Ctrl Delay	40.7
HCM 6th LOS	D

Notes

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

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	1	0	43	0	75	1	646	69	96	630
Future Volume (vph)	1	0	43	0	75	1	646	69	96	630
Turn Type	Perm	NA	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA
Protected Phases		4		8			2		1	6
Permitted Phases	4		8		8	2		2	6	
Detector Phase	4	4	8	8	8	2	2	2	1	6
Switch Phase										
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	12.0	12.0	12.0	5.0	12.0
Minimum Split (s)	14.0	14.0	13.6	13.6	13.6	18.2	18.2	18.2	11.6	18.2
Total Split (s)	14.0	14.0	15.0	15.0	15.0	32.0	32.0	32.0	14.0	46.0
Total Split (%)	18.7%	18.7%	20.0%	20.0%	20.0%	42.7%	42.7%	42.7%	18.7%	61.3%
Yellow Time (s)	4.0	4.0	3.6	3.6	3.6	4.0	4.0	4.0	3.6	4.0
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	2.2	2.2	2.2	3.0	2.2
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		7.0		6.6	6.6	6.2	6.2	6.2	6.6	6.2
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lag	Lag	Lag	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	C-Max	C-Max	C-Max	None	Max

Intersection Summary

Cycle Length: 75
Actuated Cycle Length: 75
Offset: 32 (43%), Referenced to phase 2:NBTL, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 4: Courtenay Pkwy & Fortenberry Rd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	0	0	43	0	75	1	646	69	96	630	0
Future Volume (veh/h)	1	0	0	43	0	75	1	646	69	96	630	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1826	1900	1841	1900	1870	1870	1900	1841	1900
Adj Flow Rate, veh/h	1	0	0	44	0	77	1	666	71	99	649	0
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	0.97
Percent Heavy Veh, %	0	0	0	5	0	4	0	2	2	0	4	0
Cap, veh/h	181	0	0	228	0	134	566	2103	938	566	2581	0
Arrive On Green	0.09	0.00	0.00	0.09	0.00	0.09	0.59	0.59	0.59	0.06	0.74	0.00
Sat Flow, veh/h	987	0	0	1541	0	1560	795	3554	1585	1810	3589	0
Grp Volume(v), veh/h	1	0	0	44	0	77	1	666	71	99	649	0
Grp Sat Flow(s),veh/h/ln	987	0	0	1541	0	1560	795	1777	1585	1810	1749	0
Q Serve(g_s), s	0.1	0.0	0.0	0.0	0.0	3.6	0.0	7.1	1.4	1.4	4.5	0.0
Cycle Q Clear(g_c), s	1.8	0.0	0.0	1.7	0.0	3.6	0.0	7.1	1.4	1.4	4.5	0.0
Prop In Lane	1.00		0.00	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	181	0	0	228	0	134	566	2103	938	566	2581	0
V/C Ratio(X)	0.01	0.00	0.00	0.19	0.00	0.57	0.00	0.32	0.08	0.17	0.25	0.00
Avail Cap(c_a), veh/h	191	0	0	266	0	175	566	2103	938	639	2581	0
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	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	32.9	0.0	0.0	32.1	0.0	33.0	6.3	7.7	6.5	4.8	3.2	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.4	0.0	3.8	0.0	0.4	0.2	0.1	0.2	0.0
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	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.8	0.0	1.4	0.0	2.3	0.4	0.4	1.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.9	0.0	0.0	32.5	0.0	36.8	6.3	8.1	6.7	4.9	3.4	0.0
LnGrp LOS	C	A	A	C	A	D	A	A	A	A	A	A
Approach Vol, veh/h		1			121			738			748	
Approach Delay, s/veh		32.9			35.2			7.9			3.6	
Approach LOS		C			D			A			A	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	11.0	50.6		13.4		61.6		13.4				
Change Period (Y+Rc), s	6.6	* 6.2		7.0		* 6.2		* 7				
Max Green Setting (Gmax), s	7.4	* 26		7.0		* 40		* 8.4				
Max Q Clear Time (g_c+I1), s	3.4	9.1		3.8		6.5		5.6				
Green Ext Time (p_c), s	0.1	4.3		0.0		4.8		0.1				

Intersection Summary	
HCM 6th Ctrl Delay	8.0
HCM 6th LOS	A

Notes

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

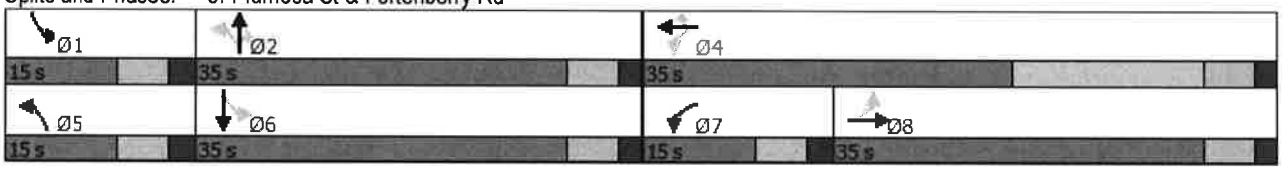
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	13	57	88	38	22	15	133	130	23	179
Future Volume (vph)	13	57	88	38	22	15	133	130	23	179
Turn Type	Perm	NA	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA
Protected Phases		8	7	4		5	2		1	6
Permitted Phases	8		4		4	2		2	6	
Detector Phase	8	8	7	4	4	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	7.0	7.0	5.0	7.0	7.0	5.0	14.0	14.0	5.0	14.0
Minimum Split (s)	13.0	13.0	11.0	13.0	13.0	11.0	20.0	20.0	11.0	20.0
Total Split (s)	35.0	35.0	15.0	35.0	35.0	15.0	35.0	35.0	15.0	35.0
Total Split (%)	35.0%	35.0%	15.0%	35.0%	35.0%	15.0%	35.0%	35.0%	15.0%	35.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lag	Lag	Lead			Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes			Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 67.1
Natural Cycle: 55
Control Type: Actuated-Uncoordinated

Splits and Phases: 5: Plumosa St & Fortenberry Rd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	57	46	88	38	22	15	133	130	23	179	25
Future Volume (veh/h)	13	57	46	88	38	22	15	133	130	23	179	25
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1841	1900	1870	1900	1826	1900	1826	1900	1900	1870	1767
Adj Flow Rate, veh/h	14	63	51	97	42	24	16	146	143	25	197	27
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	4	0	2	0	5	0	5	0	0	2	9
Cap, veh/h	247	96	78	287	505	411	575	796	702	587	716	98
Arrive On Green	0.10	0.10	0.10	0.07	0.27	0.27	0.02	0.44	0.44	0.03	0.44	0.44
Sat Flow, veh/h	1357	941	762	1781	1900	1547	1810	1826	1610	1810	1610	221
Grp Volume(v), veh/h	14	0	114	97	42	24	16	146	143	25	0	224
Grp Sat Flow(s),veh/h/ln	1357	0	1704	1781	1900	1547	1810	1826	1610	1810	0	1831
Q Serve(g_s), s	0.6	0.0	4.3	3.0	1.1	0.8	0.3	3.3	3.7	0.5	0.0	5.2
Cycle Q Clear(g_c), s	0.6	0.0	4.3	3.0	1.1	0.8	0.3	3.3	3.7	0.5	0.0	5.2
Prop In Lane	1.00		0.45	1.00		1.00	1.00		1.00	1.00		0.12
Lane Grp Cap(c), veh/h	247	0	174	287	505	411	575	796	702	587	0	814
V/C Ratio(X)	0.06	0.00	0.65	0.34	0.08	0.06	0.03	0.18	0.20	0.04	0.00	0.28
Avail Cap(c_a), veh/h	700	0	743	398	828	675	785	796	702	782	0	814
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	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	27.1	0.0	28.7	22.5	18.3	18.2	10.1	11.5	11.6	9.8	0.0	11.7
Incr Delay (d2), s/veh	0.1	0.0	4.1	0.7	0.1	0.1	0.0	0.5	0.7	0.0	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	1.8	1.2	0.5	0.3	0.1	1.3	1.3	0.2	0.0	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.2	0.0	32.8	23.2	18.4	18.3	10.1	12.0	12.3	9.8	0.0	12.5
LnGrp LOS	C	A	C	C	B	B	B	B	B	A	A	B
Approach Vol, veh/h		128			163			305			249	
Approach Delay, s/veh		32.2			21.3			12.0			12.3	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2		4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.8	35.0		23.7	7.3	35.6	10.9	12.8
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	9.0	29.0		29.0	9.0	29.0	9.0	29.0
Max Q Clear Time (g_c+I1), s	2.5	5.7		3.1	2.3	7.2	5.0	6.3
Green Ext Time (p_c), s	0.0	1.2		0.2	0.0	1.2	0.1	0.6

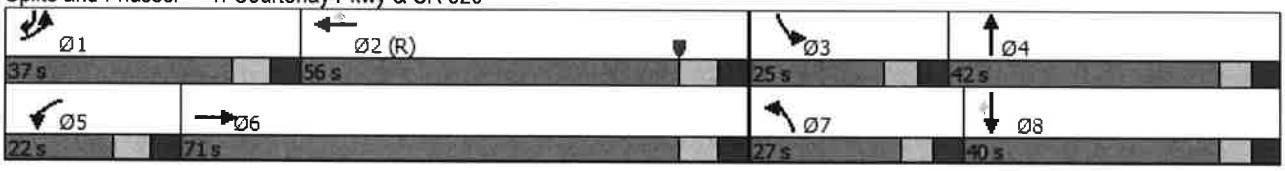
Intersection Summary	
HCM 6th Ctrl Delay	16.9
HCM 6th LOS	B

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	464	889	140	949	288	364	578	317	548	504
Future Volume (vph)	464	889	140	949	288	364	578	317	548	504
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA	pm+ov
Protected Phases	1	6	5	2		7	4	3	8	1
Permitted Phases					2					8
Detector Phase	1	6	5	2	2	7	4	3	8	1
Switch Phase										
Minimum Initial (s)	6.0	15.0	6.0	15.0	15.0	6.0	8.0	6.0	8.0	6.0
Minimum Split (s)	14.7	23.7	14.7	23.7	23.7	13.9	15.9	13.9	15.9	14.7
Total Split (s)	37.0	71.0	22.0	56.0	56.0	27.0	42.0	25.0	40.0	37.0
Total Split (%)	23.1%	44.4%	13.8%	35.0%	35.0%	16.9%	26.3%	15.6%	25.0%	23.1%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.1	4.1	4.1	4.1	4.8
All-Red Time (s)	3.9	3.9	3.9	3.9	3.9	3.8	3.8	3.8	3.8	3.9
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)	8.7	8.7	8.7	8.7	8.7	7.9	7.9	7.9	7.9	8.7
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	None	C-Max	C-Max	None	None	None	None	None

Intersection Summary

Cycle Length: 160
Actuated Cycle Length: 160
Offset: 20 (13%), Referenced to phase 2:WBT, Start of Yellow
Natural Cycle: 100
Control Type: Actuated-Coordinated

Splits and Phases: 1: Courtenay Pkwy & SR 520



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	464	889	165	140	949	288	364	578	72	317	548	504
Future Volume (veh/h)	464	889	165	140	949	288	364	578	72	317	548	504
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1885	1885	1885	1870	1885	1870	1870	1900	1900	1900	1885
Adj Flow Rate, veh/h	494	946	176	149	1010	306	387	615	77	337	583	536
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	1	1	1	2	1	2	2	0	0	0	1
Cap, veh/h	546	1842	342	195	1648	516	413	659	82	375	704	985
Arrive On Green	0.16	0.42	0.42	0.02	0.11	0.11	0.12	0.21	0.21	0.11	0.19	0.19
Sat Flow, veh/h	3510	4362	809	3483	5106	1598	3456	3178	397	3510	3610	2812
Grp Volume(v), veh/h	494	743	379	149	1010	306	387	343	349	337	583	536
Grp Sat Flow(s),veh/h/ln	1755	1716	1740	1742	1702	1598	1728	1777	1799	1755	1805	1406
Q Serve(g_s), s	22.1	25.6	25.7	6.8	30.3	29.2	17.8	30.4	30.5	15.2	24.8	24.5
Cycle Q Clear(g_c), s	22.1	25.6	25.7	6.8	30.3	29.2	17.8	30.4	30.5	15.2	24.8	24.5
Prop In Lane	1.00		0.46	1.00		1.00	1.00		0.22	1.00		1.00
Lane Grp Cap(c), veh/h	546	1449	735	195	1648	516	413	369	373	375	704	985
V/C Ratio(X)	0.91	0.51	0.52	0.76	0.61	0.59	0.94	0.93	0.93	0.90	0.83	0.54
Avail Cap(c_a), veh/h	621	1449	735	290	1648	516	413	379	383	375	724	1001
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.80	0.80	0.80	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	66.4	34.1	34.1	77.5	61.9	61.5	69.9	62.3	62.3	70.6	61.8	41.7
Incr Delay (d2), s/veh	15.6	1.3	2.6	5.4	1.4	4.0	29.2	29.2	29.5	23.5	7.8	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.9	10.8	11.2	3.3	14.1	13.2	9.5	16.7	17.0	8.0	12.1	8.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	82.1	35.4	36.7	82.9	63.3	65.5	99.0	91.5	91.9	94.1	69.6	42.3
LnGrp LOS	F	D	D	F	E	E	F	F	F	F	E	D
Approach Vol, veh/h		1616			1465			1079			1456	
Approach Delay, s/veh		50.0			65.7			94.3			65.2	
Approach LOS		D			E			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	33.6	60.3	25.0	41.1	17.7	76.3	27.0	39.1
Change Period (Y+Rc), s	* 8.7	* 8.7	* 7.9	* 7.9	* 8.7	* 8.7	* 7.9	* 7.9
Max Green Setting (Gmax), s	* 28	* 47	* 17	* 34	* 13	* 62	* 19	* 32
Max Q Clear Time (g_c+I1), s	24.1	32.3	17.2	32.5	8.8	27.7	19.8	26.8
Green Ext Time (p_c), s	0.7	6.7	0.0	0.7	0.2	8.2	0.0	2.8

Intersection Summary	
HCM 6th Ctrl Delay	66.6
HCM 6th LOS	E

Notes

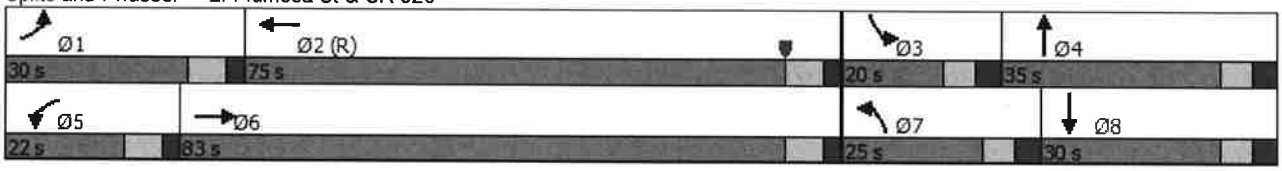
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	124	1232	90	1296	101	99	60	75
Future Volume (vph)	124	1232	90	1296	101	99	60	75
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	1	6	5	2	7	4	3	8
Permitted Phases								
Detector Phase	1	6	5	2	7	4	3	8
Switch Phase								
Minimum Initial (s)	6.0	15.0	6.0	15.0	6.0	8.0	6.0	8.0
Minimum Split (s)	13.2	22.2	13.2	22.2	13.4	15.4	13.4	15.4
Total Split (s)	30.0	83.0	22.0	75.0	25.0	35.0	20.0	30.0
Total Split (%)	18.8%	51.9%	13.8%	46.9%	15.6%	21.9%	12.5%	18.8%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.0	4.0	4.0	4.0
All-Red Time (s)	2.3	2.3	2.3	2.3	3.4	3.4	3.4	3.4
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.1	7.1	7.1	7.1	7.4	7.4	7.4	7.4
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	None	C-Min	None	None	None	None

Intersection Summary

Cycle Length: 160
Actuated Cycle Length: 160
Offset: 102 (64%), Referenced to phase 2:WBT, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 2: Plumosa St & SR 520



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	124	1232	98	90	1296	102	101	99	64	60	75	110
Future Volume (veh/h)	124	1232	98	90	1296	102	101	99	64	60	75	110
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1811	1885	1870	1900	1870	1856	1870	1900	1870	1841	1885	1885
Adj Flow Rate, veh/h	128	1270	101	93	1336	105	104	102	66	62	77	113
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	0.97
Percent Heavy Veh, %	6	1	2	0	2	3	2	0	2	4	1	1
Cap, veh/h	149	2730	217	113	2596	204	125	161	104	78	86	126
Arrive On Green	0.09	0.56	0.56	0.06	0.54	0.54	0.07	0.15	0.15	0.04	0.12	0.12
Sat Flow, veh/h	1725	4860	386	1810	4827	379	1781	1077	697	1753	690	1013
Grp Volume(v), veh/h	128	897	474	93	942	499	104	0	168	62	0	190
Grp Sat Flow(s),veh/h/ln	1725	1716	1816	1810	1702	1802	1781	0	1775	1753	0	1703
Q Serve(g_s), s	11.7	24.8	24.8	8.1	28.3	28.3	9.2	0.0	14.2	5.6	0.0	17.6
Cycle Q Clear(g_c), s	11.7	24.8	24.8	8.1	28.3	28.3	9.2	0.0	14.2	5.6	0.0	17.6
Prop In Lane	1.00		0.21	1.00		0.21	1.00		0.39	1.00		0.59
Lane Grp Cap(c), veh/h	149	1927	1020	113	1831	969	125	0	266	78	0	212
V/C Ratio(X)	0.86	0.47	0.47	0.82	0.51	0.51	0.83	0.00	0.63	0.79	0.00	0.90
Avail Cap(c_a), veh/h	247	1927	1020	169	1831	969	196	0	306	138	0	241
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	1.00
Upstream Filter(I)	0.73	0.73	0.73	0.95	0.95	0.95	0.99	0.00	0.99	1.00	0.00	1.00
Uniform Delay (d), s/veh	72.1	20.8	20.8	74.1	23.6	23.6	73.5	0.0	63.9	75.7	0.0	69.1
Incr Delay (d2), s/veh	11.0	0.6	1.1	16.9	1.0	1.9	15.5	0.0	3.3	16.0	0.0	30.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.6	9.8	10.5	4.3	11.3	12.2	4.8	0.0	6.7	2.9	0.0	9.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	83.1	21.4	21.9	91.0	24.6	25.5	89.0	0.0	67.2	91.7	0.0	99.3
LnGrp LOS	F	C	C	F	C	C	F	A	E	F	A	F
Approach Vol, veh/h		1499			1534			272			252	
Approach Delay, s/veh		26.8			28.9			75.5			97.4	
Approach LOS		C			C			E			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.0	93.1	14.6	31.3	17.1	97.0	18.6	27.3
Change Period (Y+Rc), s	* 7.1	* 7.1	7.4	7.4	* 7.1	* 7.1	7.4	7.4
Max Green Setting (Gmax), s	* 23	* 68	12.6	27.6	* 15	* 76	17.6	22.6
Max Q Clear Time (g_c+I1), s	13.7	30.3	7.6	16.2	10.1	26.8	11.2	19.6
Green Ext Time (p_c), s	0.2	11.9	0.0	0.6	0.1	11.6	0.1	0.3

Intersection Summary	
HCM 6th Ctrl Delay	36.5
HCM 6th LOS	D

Notes

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

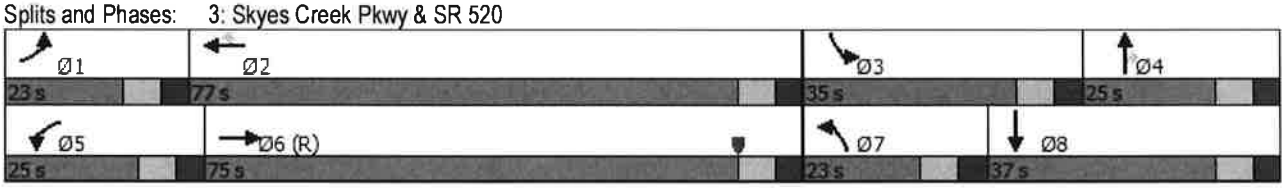
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	214	893	145	895	302	64	121	187	329	133	162
Future Volume (vph)	214	893	145	895	302	64	121	187	329	133	162
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Free
Protected Phases	1	6	5	2		7	4		3	8	
Permitted Phases					2			4			Free
Detector Phase	1	6	5	2	2	7	4	4	3	8	
Switch Phase											
Minimum Initial (s)	6.0	15.0	6.0	15.0	15.0	6.0	8.0	8.0	6.0	8.0	
Minimum Split (s)	14.3	23.3	14.3	23.3	23.3	14.4	16.4	16.4	14.4	16.4	
Total Split (s)	23.0	75.0	25.0	77.0	77.0	23.0	25.0	25.0	35.0	37.0	
Total Split (%)	14.4%	46.9%	15.6%	48.1%	48.1%	14.4%	15.6%	15.6%	21.9%	23.1%	
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	
All-Red Time (s)	3.5	3.5	3.5	3.5	3.5	3.6	3.6	3.6	3.6	3.6	
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)	8.3	8.3	8.3	8.3	8.3	8.4	8.4	8.4	8.4	8.4	
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	C-Max	None	Max	Max	None	None	None	None	None	

Intersection Summary

Cycle Length: 160
Actuated Cycle Length: 160
Offset: 105 (66%), Referenced to phase 6:EBT, Start of Yellow
Natural Cycle: 75
Control Type: Actuated-Coordinated

Splits and Phases: 3: Skyes Creek Pkwy & SR 520



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	214	893	30	145	895	302	64	121	187	329	133	162
Future Volume (veh/h)	214	893	30	145	895	302	64	121	187	329	133	162
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1900	1870	1856	1856	1900	1870	1870	1885	1856	1885
Adj Flow Rate, veh/h	223	930	31	151	932	315	67	126	195	343	139	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	1	1	0	2	3	3	0	2	2	1	3	1
Cap, veh/h	267	2297	76	197	2175	1188	85	369	164	398	317	
Arrive On Green	0.08	0.45	0.45	0.06	0.43	0.43	0.05	0.10	0.10	0.11	0.17	0.00
Sat Flow, veh/h	3483	5115	170	3456	5066	2768	1810	3554	1585	3483	1856	1598
Grp Volume(v), veh/h	223	623	338	151	932	315	67	126	195	343	139	0
Grp Sat Flow(s),veh/h/ln	1742	1716	1855	1728	1689	1384	1810	1777	1585	1742	1856	1598
Q Serve(g_s), s	10.1	19.6	19.6	6.9	20.6	11.7	5.9	5.3	16.6	15.5	10.7	0.0
Cycle Q Clear(g_c), s	10.1	19.6	19.6	6.9	20.6	11.7	5.9	5.3	16.6	15.5	10.7	0.0
Prop In Lane	1.00		0.09	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	267	1541	833	197	2175	1188	85	369	164	398	317	
V/C Ratio(X)	0.83	0.40	0.41	0.77	0.43	0.27	0.79	0.34	1.19	0.86	0.44	
Avail Cap(c_a), veh/h	320	1541	833	361	2175	1188	165	369	164	579	332	
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	1.00
Upstream Filter(I)	0.85	0.85	0.85	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	72.9	29.7	29.7	74.4	31.9	29.4	75.5	66.6	71.7	69.6	59.4	0.0
Incr Delay (d2), s/veh	12.9	0.7	1.2	6.1	0.6	0.5	14.7	0.5	128.9	8.9	1.0	0.0
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	0.0
%ile BackOfQ(50%),veh/ln	4.9	8.1	8.9	3.2	8.4	4.0	3.1	2.4	12.5	7.3	5.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	85.7	30.3	30.9	80.5	32.5	29.9	90.2	67.2	200.6	78.6	60.4	0.0
LnGrp LOS	F	C	C	F	C	C	F	E	F	E	E	
Approach Vol, veh/h		1184			1398			388			482	A
Approach Delay, s/veh		40.9			37.1			138.2			73.3	
Approach LOS		D			D			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.6	77.0	26.7	25.0	17.4	80.2	15.9	35.8
Change Period (Y+Rc), s	8.3	8.3	* 8.4	* 8.4	8.3	8.3	* 8.4	* 8.4
Max Green Setting (Gmax), s	14.7	68.7	* 27	* 17	16.7	66.7	* 15	* 29
Max Q Clear Time (g_c+I1), s	12.1	22.6	17.5	18.6	8.9	21.6	7.9	12.7
Green Ext Time (p_c), s	0.2	9.1	0.8	0.0	0.2	6.8	0.1	0.5

Intersection Summary	
HCM 6th Ctrl Delay	54.9
HCM 6th LOS	D

Notes

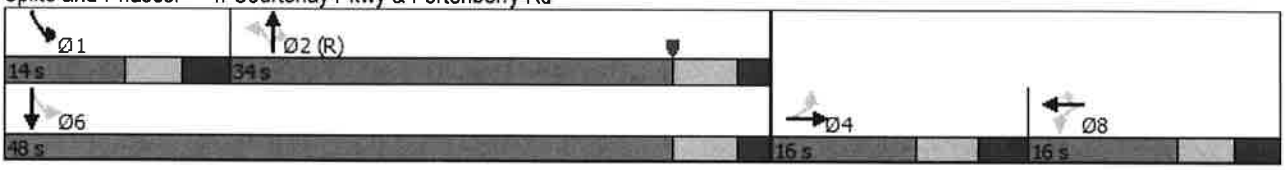
User approved pedestrian interval to be less than phase max green.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	1	0	94	0	183	3	738	65	67	854
Future Volume (vph)	1	0	94	0	183	3	738	65	67	854
Turn Type	Perm	NA	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA
Protected Phases		4		8			2		1	6
Permitted Phases	4		8		8	2		2	6	
Detector Phase	4	4	8	8	8	2	2	2	1	6
Switch Phase										
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	12.0	12.0	12.0	5.0	12.0
Minimum Split (s)	14.0	14.0	13.6	13.6	13.6	18.2	18.2	18.2	11.6	18.2
Total Split (s)	16.0	16.0	16.0	16.0	16.0	34.0	34.0	34.0	14.0	48.0
Total Split (%)	20.0%	20.0%	20.0%	20.0%	20.0%	42.5%	42.5%	42.5%	17.5%	60.0%
Yellow Time (s)	4.0	4.0	3.6	3.6	3.6	4.0	4.0	4.0	3.6	4.0
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	2.2	2.2	2.2	3.0	2.2
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		7.0		6.6	6.6	6.2	6.2	6.2	6.6	6.2
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lag	Lag	Lag	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	C-Max	C-Max	C-Max	None	Max

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 18 (23%), Referenced to phase 2:NBTL, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 4: Courtenay Pkwy & Fortenberry Rd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	0	2	94	0	183	3	738	65	67	854	1
Future Volume (veh/h)	1	0	2	94	0	183	3	738	65	67	854	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1885	1900	1870	1826	1900	1885	1900
Adj Flow Rate, veh/h	1	0	2	101	0	197	3	794	70	72	918	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	1	0	2	5	0	1	0
Cap, veh/h	82	24	92	252	0	188	451	2079	905	483	2634	3
Arrive On Green	0.12	0.00	0.12	0.12	0.00	0.12	0.59	0.59	0.59	0.05	0.72	0.72
Sat Flow, veh/h	188	205	785	1375	0	1598	618	3554	1547	1810	3671	4
Grp Volume(v), veh/h	3	0	0	101	0	197	3	794	70	72	448	471
Grp Sat Flow(s),veh/h/ln	1177	0	0	1375	0	1598	618	1777	1547	1810	1791	1884
Q Serve(g_s), s	0.0	0.0	0.0	0.1	0.0	9.4	0.2	9.5	1.6	1.1	7.5	7.5
Cycle Q Clear(g_c), s	5.8	0.0	0.0	5.8	0.0	9.4	0.2	9.5	1.6	1.1	7.5	7.5
Prop In Lane	0.33		0.67	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	198	0	0	252	0	188	451	2079	905	483	1285	1352
V/C Ratio(X)	0.02	0.00	0.00	0.40	0.00	1.05	0.01	0.38	0.08	0.15	0.35	0.35
Avail Cap(c_a), veh/h	198	0	0	252	0	188	451	2079	905	560	1285	1352
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	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.2	0.0	0.0	33.7	0.0	35.3	6.9	8.9	7.2	5.8	4.3	4.3
Incr Delay (d2), s/veh	0.0	0.0	0.0	1.0	0.0	79.3	0.0	0.5	0.2	0.1	0.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.0	1.9	0.0	7.7	0.0	3.3	0.5	0.3	2.2	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.3	0.0	0.0	34.7	0.0	114.6	6.9	9.4	7.4	5.9	5.0	5.0
LnGrp LOS	C	A	A	C	A	F	A	A	A	A	A	A
Approach Vol, veh/h		3			298			867			991	
Approach Delay, s/veh		31.3			87.6			9.2			5.1	
Approach LOS		C			F			A			A	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	10.6	53.0		16.4		63.6		16.4				
Change Period (Y+Rc), s	6.6	* 6.2		7.0		* 6.2		* 7				
Max Green Setting (Gmax), s	7.4	* 28		9.0		* 42		* 9.4				
Max Q Clear Time (g_c+I1), s	3.1	11.5		7.8		9.5		11.4				
Green Ext Time (p_c), s	0.0	5.1		0.0		6.5		0.0				

Intersection Summary		
HCM 6th Ctrl Delay		18.2
HCM 6th LOS		B

Notes

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

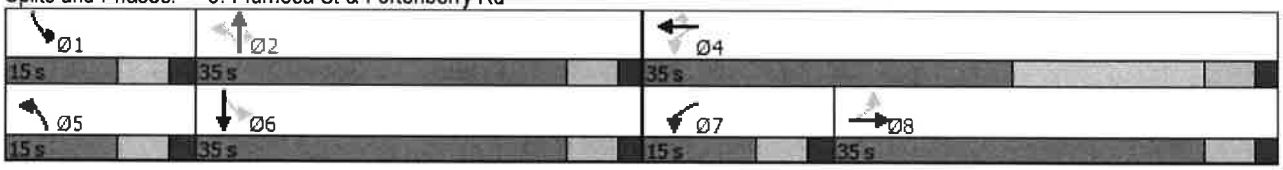
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	27	107	140	126	63	39	169	162	49	133
Future Volume (vph)	27	107	140	126	63	39	169	162	49	133
Turn Type	Perm	NA	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA
Protected Phases		8	7	4		5	2		1	6
Permitted Phases	8		4		4	2		2	6	
Detector Phase	8	8	7	4	4	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	7.0	7.0	5.0	7.0	7.0	5.0	14.0	14.0	5.0	14.0
Minimum Split (s)	13.0	13.0	11.0	13.0	13.0	11.0	20.0	20.0	11.0	20.0
Total Split (s)	35.0	35.0	15.0	35.0	35.0	15.0	35.0	35.0	15.0	35.0
Total Split (%)	35.0%	35.0%	15.0%	35.0%	35.0%	15.0%	35.0%	35.0%	15.0%	35.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lag	Lag	Lead			Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes			Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 75.5
Natural Cycle: 55
Control Type: Actuated-Uncoordinated

Splits and Phases: 5: Plumosa St & Fortenberry Rd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	107	37	140	126	63	39	169	162	49	133	30
Future Volume (veh/h)	27	107	37	140	126	63	39	169	162	49	133	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1885	1900	1870	1900	1870	1900	1885	1856	1841	1885	1900
Adj Flow Rate, veh/h	30	119	41	156	140	70	43	188	180	54	148	33
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	1	0	2	0	2	0	1	3	4	1	0
Cap, veh/h	248	168	58	326	585	488	586	752	627	511	604	135
Arrive On Green	0.12	0.12	0.12	0.10	0.31	0.31	0.04	0.40	0.40	0.05	0.40	0.40
Sat Flow, veh/h	1190	1340	462	1781	1900	1585	1810	1885	1572	1753	1492	333
Grp Volume(v), veh/h	30	0	160	156	140	70	43	188	180	54	0	181
Grp Sat Flow(s),veh/h/ln	1190	0	1802	1781	1900	1585	1810	1885	1572	1753	0	1825
Q Serve(g_s), s	1.6	0.0	6.2	5.2	4.0	2.3	1.0	4.8	5.6	1.3	0.0	4.8
Cycle Q Clear(g_c), s	1.6	0.0	6.2	5.2	4.0	2.3	1.0	4.8	5.6	1.3	0.0	4.8
Prop In Lane	1.00		0.26	1.00		1.00	1.00		1.00	1.00		0.18
Lane Grp Cap(c), veh/h	248	0	225	326	585	488	586	752	627	511	0	739
V/C Ratio(X)	0.12	0.00	0.71	0.48	0.24	0.14	0.07	0.25	0.29	0.11	0.00	0.24
Avail Cap(c_a), veh/h	574	0	719	368	758	632	738	752	627	648	0	739
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	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	28.5	0.0	30.5	22.8	18.8	18.2	11.9	14.6	14.8	11.7	0.0	14.3
Incr Delay (d2), s/veh	0.2	0.0	4.1	1.1	0.2	0.1	0.1	0.8	1.1	0.1	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	2.8	2.1	1.7	0.8	0.4	2.1	2.0	0.5	0.0	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.8	0.0	34.6	23.9	19.0	18.4	11.9	15.4	16.0	11.8	0.0	15.1
LnGrp LOS	C	A	C	C	B	B	B	B	B	B	A	B
Approach Vol, veh/h		190			366			411			235	
Approach Delay, s/veh		33.7			21.0			15.3			14.3	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2		4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.3	35.0		28.4	8.9	35.4	13.3	15.1
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	9.0	29.0		29.0	9.0	29.0	9.0	29.0
Max Q Clear Time (g_c+I1), s	3.3	7.6		6.0	3.0	6.8	7.2	8.2
Green Ext Time (p_c), s	0.0	1.6		0.9	0.0	0.9	0.1	0.9

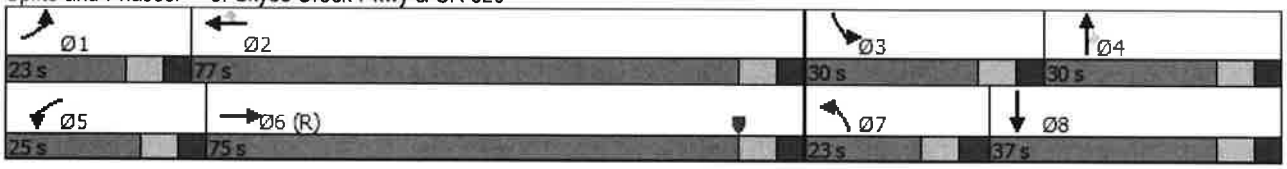
Intersection Summary	
HCM 6th Ctrl Delay	19.7
HCM 6th LOS	B

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	214	893	145	895	302	64	121	187	329	133	162
Future Volume (vph)	214	893	145	895	302	64	121	187	329	133	162
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Free
Protected Phases	1	6	5	2		7	4		3	8	
Permitted Phases					2			4			Free
Detector Phase	1	6	5	2	2	7	4	4	3	8	
Switch Phase											
Minimum Initial (s)	6.0	15.0	6.0	15.0	15.0	6.0	8.0	8.0	6.0	8.0	
Minimum Split (s)	14.3	23.3	14.3	23.3	23.3	14.4	16.4	16.4	14.4	16.4	
Total Split (s)	23.0	75.0	25.0	77.0	77.0	23.0	30.0	30.0	30.0	37.0	
Total Split (%)	14.4%	46.9%	15.6%	48.1%	48.1%	14.4%	18.8%	18.8%	18.8%	23.1%	
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	
All-Red Time (s)	3.5	3.5	3.5	3.5	3.5	3.6	3.6	3.6	3.6	3.6	
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)	8.3	8.3	8.3	8.3	8.3	8.4	8.4	8.4	8.4	8.4	
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	C-Max	None	Max	Max	None	None	None	None	None	

Intersection Summary

Cycle Length: 160
Actuated Cycle Length: 160
Offset: 105 (66%), Referenced to phase 6:EBT, Start of Yellow
Natural Cycle: 75
Control Type: Actuated-Coordinated

Splits and Phases: 3: Skyes Creek Pkwy & SR 520



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	214	893	30	145	895	302	64	121	187	329	133	162
Future Volume (veh/h)	214	893	30	145	895	302	64	121	187	329	133	162
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1900	1870	1856	1856	1900	1870	1870	1885	1856	1885
Adj Flow Rate, veh/h	223	930	31	151	932	315	67	126	195	343	139	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	1	1	0	2	3	3	0	2	2	1	3	1
Cap, veh/h	264	2293	76	197	2175	1188	85	477	213	391	370	
Arrive On Green	0.15	0.90	0.90	0.06	0.43	0.43	0.05	0.13	0.13	0.11	0.20	0.00
Sat Flow, veh/h	3483	5115	170	3456	5066	2768	1810	3554	1585	3483	1856	1598
Grp Volume(v), veh/h	223	623	338	151	932	315	67	126	195	343	139	0
Grp Sat Flow(s),veh/h/ln	1742	1716	1855	1728	1689	1384	1810	1777	1585	1742	1856	1598
Q Serve(g_s), s	10.0	4.7	4.7	6.9	20.6	11.7	5.9	5.1	19.4	15.5	10.4	0.0
Cycle Q Clear(g_c), s	10.0	4.7	4.7	6.9	20.6	11.7	5.9	5.1	19.4	15.5	10.4	0.0
Prop In Lane	1.00		0.09	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	264	1538	831	197	2175	1188	85	477	213	391	370	
V/C Ratio(X)	0.84	0.41	0.41	0.77	0.43	0.27	0.79	0.26	0.92	0.88	0.38	
Avail Cap(c_a), veh/h	320	1538	831	361	2175	1188	165	480	214	470	370	
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.85	0.85	0.85	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	66.9	4.8	4.8	74.4	31.9	29.4	75.5	62.2	68.4	69.9	55.4	0.0
Incr Delay (d2), s/veh	13.7	0.7	1.3	6.1	0.6	0.5	14.7	0.3	39.3	14.8	0.6	0.0
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	0.0
%ile BackOfQ(50%),veh/ln	4.6	1.4	1.7	3.2	8.4	4.0	3.1	2.3	10.1	7.6	4.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	80.6	5.5	6.1	80.5	32.5	29.9	90.2	62.5	107.7	84.8	56.0	0.0
LnGrp LOS	F	A	A	F	C	C	F	E	F	F	E	
Approach Vol, veh/h		1184			1398			388			482	A
Approach Delay, s/veh		19.8			37.1			90.0			76.5	
Approach LOS		B			D			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.4	77.0	26.4	29.9	17.4	80.0	15.9	40.3
Change Period (Y+Rc), s	8.3	8.3	* 8.4	* 8.4	8.3	8.3	* 8.4	* 8.4
Max Green Setting (Gmax), s	14.7	68.7	* 22	* 22	16.7	66.7	* 15	* 29
Max Q Clear Time (g_c+I1), s	12.0	22.6	17.5	21.4	8.9	6.7	7.9	12.4
Green Ext Time (p_c), s	0.2	9.1	0.5	0.0	0.2	6.9	0.1	0.5

Intersection Summary	
HCM 6th Ctrl Delay	42.6
HCM 6th LOS	D

Notes

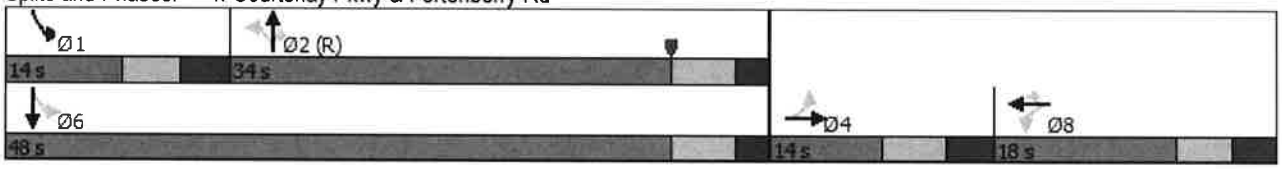
User approved pedestrian interval to be less than phase max green.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	1	0	94	0	183	3	738	65	67	854
Future Volume (vph)	1	0	94	0	183	3	738	65	67	854
Turn Type	Perm	NA	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA
Protected Phases		4		8			2		1	6
Permitted Phases	4		8		8	2		2	6	
Detector Phase	4	4	8	8	8	2	2	2	1	6
Switch Phase										
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	12.0	12.0	12.0	5.0	12.0
Minimum Split (s)	14.0	14.0	13.6	13.6	13.6	18.2	18.2	18.2	11.6	18.2
Total Split (s)	14.0	14.0	18.0	18.0	18.0	34.0	34.0	34.0	14.0	48.0
Total Split (%)	17.5%	17.5%	22.5%	22.5%	22.5%	42.5%	42.5%	42.5%	17.5%	60.0%
Yellow Time (s)	4.0	4.0	3.6	3.6	3.6	4.0	4.0	4.0	3.6	4.0
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	2.2	2.2	2.2	3.0	2.2
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		7.0		6.6	6.6	6.2	6.2	6.2	6.6	6.2
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lag	Lag	Lag	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	C-Max	C-Max	C-Max	None	Max

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 18 (23%), Referenced to phase 2:NBTL, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 4: Courtenay Pkwy & Fortenberry Rd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	0	2	94	0	183	3	738	65	67	854	1
Future Volume (veh/h)	1	0	2	94	0	183	3	738	65	67	854	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1885	1900	1870	1826	1900	1885	1900
Adj Flow Rate, veh/h	1	0	2	101	0	197	3	794	70	72	918	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	1	0	2	5	0	1	0
Cap, veh/h	97	25	125	293	0	228	436	1990	867	462	2542	3
Arrive On Green	0.14	0.00	0.14	0.14	0.00	0.14	0.56	0.56	0.56	0.05	0.69	0.69
Sat Flow, veh/h	258	179	874	1424	0	1598	618	3554	1547	1810	3671	4
Grp Volume(v), veh/h	3	0	0	101	0	197	3	794	70	72	448	471
Grp Sat Flow(s),veh/h/ln	1311	0	0	1424	0	1598	618	1777	1547	1810	1791	1884
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	9.6	0.2	10.1	1.7	1.2	8.2	8.2
Cycle Q Clear(g_c), s	5.3	0.0	0.0	5.3	0.0	9.6	0.2	10.1	1.7	1.2	8.2	8.2
Prop In Lane	0.33		0.67	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	247	0	0	293	0	228	436	1990	867	462	1240	1305
V/C Ratio(X)	0.01	0.00	0.00	0.34	0.00	0.87	0.01	0.40	0.08	0.16	0.36	0.36
Avail Cap(c_a), veh/h	247	0	0	293	0	228	436	1990	867	539	1240	1305
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	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.5	0.0	0.0	31.7	0.0	33.5	7.8	10.0	8.1	6.6	5.0	5.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.7	0.0	27.6	0.0	0.6	0.2	0.2	0.8	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	1.8	0.0	5.4	0.0	3.6	0.5	0.4	2.5	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.5	0.0	0.0	32.4	0.0	61.1	7.8	10.6	8.3	6.7	5.9	5.8
LnGrp LOS	C	A	A	C	A	E	A	B	A	A	A	A
Approach Vol, veh/h		3			298			867			991	
Approach Delay, s/veh		29.5			51.4			10.4			5.9	
Approach LOS		C			D			B			A	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	10.6	51.0		18.4		61.6		18.4				
Change Period (Y+Rc), s	6.6	* 6.2		7.0		* 6.2		* 7				
Max Green Setting (Gmax), s	7.4	* 28		7.0		* 42		* 11				
Max Q Clear Time (g_c+I1), s	3.2	12.1		7.3		10.2		11.6				
Green Ext Time (p_c), s	0.0	5.1		0.0		6.5		0.0				

Intersection Summary	
HCM 6th Ctrl Delay	14.0
HCM 6th LOS	B

Notes

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

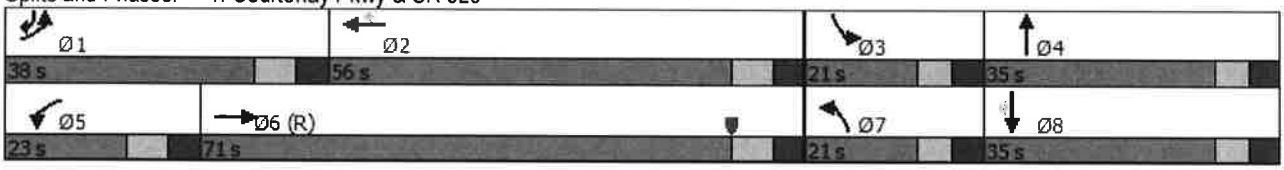
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	470	814	125	522	154	226	526	236	461	417
Future Volume (vph)	470	814	125	522	154	226	526	236	461	417
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA	pm+ov
Protected Phases	1	6	5	2		7	4	3	8	1
Permitted Phases					2					8
Detector Phase	1	6	5	2	2	7	4	3	8	1
Switch Phase										
Minimum Initial (s)	6.0	15.0	6.0	15.0	15.0	6.0	8.0	6.0	8.0	6.0
Minimum Split (s)	14.7	23.7	14.7	23.7	23.7	13.9	18.6	13.9	18.6	14.7
Total Split (s)	38.0	71.0	23.0	56.0	56.0	21.0	35.0	21.0	35.0	38.0
Total Split (%)	25.3%	47.3%	15.3%	37.3%	37.3%	14.0%	23.3%	14.0%	23.3%	25.3%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.1	4.1	4.1	4.1	4.8
All-Red Time (s)	3.9	3.9	3.9	3.9	3.9	3.8	3.8	3.8	3.8	3.9
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)	8.7	8.7	8.7	8.7	8.7	7.9	7.9	7.9	7.9	8.7
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	Max	Max	None	None	None	None	None

Intersection Summary

Cycle Length: 150
Actuated Cycle Length: 150
Offset: 37 (25%), Referenced to phase 6:EBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 1: Courtenay Pkwy & SR 520



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	470	814	216	125	522	154	226	526	71	236	461	417
Future Volume (veh/h)	470	814	216	125	522	154	226	526	71	236	461	417
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1856	1841	1885	1841	1870	1870	1885	1870	1870	1870	1870
Adj Flow Rate, veh/h	495	857	227	132	549	162	238	554	75	248	485	439
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	3	4	1	4	2	2	1	2	2	2	2
Cap, veh/h	554	1691	445	181	1585	500	283	573	77	292	651	959
Arrive On Green	0.16	0.42	0.42	0.02	0.10	0.10	0.08	0.18	0.18	0.08	0.18	0.18
Sat Flow, veh/h	3456	3992	1051	3483	5025	1585	3456	3171	428	3456	3554	2790
Grp Volume(v), veh/h	495	724	360	132	549	162	238	312	317	248	485	439
Grp Sat Flow(s),veh/h/ln	1728	1689	1666	1742	1675	1585	1728	1791	1808	1728	1777	1395
Q Serve(g_s), s	21.1	23.6	23.8	5.7	15.2	14.2	10.2	25.9	26.1	10.6	19.4	18.4
Cycle Q Clear(g_c), s	21.1	23.6	23.8	5.7	15.2	14.2	10.2	25.9	26.1	10.6	19.4	18.4
Prop In Lane	1.00		0.63	1.00		1.00	1.00		0.24	1.00		1.00
Lane Grp Cap(c), veh/h	554	1431	706	181	1585	500	283	324	327	292	651	959
V/C Ratio(X)	0.89	0.51	0.51	0.73	0.35	0.32	0.84	0.96	0.97	0.85	0.74	0.46
Avail Cap(c_a), veh/h	675	1431	706	332	1585	500	302	324	327	302	651	959
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.94	0.94	0.94	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	61.7	31.7	31.8	72.7	52.8	52.4	67.9	61.0	61.0	67.7	57.9	38.3
Incr Delay (d2), s/veh	12.5	1.3	2.6	5.2	0.6	1.6	18.1	40.5	41.6	19.6	4.6	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.0	9.7	9.9	2.7	6.9	6.3	5.2	15.4	15.7	5.5	9.1	6.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	74.3	33.0	34.4	77.8	53.4	54.0	86.0	101.5	102.6	87.3	62.6	38.7
LnGrp LOS	E	C	C	E	D	D	F	F	F	F	E	D
Approach Vol, veh/h		1579			843			867			1172	
Approach Delay, s/veh		46.3			57.3			97.7			58.9	
Approach LOS		D			E			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	32.8	56.0	20.6	35.0	16.5	72.2	20.2	35.4
Change Period (Y+Rc), s	* 8.7	* 8.7	* 7.9	* 7.9	* 8.7	* 8.7	* 7.9	* 7.9
Max Green Setting (Gmax), s	* 29	* 47	* 13	* 27	* 14	* 62	* 13	* 27
Max Q Clear Time (g_c+I1), s	23.1	17.2	12.6	28.1	7.7	25.8	12.2	21.4
Green Ext Time (p_c), s	1.0	4.2	0.0	0.0	0.2	8.0	0.1	2.5

Intersection Summary	
HCM 6th Ctrl Delay	61.6
HCM 6th LOS	E

Notes

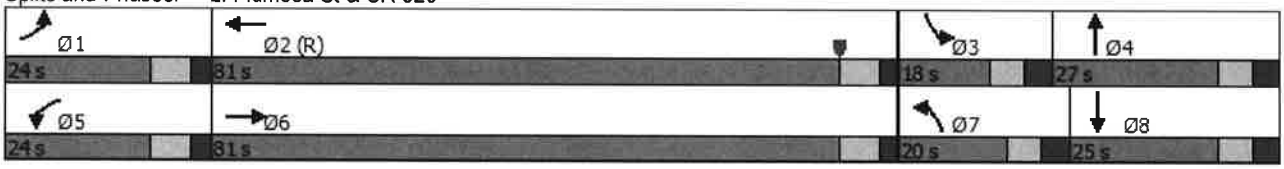
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	86	917	70	812	87	73	22	77
Future Volume (vph)	86	917	70	812	87	73	22	77
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	1	6	5	2	7	4	3	8
Permitted Phases								
Detector Phase	1	6	5	2	7	4	3	8
Switch Phase								
Minimum Initial (s)	6.0	15.0	6.0	15.0	6.0	8.0	6.0	8.0
Minimum Split (s)	13.1	22.1	13.1	22.1	13.4	15.4	13.4	15.4
Total Split (s)	24.0	81.0	24.0	81.0	20.0	27.0	18.0	25.0
Total Split (%)	16.0%	54.0%	16.0%	54.0%	13.3%	18.0%	12.0%	16.7%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.0	4.0	4.0	4.0
All-Red Time (s)	2.3	2.3	2.3	2.3	3.4	3.4	3.4	3.4
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.1	7.1	7.1	7.1	7.4	7.4	7.4	7.4
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	None	C-Max	None	None	None	None

Intersection Summary

Cycle Length: 150
Actuated Cycle Length: 150
Offset: 111 (74%), Referenced to phase 2:WBT, Start of Yellow
Natural Cycle: 65
Control Type: Actuated-Coordinated

Splits and Phases: 2: Plumosa St & SR 520



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	86	917	141	70	812	35	87	73	43	22	77	63
Future Volume (veh/h)	86	917	141	70	812	35	87	73	43	22	77	63
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1841	1841	1900	1856	1900	1826	1856	1870	1826	1841	1870
Adj Flow Rate, veh/h	90	955	147	73	846	36	91	76	45	23	80	66
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	4	4	0	3	0	5	3	2	5	4	2
Cap, veh/h	111	2604	400	93	2896	123	111	151	89	43	92	76
Arrive On Green	0.04	0.40	0.40	0.05	0.58	0.58	0.06	0.14	0.14	0.02	0.10	0.10
Sat Flow, veh/h	1781	4395	674	1810	4983	212	1739	1092	647	1739	933	769
Grp Volume(v), veh/h	90	727	375	73	573	309	91	0	121	23	0	146
Grp Sat Flow(s),veh/h/ln	1781	1675	1719	1810	1689	1817	1739	0	1739	1739	0	1702
Q Serve(g_s), s	7.5	23.0	23.1	6.0	12.8	12.9	7.8	0.0	9.7	2.0	0.0	12.7
Cycle Q Clear(g_c), s	7.5	23.0	23.1	6.0	12.8	12.9	7.8	0.0	9.7	2.0	0.0	12.7
Prop In Lane	1.00		0.39	1.00		0.12	1.00		0.37	1.00		0.45
Lane Grp Cap(c), veh/h	111	1985	1019	93	1963	1056	111	0	241	43	0	169
V/C Ratio(X)	0.81	0.37	0.37	0.79	0.29	0.29	0.82	0.00	0.50	0.54	0.00	0.87
Avail Cap(c_a), veh/h	201	1985	1019	204	1963	1056	146	0	241	123	0	200
HCM Platoon Ratio	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.80	0.80	0.80	0.98	0.98	0.98	0.99	0.00	0.99	1.00	0.00	1.00
Uniform Delay (d), s/veh	71.0	25.4	25.4	70.4	15.8	15.9	69.4	0.0	59.9	72.3	0.0	66.6
Incr Delay (d2), s/veh	10.5	0.4	0.8	13.4	0.4	0.7	23.2	0.0	1.6	10.0	0.0	27.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	9.8	10.2	3.1	4.9	5.4	4.2	0.0	4.4	1.0	0.0	6.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	81.4	25.8	26.2	83.8	16.2	16.5	92.6	0.0	61.5	82.3	0.0	93.9
LnGrp LOS	F	C	C	F	B	B	F	A	E	F	A	F
Approach Vol, veh/h		1192			955			212			169	
Approach Delay, s/veh		30.1			21.5			74.8			92.3	
Approach LOS		C			C			E			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.5	94.3	11.1	28.1	14.8	96.0	17.0	22.3
Change Period (Y+Rc), s	* 7.1	* 7.1	7.4	7.4	* 7.1	* 7.1	7.4	7.4
Max Green Setting (Gmax), s	* 17	* 74	10.6	19.6	* 17	* 74	12.6	17.6
Max Q Clear Time (g_c+I1), s	9.5	14.9	4.0	11.7	8.0	25.1	9.8	14.7
Green Ext Time (p_c), s	0.1	6.1	0.0	0.3	0.1	8.4	0.0	0.2

Intersection Summary	
HCM 6th Ctrl Delay	34.8
HCM 6th LOS	C

Notes

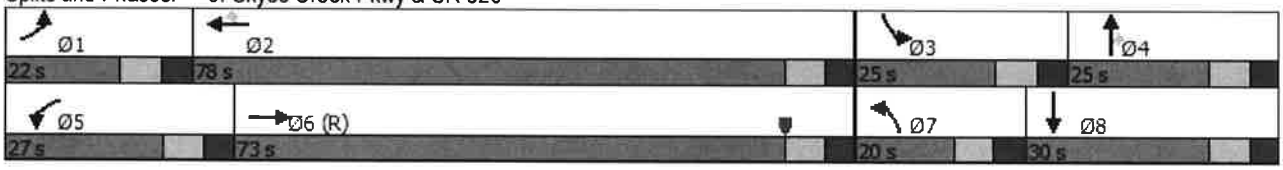
User approved pedestrian interval to be less than phase max green.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	132	659	79	710	268	17	74	146	234	78	117
Future Volume (vph)	132	659	79	710	268	17	74	146	234	78	117
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Free
Protected Phases	1	6	5	2		7	4		3	8	
Permitted Phases					2			4			Free
Detector Phase	1	6	5	2	2	7	4	4	3	8	
Switch Phase											
Minimum Initial (s)	6.0	15.0	6.0	15.0	15.0	6.0	8.0	8.0	6.0	8.0	
Minimum Split (s)	14.3	23.3	14.3	23.3	23.3	14.4	16.4	16.4	14.4	16.4	
Total Split (s)	22.0	73.0	27.0	78.0	78.0	20.0	25.0	25.0	25.0	30.0	
Total Split (%)	14.7%	48.7%	18.0%	52.0%	52.0%	13.3%	16.7%	16.7%	16.7%	20.0%	
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	
All-Red Time (s)	3.5	3.5	3.5	3.5	3.5	3.6	3.6	3.6	3.6	3.6	
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)	8.3	8.3	8.3	8.3	8.3	8.4	8.4	8.4	8.4	8.4	
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	C-Max	None	Max	Max	None	None	None	None	None	

Intersection Summary

Cycle Length: 150
Actuated Cycle Length: 150
Offset: 112 (75%), Referenced to phase 6:EBT, Start of Yellow
Natural Cycle: 70
Control Type: Actuated-Coordinated

Splits and Phases: 3: Skyes Creek Pkwy & SR 520



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	132	659	23	79	710	268	17	74	146	234	78	117
Future Volume (veh/h)	132	659	23	79	710	268	17	74	146	234	78	117
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1826	1826	1870	1856	1870	1811	1870	1885	1870	1885	1885
Adj Flow Rate, veh/h	143	716	25	86	772	291	18	80	159	254	85	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	1	5	5	2	3	2	6	2	1	2	1	1
Cap, veh/h	191	2377	83	134	2354	1296	36	393	177	303	334	
Arrive On Green	0.05	0.48	0.48	0.04	0.46	0.46	0.02	0.11	0.11	0.09	0.18	0.00
Sat Flow, veh/h	3483	4946	172	3456	5066	2790	1725	3554	1598	3456	1885	1598
Grp Volume(v), veh/h	143	480	261	86	772	291	18	80	159	254	85	0
Grp Sat Flow(s),veh/h/ln	1742	1662	1795	1728	1689	1395	1725	1777	1598	1728	1885	1598
Q Serve(g_s), s	6.1	13.2	13.2	3.7	14.4	9.4	1.5	3.1	14.7	10.9	5.8	0.0
Cycle Q Clear(g_c), s	6.1	13.2	13.2	3.7	14.4	9.4	1.5	3.1	14.7	10.9	5.8	0.0
Prop In Lane	1.00		0.10	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	191	1597	863	134	2354	1296	36	393	177	303	334	
V/C Ratio(X)	0.75	0.30	0.30	0.64	0.33	0.22	0.49	0.20	0.90	0.84	0.25	
Avail Cap(c_a), veh/h	318	1597	863	431	2354	1296	133	393	177	382	334	
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	1.00
Upstream Filter(I)	0.92	0.92	0.92	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	69.9	23.7	23.7	71.0	25.4	24.0	72.6	60.7	65.9	67.4	53.2	0.0
Incr Delay (d2), s/veh	5.3	0.4	0.8	5.0	0.4	0.4	10.0	0.3	40.5	12.5	0.4	0.0
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	0.0
%ile BackOfQ(50%),veh/ln	2.8	5.2	5.7	1.7	5.8	3.1	0.8	1.4	7.9	5.2	2.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	75.2	24.1	24.5	76.0	25.7	24.4	82.6	60.9	106.3	79.9	53.6	0.0
LnGrp LOS	E	C	C	E	C	C	F	E	F	E	D	
Approach Vol, veh/h		884			1149			257			339	A
Approach Delay, s/veh		32.5			29.2			90.5			73.3	
Approach LOS		C			C			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.5	78.0	21.5	25.0	14.1	80.4	11.6	35.0
Change Period (Y+Rc), s	8.3	8.3	* 8.4	* 8.4	8.3	8.3	* 8.4	* 8.4
Max Green Setting (Gmax), s	13.7	69.7	* 17	* 17	18.7	64.7	* 12	* 22
Max Q Clear Time (g_c+I1), s	8.1	16.4	12.9	16.7	5.7	15.2	3.5	7.8
Green Ext Time (p_c), s	0.2	7.2	0.3	0.0	0.2	4.9	0.0	0.2

Intersection Summary	
HCM 6th Ctrl Delay	42.0
HCM 6th LOS	D

Notes

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

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

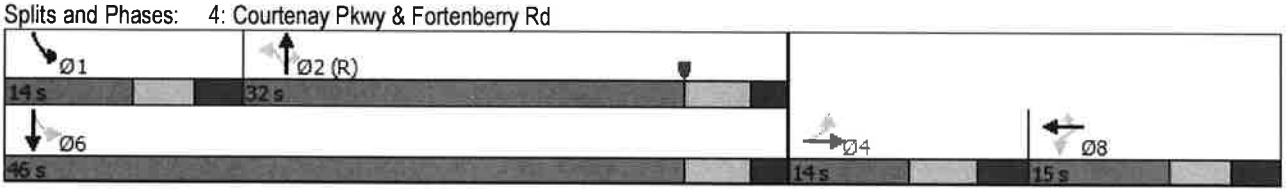
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	1	0	44	0	97	1	646	69	103	630
Future Volume (vph)	1	0	44	0	97	1	646	69	103	630
Turn Type	Perm	NA	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA
Protected Phases		4		8			2		1	6
Permitted Phases	4		8		8	2		2	6	
Detector Phase	4	4	8	8	8	2	2	2	1	6
Switch Phase										
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	12.0	12.0	12.0	5.0	12.0
Minimum Split (s)	14.0	14.0	13.6	13.6	13.6	18.2	18.2	18.2	11.6	18.2
Total Split (s)	14.0	14.0	15.0	15.0	15.0	32.0	32.0	32.0	14.0	46.0
Total Split (%)	18.7%	18.7%	20.0%	20.0%	20.0%	42.7%	42.7%	42.7%	18.7%	61.3%
Yellow Time (s)	4.0	4.0	3.6	3.6	3.6	4.0	4.0	4.0	3.6	4.0
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	2.2	2.2	2.2	3.0	2.2
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		7.0		6.6	6.6	6.2	6.2	6.2	6.6	6.2
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lag	Lag	Lag	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	C-Max	C-Max	C-Max	None	Max

Intersection Summary

Cycle Length: 75
Actuated Cycle Length: 75
Offset: 32 (43%), Referenced to phase 2:NBTL, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 4: Courtenay Pkwy & Fortenberry Rd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	0	0	44	0	97	1	646	69	103	630	0
Future Volume (veh/h)	1	0	0	44	0	97	1	646	69	103	630	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1826	1900	1841	1900	1870	1870	1900	1841	1900
Adj Flow Rate, veh/h	1	0	0	45	0	100	1	666	71	106	649	0
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	0.97
Percent Heavy Veh, %	0	0	0	5	0	4	0	2	2	0	4	0
Cap, veh/h	182	0	0	233	0	139	563	2089	932	564	2571	0
Arrive On Green	0.09	0.00	0.00	0.09	0.00	0.09	0.59	0.59	0.59	0.06	0.74	0.00
Sat Flow, veh/h	971	0	0	1540	0	1560	795	3554	1585	1810	3589	0
Grp Volume(v), veh/h	1	0	0	45	0	100	1	666	71	106	649	0
Grp Sat Flow(s),veh/h/ln	972	0	0	1540	0	1560	795	1777	1585	1810	1749	0
Q Serve(g_s), s	0.1	0.0	0.0	0.0	0.0	4.7	0.0	7.1	1.4	1.5	4.5	0.0
Cycle Q Clear(g_c), s	1.8	0.0	0.0	1.7	0.0	4.7	0.0	7.1	1.4	1.5	4.5	0.0
Prop In Lane	1.00		0.00	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	182	0	0	233	0	139	563	2089	932	564	2571	0
V/C Ratio(X)	0.01	0.00	0.00	0.19	0.00	0.72	0.00	0.32	0.08	0.19	0.25	0.00
Avail Cap(c_a), veh/h	188	0	0	266	0	175	563	2089	932	635	2571	0
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	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	32.8	0.0	0.0	31.9	0.0	33.3	6.4	7.8	6.7	4.9	3.2	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.4	0.0	10.2	0.0	0.4	0.2	0.2	0.2	0.0
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	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.8	0.0	2.1	0.0	2.4	0.4	0.4	1.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.8	0.0	0.0	32.3	0.0	43.5	6.4	8.2	6.8	5.0	3.5	0.0
LnGrp LOS	C	A	A	C	A	D	A	A	A	A	A	A
Approach Vol, veh/h		1			145			738			755	
Approach Delay, s/veh		32.8			40.0			8.1			3.7	
Approach LOS		C			D			A			A	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	11.1	50.3		13.7		61.3		13.7				
Change Period (Y+Rc), s	6.6	* 6.2		7.0		* 6.2		* 7				
Max Green Setting (Gmax), s	7.4	* 26		7.0		* 40		* 8.4				
Max Q Clear Time (g_c+I1), s	3.5	9.1		3.8		6.5		6.7				
Green Ext Time (p_c), s	0.1	4.3		0.0		4.8		0.1				

Intersection Summary	
HCM 6th Ctrl Delay	8.9
HCM 6th LOS	A

Notes

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

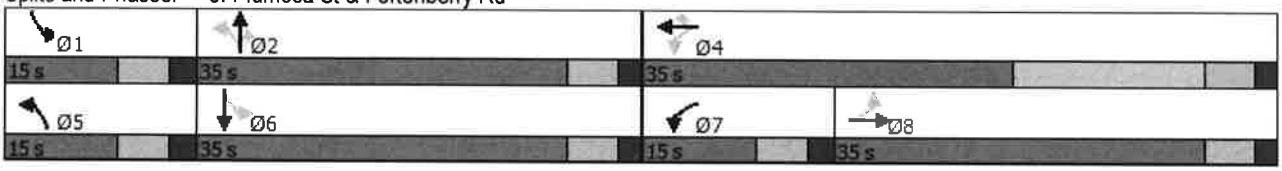
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	13	64	101	61	66	15	133	134	36	179
Future Volume (vph)	13	64	101	61	66	15	133	134	36	179
Turn Type	Perm	NA	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA
Protected Phases		8	7	4		5	2		1	6
Permitted Phases	8		4		4	2		2	6	
Detector Phase	8	8	7	4	4	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	7.0	7.0	5.0	7.0	7.0	5.0	14.0	14.0	5.0	14.0
Minimum Split (s)	13.0	13.0	11.0	13.0	13.0	11.0	20.0	20.0	11.0	20.0
Total Split (s)	35.0	35.0	15.0	35.0	35.0	15.0	35.0	35.0	15.0	35.0
Total Split (%)	35.0%	35.0%	15.0%	35.0%	35.0%	15.0%	35.0%	35.0%	15.0%	35.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lag	Lag	Lead			Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes			Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 67.9
Natural Cycle: 55
Control Type: Actuated-Uncoordinated

Splits and Phases: 5: Plumosa St & Fortenberry Rd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	64	46	101	61	66	15	133	134	36	179	25
Future Volume (veh/h)	13	64	46	101	61	66	15	133	134	36	179	25
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1841	1900	1870	1900	1826	1900	1826	1900	1900	1870	1767
Adj Flow Rate, veh/h	14	70	51	111	67	73	16	146	147	40	197	27
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	4	0	2	0	5	0	5	0	0	2	9
Cap, veh/h	239	105	76	298	523	426	569	773	682	587	713	98
Arrive On Green	0.11	0.11	0.11	0.08	0.28	0.28	0.02	0.42	0.42	0.04	0.44	0.44
Sat Flow, veh/h	1269	990	721	1781	1900	1547	1810	1826	1610	1810	1610	221
Grp Volume(v), veh/h	14	0	121	111	67	73	16	146	147	40	0	224
Grp Sat Flow(s),veh/h/ln	1269	0	1711	1781	1900	1547	1810	1826	1610	1810	0	1831
Q Serve(g_s), s	0.7	0.0	4.7	3.6	1.8	2.5	0.3	3.4	4.0	0.8	0.0	5.3
Cycle Q Clear(g_c), s	0.7	0.0	4.7	3.6	1.8	2.5	0.3	3.4	4.0	0.8	0.0	5.3
Prop In Lane	1.00		0.42	1.00		1.00	1.00		1.00	1.00		0.12
Lane Grp Cap(c), veh/h	239	0	181	298	523	426	569	773	682	587	0	811
V/C Ratio(X)	0.06	0.00	0.67	0.37	0.13	0.17	0.03	0.19	0.22	0.07	0.00	0.28
Avail Cap(c_a), veh/h	642	0	724	387	804	655	772	773	682	755	0	811
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	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	27.7	0.0	29.5	22.8	18.7	18.9	10.9	12.4	12.5	10.2	0.0	12.1
Incr Delay (d2), s/veh	0.1	0.0	4.2	0.8	0.1	0.2	0.0	0.5	0.7	0.0	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	2.0	1.5	0.8	0.8	0.1	1.4	1.4	0.3	0.0	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.8	0.0	33.7	23.5	18.8	19.1	10.9	12.9	13.3	10.3	0.0	12.9
LnGrp LOS	C	A	C	C	B	B	B	B	B	B	A	B
Approach Vol, veh/h		135			251			309			264	
Approach Delay, s/veh		33.1			21.0			13.0			12.5	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2		4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.7	35.0		24.8	7.3	36.4	11.6	13.3
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	9.0	29.0		29.0	9.0	29.0	9.0	29.0
Max Q Clear Time (g_c+I1), s	2.8	6.0		4.5	2.3	7.3	5.6	6.7
Green Ext Time (p_c), s	0.0	1.2		0.5	0.0	1.2	0.1	0.6

Intersection Summary	
HCM 6th Ctrl Delay	17.8
HCM 6th LOS	B

Intersection	
Int Delay, s/veh	1.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	218	16	4	175	53	11
Future Vol, veh/h	218	16	4	175	53	11
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	237	17	4	190	58	12

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	254	0	444	246
Stage 1	-	-	-	-	246	-
Stage 2	-	-	-	-	198	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1311	-	571	793
Stage 1	-	-	-	-	795	-
Stage 2	-	-	-	-	835	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1311	-	569	793
Mov Cap-2 Maneuver	-	-	-	-	569	-
Stage 1	-	-	-	-	795	-
Stage 2	-	-	-	-	832	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	11.8
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	598	-	-	1311	-
HCM Lane V/C Ratio	0.116	-	-	0.003	-
HCM Control Delay (s)	11.8	-	-	7.8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.4	-	-	0	-

Intersection	
Int Delay, s/veh	1.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	221	8	7	152	27	24
Future Vol, veh/h	221	8	7	152	27	24
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	240	9	8	165	29	26

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	249	0	426	245
Stage 1	-	-	-	-	245	-
Stage 2	-	-	-	-	181	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1317	-	585	794
Stage 1	-	-	-	-	796	-
Stage 2	-	-	-	-	850	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1317	-	581	794
Mov Cap-2 Maneuver	-	-	-	-	581	-
Stage 1	-	-	-	-	796	-
Stage 2	-	-	-	-	844	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	10.9
HCM LOS			B

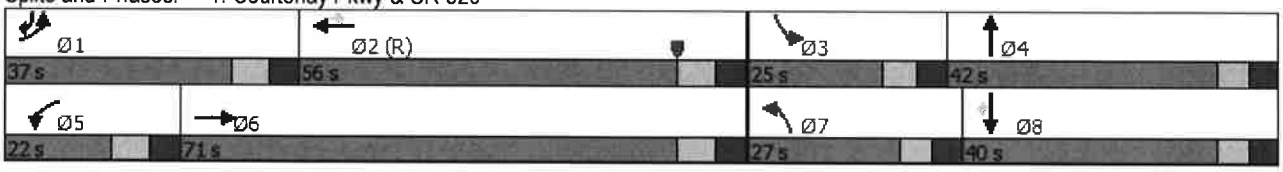
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	665	-	-	1317	-
HCM Lane V/C Ratio	0.083	-	-	0.006	-
HCM Control Delay (s)	10.9	-	-	7.7	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.3	-	-	0	-

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	464	912	140	964	293	369	583	325	557	504
Future Volume (vph)	464	912	140	964	293	369	583	325	557	504
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA	pm+ov
Protected Phases	1	6	5	2		7	4	3	8	1
Permitted Phases					2					8
Detector Phase	1	6	5	2	2	7	4	3	8	1
Switch Phase										
Minimum Initial (s)	6.0	15.0	6.0	15.0	15.0	6.0	8.0	6.0	8.0	6.0
Minimum Split (s)	14.7	23.7	14.7	23.7	23.7	13.9	15.9	13.9	15.9	14.7
Total Split (s)	37.0	71.0	22.0	56.0	56.0	27.0	42.0	25.0	40.0	37.0
Total Split (%)	23.1%	44.4%	13.8%	35.0%	35.0%	16.9%	26.3%	15.6%	25.0%	23.1%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.1	4.1	4.1	4.1	4.8
All-Red Time (s)	3.9	3.9	3.9	3.9	3.9	3.8	3.8	3.8	3.8	3.9
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)	8.7	8.7	8.7	8.7	8.7	7.9	7.9	7.9	7.9	8.7
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	None	C-Max	C-Max	None	None	None	None	None

Intersection Summary

Cycle Length: 160
Actuated Cycle Length: 160
Offset: 20 (13%), Referenced to phase 2:WBT, Start of Yellow
Natural Cycle: 100
Control Type: Actuated-Coordinated

Splits and Phases: 1: Courtenay Pkwy & SR 520



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	464	912	173	140	964	293	369	583	72	325	557	504
Future Volume (veh/h)	464	912	173	140	964	293	369	583	72	325	557	504
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1885	1885	1885	1870	1885	1870	1870	1900	1900	1900	1885
Adj Flow Rate, veh/h	494	970	184	149	1026	312	393	620	77	346	593	536
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	1	1	1	2	1	2	2	0	0	0	1
Cap, veh/h	546	1831	346	195	1644	514	413	663	82	375	707	988
Arrive On Green	0.16	0.42	0.42	0.02	0.11	0.11	0.12	0.21	0.21	0.11	0.20	0.20
Sat Flow, veh/h	3510	4346	822	3483	5106	1598	3456	3182	394	3510	3610	2812
Grp Volume(v), veh/h	494	765	389	149	1026	312	393	346	351	346	593	536
Grp Sat Flow(s),veh/h/ln	1755	1716	1737	1742	1702	1598	1728	1777	1799	1755	1805	1406
Q Serve(g_s), s	22.1	26.6	26.7	6.8	30.8	29.9	18.1	30.6	30.7	15.6	25.3	24.4
Cycle Q Clear(g_c), s	22.1	26.6	26.7	6.8	30.8	29.9	18.1	30.6	30.7	15.6	25.3	24.4
Prop In Lane	1.00		0.47	1.00		1.00	1.00		0.22	1.00		1.00
Lane Grp Cap(c), veh/h	546	1446	732	195	1644	514	413	370	375	375	707	988
V/C Ratio(X)	0.91	0.53	0.53	0.76	0.62	0.61	0.95	0.93	0.94	0.92	0.84	0.54
Avail Cap(c_a), veh/h	621	1446	732	290	1644	514	413	379	383	375	724	1001
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.78	0.78	0.78	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	66.4	34.5	34.5	77.5	62.2	61.8	70.0	62.3	62.3	70.8	61.9	41.6
Incr Delay (d2), s/veh	15.6	1.4	2.8	5.3	1.4	4.1	32.3	29.8	30.1	27.8	8.5	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.9	11.2	11.7	3.3	14.3	13.5	9.8	16.8	17.1	8.5	12.4	8.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	82.1	35.9	37.3	82.8	63.6	65.9	102.3	92.0	92.4	98.6	70.4	42.2
LnGrp LOS	F	D	D	F	E	E	F	F	F	F	E	D
Approach Vol, veh/h		1648			1487			1090			1475	
Approach Delay, s/veh		50.0			66.0			95.9			66.8	
Approach LOS		D			E			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	33.6	60.2	25.0	41.2	17.7	76.1	27.0	39.2
Change Period (Y+Rc), s	* 8.7	* 8.7	* 7.9	* 7.9	* 8.7	* 8.7	* 7.9	* 7.9
Max Green Setting (Gmax), s	* 28	* 47	* 17	* 34	* 13	* 62	* 19	* 32
Max Q Clear Time (g_c+I1), s	24.1	32.8	17.6	32.7	8.8	28.7	20.1	27.3
Green Ext Time (p_c), s	0.7	6.7	0.0	0.6	0.2	8.5	0.0	2.6

Intersection Summary	
HCM 6th Ctrl Delay	67.3
HCM 6th LOS	E

Notes

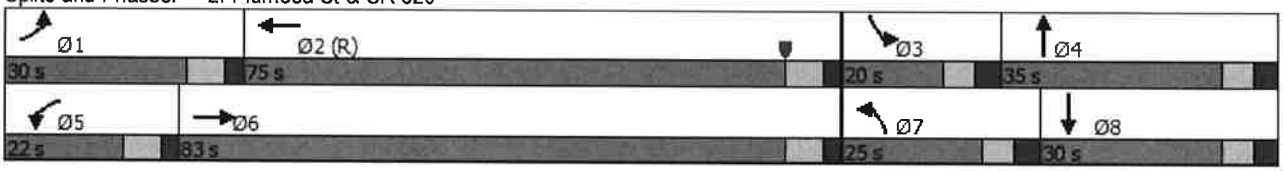
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	124	1232	90	1296	121	101	60	77
Future Volume (vph)	124	1232	90	1296	121	101	60	77
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	1	6	5	2	7	4	3	8
Permitted Phases								
Detector Phase	1	6	5	2	7	4	3	8
Switch Phase								
Minimum Initial (s)	6.0	15.0	6.0	15.0	6.0	8.0	6.0	8.0
Minimum Split (s)	13.2	22.2	13.2	22.2	13.4	15.4	13.4	15.4
Total Split (s)	30.0	83.0	22.0	75.0	25.0	35.0	20.0	30.0
Total Split (%)	18.8%	51.9%	13.8%	46.9%	15.6%	21.9%	12.5%	18.8%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.0	4.0	4.0	4.0
All-Red Time (s)	2.3	2.3	2.3	2.3	3.4	3.4	3.4	3.4
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.1	7.1	7.1	7.1	7.4	7.4	7.4	7.4
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	None	C-Min	None	None	None	None

Intersection Summary

Cycle Length: 160
Actuated Cycle Length: 160
Offset: 102 (64%), Referenced to phase 2:WBT, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 2: Plumosa St & SR 520



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	124	1232	129	90	1296	102	121	101	64	60	77	110
Future Volume (veh/h)	124	1232	129	90	1296	102	121	101	64	60	77	110
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1811	1885	1870	1900	1870	1856	1870	1900	1870	1841	1885	1885
Adj Flow Rate, veh/h	128	1270	133	93	1336	105	125	104	66	62	79	113
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	0.97
Percent Heavy Veh, %	6	1	2	0	2	3	2	0	2	4	1	1
Cap, veh/h	149	2596	272	113	2533	199	146	177	112	78	88	126
Arrive On Green	0.09	0.55	0.55	0.06	0.52	0.52	0.08	0.16	0.16	0.04	0.13	0.13
Sat Flow, veh/h	1725	4732	495	1810	4827	379	1781	1086	689	1753	701	1003
Grp Volume(v), veh/h	128	921	482	93	942	499	125	0	170	62	0	192
Grp Sat Flow(s),veh/h/ln	1725	1716	1796	1810	1702	1802	1781	0	1776	1753	0	1705
Q Serve(g_s), s	11.7	26.5	26.5	8.1	29.1	29.1	11.1	0.0	14.2	5.6	0.0	17.8
Cycle Q Clear(g_c), s	11.7	26.5	26.5	8.1	29.1	29.1	11.1	0.0	14.2	5.6	0.0	17.8
Prop In Lane	1.00		0.28	1.00		0.21	1.00		0.39	1.00		0.59
Lane Grp Cap(c), veh/h	149	1883	985	113	1786	946	146	0	289	78	0	213
V/C Ratio(X)	0.86	0.49	0.49	0.82	0.53	0.53	0.85	0.00	0.59	0.79	0.00	0.90
Avail Cap(c_a), veh/h	247	1883	985	169	1786	946	196	0	306	138	0	241
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	1.00
Upstream Filter(I)	0.71	0.71	0.71	0.95	0.95	0.95	0.98	0.00	0.98	1.00	0.00	1.00
Uniform Delay (d), s/veh	72.1	22.3	22.3	74.1	25.0	25.0	72.5	0.0	62.0	75.7	0.0	69.0
Incr Delay (d2), s/veh	10.8	0.6	1.2	16.9	1.1	2.0	22.7	0.0	2.6	16.0	0.0	30.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.6	10.6	11.2	4.3	11.7	12.6	6.0	0.0	6.6	2.9	0.0	9.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	82.9	22.9	23.5	91.0	26.0	27.0	95.2	0.0	64.6	91.7	0.0	99.6
LnGrp LOS	F	C	C	F	C	C	F	A	E	F	A	F
Approach Vol, veh/h		1531			1534			295			254	
Approach Delay, s/veh		28.1			30.3			77.6			97.7	
Approach LOS		C			C			E			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.0	91.1	14.6	33.4	17.1	94.9	20.5	27.4
Change Period (Y+Rc), s	* 7.1	* 7.1	7.4	7.4	* 7.1	* 7.1	7.4	7.4
Max Green Setting (Gmax), s	* 23	* 68	12.6	27.6	* 15	* 76	17.6	22.6
Max Q Clear Time (g_c+I1), s	13.7	31.1	7.6	16.2	10.1	28.5	13.1	19.8
Green Ext Time (p_c), s	0.2	11.8	0.0	0.6	0.1	12.0	0.1	0.3

Intersection Summary	
HCM 6th Ctrl Delay	38.0
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	214	893	164	895	302	64	124	200	329	138	162
Future Volume (vph)	214	893	164	895	302	64	124	200	329	138	162
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Free
Protected Phases	1	6	5	2		7	4		3	8	
Permitted Phases					2			4			Free
Detector Phase	1	6	5	2	2	7	4	4	3	8	
Switch Phase											
Minimum Initial (s)	6.0	15.0	6.0	15.0	15.0	6.0	8.0	8.0	6.0	8.0	
Minimum Split (s)	14.3	23.3	14.3	23.3	23.3	14.4	16.4	16.4	14.4	16.4	
Total Split (s)	23.0	75.0	25.0	77.0	77.0	23.0	30.0	30.0	30.0	37.0	
Total Split (%)	14.4%	46.9%	15.6%	48.1%	48.1%	14.4%	18.8%	18.8%	18.8%	23.1%	
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	
All-Red Time (s)	3.5	3.5	3.5	3.5	3.5	3.6	3.6	3.6	3.6	3.6	
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)	8.3	8.3	8.3	8.3	8.3	8.4	8.4	8.4	8.4	8.4	
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	C-Max	None	Max	Max	None	None	None	None	None	

Intersection Summary

Cycle Length: 160
Actuated Cycle Length: 160
Offset: 105 (66%), Referenced to phase 6:EBT, Start of Yellow
Natural Cycle: 75
Control Type: Actuated-Coordinated

Splits and Phases: 3: Skyes Creek Pkwy & SR 520



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	214	893	30	164	895	302	64	124	200	329	138	162
Future Volume (veh/h)	214	893	30	164	895	302	64	124	200	329	138	162
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1900	1870	1856	1856	1900	1870	1870	1885	1856	1885
Adj Flow Rate, veh/h	223	930	31	171	932	315	67	129	208	343	144	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	1	1	0	2	3	3	0	2	2	1	3	1
Cap, veh/h	267	2267	75	217	2175	1188	85	480	214	391	372	
Arrive On Green	0.08	0.44	0.44	0.06	0.43	0.43	0.05	0.14	0.14	0.11	0.20	0.00
Sat Flow, veh/h	3483	5115	170	3456	5066	2768	1810	3554	1585	3483	1856	1598
Grp Volume(v), veh/h	223	623	338	171	932	315	67	129	208	343	144	0
Grp Sat Flow(s),veh/h/ln	1742	1716	1855	1728	1689	1384	1810	1777	1585	1742	1856	1598
Q Serve(g_s), s	10.1	19.8	19.8	7.8	20.6	11.7	5.9	5.2	20.9	15.5	10.8	0.0
Cycle Q Clear(g_c), s	10.1	19.8	19.8	7.8	20.6	11.7	5.9	5.2	20.9	15.5	10.8	0.0
Prop In Lane	1.00		0.09	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	267	1521	822	217	2175	1188	85	480	214	391	372	
V/C Ratio(X)	0.83	0.41	0.41	0.79	0.43	0.27	0.79	0.27	0.97	0.88	0.39	
Avail Cap(c_a), veh/h	320	1521	822	361	2175	1188	165	480	214	470	372	
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	1.00
Upstream Filter(I)	0.84	0.84	0.84	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	72.9	30.3	30.3	73.9	31.9	29.4	75.5	62.1	68.9	69.9	55.5	0.0
Incr Delay (d2), s/veh	12.8	0.7	1.3	6.2	0.6	0.5	14.7	0.3	53.4	14.8	0.7	0.0
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	0.0
%ile BackOfQ(50%),veh/ln	4.9	8.2	9.0	3.6	8.4	4.0	3.1	2.4	11.5	7.6	5.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	85.6	31.0	31.6	80.1	32.5	29.9	90.2	62.4	122.3	84.8	56.1	0.0
LnGrp LOS	F	C	C	F	C	C	F	E	F	F	E	
Approach Vol, veh/h		1184			1418			404			487	A
Approach Delay, s/veh		41.5			37.7			97.8			76.3	
Approach LOS		D			D			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.6	77.0	26.4	30.0	18.4	79.2	15.9	40.5
Change Period (Y+Rc), s	8.3	8.3	* 8.4	* 8.4	8.3	8.3	* 8.4	* 8.4
Max Green Setting (Gmax), s	14.7	68.7	* 22	* 22	16.7	66.7	* 15	* 29
Max Q Clear Time (g_c+I1), s	12.1	22.6	17.5	22.9	9.8	21.8	7.9	12.8
Green Ext Time (p_c), s	0.2	9.1	0.5	0.0	0.3	6.8	0.1	0.5

Intersection Summary	
HCM 6th Ctrl Delay	51.3
HCM 6th LOS	D

Notes

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

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

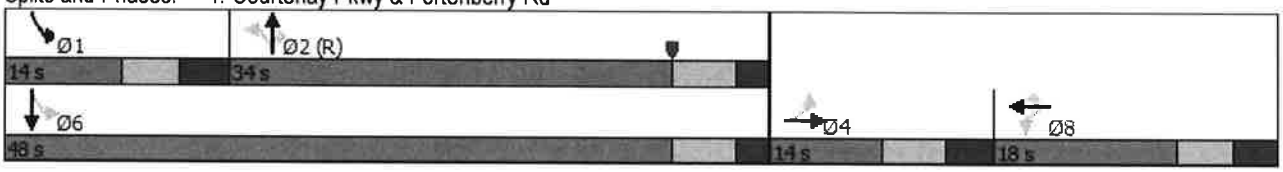
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	1	0	95	0	193	3	738	66	84	854
Future Volume (vph)	1	0	95	0	193	3	738	66	84	854
Turn Type	Perm	NA	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA
Protected Phases		4		8			2		1	6
Permitted Phases	4		8		8	2		2	6	
Detector Phase	4	4	8	8	8	2	2	2	1	6
Switch Phase										
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	12.0	12.0	12.0	5.0	12.0
Minimum Split (s)	14.0	14.0	13.6	13.6	13.6	18.2	18.2	18.2	11.6	18.2
Total Split (s)	14.0	14.0	18.0	18.0	18.0	34.0	34.0	34.0	14.0	48.0
Total Split (%)	17.5%	17.5%	22.5%	22.5%	22.5%	42.5%	42.5%	42.5%	17.5%	60.0%
Yellow Time (s)	4.0	4.0	3.6	3.6	3.6	4.0	4.0	4.0	3.6	4.0
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	2.2	2.2	2.2	3.0	2.2
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		7.0		6.6	6.6	6.2	6.2	6.2	6.6	6.2
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lag	Lag	Lag	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	C-Max	C-Max	C-Max	None	Max

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 18 (23%), Referenced to phase 2:NBTL, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 4: Courtenay Pkwy & Fortenberry Rd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	0	2	95	0	193	3	738	66	84	854	1
Future Volume (veh/h)	1	0	2	95	0	193	3	738	66	84	854	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1885	1900	1870	1826	1900	1885	1900
Adj Flow Rate, veh/h	1	0	2	102	0	208	3	794	71	90	918	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	1	0	2	5	0	1	0
Cap, veh/h	95	25	122	290	0	228	433	1976	860	466	2542	3
Arrive On Green	0.14	0.00	0.14	0.14	0.00	0.14	0.56	0.56	0.56	0.05	0.69	0.69
Sat Flow, veh/h	248	179	853	1403	0	1598	618	3554	1547	1810	3671	4
Grp Volume(v), veh/h	3	0	0	102	0	208	3	794	71	90	448	471
Grp Sat Flow(s),veh/h/ln	1279	0	0	1403	0	1598	618	1777	1547	1810	1791	1884
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	10.3	0.2	10.2	1.7	1.5	8.2	8.2
Cycle Q Clear(g_c), s	5.5	0.0	0.0	5.5	0.0	10.3	0.2	10.2	1.7	1.5	8.2	8.2
Prop In Lane	0.33		0.67	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	242	0	0	290	0	228	433	1976	860	466	1240	1305
V/C Ratio(X)	0.01	0.00	0.00	0.35	0.00	0.91	0.01	0.40	0.08	0.19	0.36	0.36
Avail Cap(c_a), veh/h	242	0	0	290	0	228	433	1976	860	536	1240	1305
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	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.5	0.0	0.0	31.8	0.0	33.8	7.9	10.2	8.3	6.7	5.0	5.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.7	0.0	37.0	0.0	0.6	0.2	0.2	0.8	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	1.9	0.0	6.3	0.0	3.6	0.5	0.5	2.5	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.5	0.0	0.0	32.5	0.0	70.8	8.0	10.8	8.5	6.9	5.9	5.8
LnGrp LOS	C	A	A	C	A	E	A	B	A	A	A	A
Approach Vol, veh/h		3			310			868			1009	
Approach Delay, s/veh		29.5			58.2			10.6			5.9	
Approach LOS		C			E			B			A	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	10.9	50.7		18.4		61.6		18.4				
Change Period (Y+Rc), s	6.6	* 6.2		7.0		* 6.2		* 7				
Max Green Setting (Gmax), s	7.4	* 28		7.0		* 42		* 11				
Max Q Clear Time (g_c+I1), s	3.5	12.2		7.5		10.2		12.3				
Green Ext Time (p_c), s	0.1	5.0		0.0		6.5		0.0				

Intersection Summary	
HCM 6th Ctrl Delay	15.2
HCM 6th LOS	B

Notes

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

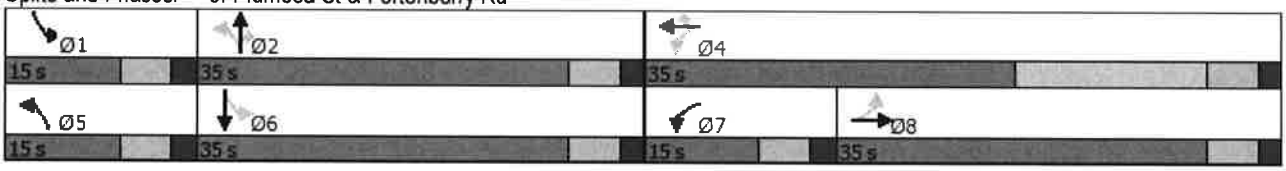
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	27	125	146	137	85	39	169	172	82	133
Future Volume (vph)	27	125	146	137	85	39	169	172	82	133
Turn Type	Perm	NA	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA
Protected Phases		8	7	4		5	2		1	6
Permitted Phases	8		4		4	2		2	6	
Detector Phase	8	8	7	4	4	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	7.0	7.0	5.0	7.0	7.0	5.0	14.0	14.0	5.0	14.0
Minimum Split (s)	13.0	13.0	11.0	13.0	13.0	11.0	20.0	20.0	11.0	20.0
Total Split (s)	35.0	35.0	15.0	35.0	35.0	15.0	35.0	35.0	15.0	35.0
Total Split (%)	35.0%	35.0%	15.0%	35.0%	35.0%	15.0%	35.0%	35.0%	15.0%	35.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lag	Lag	Lead			Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes			Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 79.8
Natural Cycle: 55
Control Type: Actuated-Uncoordinated

Splits and Phases: 5: Plumosa St & Fortenberry Rd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	125	37	146	137	85	39	169	172	82	133	30
Future Volume (veh/h)	27	125	37	146	137	85	39	169	172	82	133	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1885	1900	1870	1900	1870	1900	1885	1856	1841	1885	1900
Adj Flow Rate, veh/h	30	139	41	162	152	94	43	188	191	91	148	33
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	1	0	2	0	2	0	1	3	4	1	0
Cap, veh/h	252	189	56	324	601	502	581	729	608	510	603	134
Arrive On Green	0.14	0.14	0.14	0.10	0.32	0.32	0.04	0.39	0.39	0.06	0.40	0.40
Sat Flow, veh/h	1152	1398	412	1781	1900	1585	1810	1885	1572	1753	1492	333
Grp Volume(v), veh/h	30	0	180	162	152	94	43	188	191	91	0	181
Grp Sat Flow(s),veh/h/ln	1152	0	1811	1781	1900	1585	1810	1885	1572	1753	0	1825
Q Serve(g_s), s	1.7	0.0	7.2	5.5	4.5	3.2	1.0	5.1	6.4	2.3	0.0	4.9
Cycle Q Clear(g_c), s	1.7	0.0	7.2	5.5	4.5	3.2	1.0	5.1	6.4	2.3	0.0	4.9
Prop In Lane	1.00		0.23	1.00		1.00	1.00		1.00	1.00		0.18
Lane Grp Cap(c), veh/h	252	0	245	324	601	502	581	729	608	510	0	737
V/C Ratio(X)	0.12	0.00	0.73	0.50	0.25	0.19	0.07	0.26	0.31	0.18	0.00	0.25
Avail Cap(c_a), veh/h	541	0	700	358	735	613	727	729	608	621	0	737
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	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	28.8	0.0	31.1	23.0	19.0	18.6	12.7	15.7	16.0	12.4	0.0	14.8
Incr Delay (d2), s/veh	0.2	0.0	4.2	1.2	0.2	0.2	0.1	0.9	1.3	0.2	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	3.3	2.3	1.9	1.1	0.4	2.2	2.3	0.8	0.0	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.0	0.0	35.4	24.2	19.3	18.8	12.8	16.5	17.4	12.6	0.0	15.6
LnGrp LOS	C	A	D	C	B	B	B	B	B	B	A	B
Approach Vol, veh/h		210			408			422			272	
Approach Delay, s/veh		34.4			21.1			16.5			14.6	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2		4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.2	35.0		29.7	9.0	36.3	13.6	16.2
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	9.0	29.0		29.0	9.0	29.0	9.0	29.0
Max Q Clear Time (g_c+I1), s	4.3	8.4		6.5	3.0	6.9	7.5	9.2
Green Ext Time (p_c), s	0.1	1.6		1.1	0.0	0.9	0.1	1.0

Intersection Summary			
HCM 6th Ctrl Delay		20.4	
HCM 6th LOS		C	

Intersection	
Int Delay, s/veh	0.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↱			↰	Y	
Traffic Vol, veh/h	339	41	9	342	26	6
Future Vol, veh/h	339	41	9	342	26	6
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	368	45	10	372	28	7

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	413	0	783	391
Stage 1	-	-	-	-	391	-
Stage 2	-	-	-	-	392	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1146	-	362	658
Stage 1	-	-	-	-	683	-
Stage 2	-	-	-	-	683	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1146	-	358	658
Mov Cap-2 Maneuver	-	-	-	-	358	-
Stage 1	-	-	-	-	683	-
Stage 2	-	-	-	-	675	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	15.1
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	391	-	-	1146	-
HCM Lane V/C Ratio	0.089	-	-	0.009	-
HCM Control Delay (s)	15.1	-	-	8.2	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.3	-	-	0	-

Intersection	
Int Delay, s/veh	0.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	325	20	18	338	13	12
Future Vol, veh/h	325	20	18	338	13	12
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	353	22	20	367	14	13

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	375	0	771	364
Stage 1	-	-	-	-	364	-
Stage 2	-	-	-	-	407	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1183	-	368	681
Stage 1	-	-	-	-	703	-
Stage 2	-	-	-	-	672	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1183	-	360	681
Mov Cap-2 Maneuver	-	-	-	-	360	-
Stage 1	-	-	-	-	703	-
Stage 2	-	-	-	-	658	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	13.2
HCM LOS			B

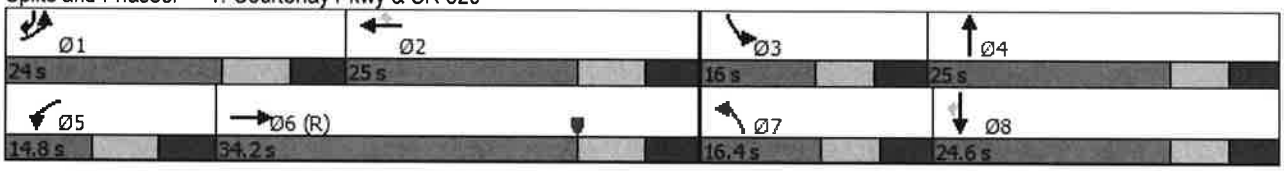
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	465	-	-	1183	-
HCM Lane V/C Ratio	0.058	-	-	0.017	-
HCM Control Delay (s)	13.2	-	-	8.1	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0.1	-

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	470	805	125	522	144	216	514	233	457	417
Future Volume (vph)	470	805	125	522	144	216	514	233	457	417
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA	pm+ov
Protected Phases	1	6	5	2		7	4	3	8	1
Permitted Phases					2					8
Detector Phase	1	6	5	2	2	7	4	3	8	1
Switch Phase										
Minimum Initial (s)	6.0	15.0	6.0	15.0	15.0	6.0	8.0	6.0	8.0	6.0
Minimum Split (s)	14.7	23.7	14.7	23.7	23.7	13.9	18.6	13.9	18.6	14.7
Total Split (s)	24.0	34.2	14.8	25.0	25.0	16.4	25.0	16.0	24.6	24.0
Total Split (%)	26.7%	38.0%	16.4%	27.8%	27.8%	18.2%	27.8%	17.8%	27.3%	26.7%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.1	4.1	4.1	4.1	4.8
All-Red Time (s)	3.9	3.9	3.9	3.9	3.9	3.8	3.8	3.8	3.8	3.9
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)	8.7	8.7	8.7	8.7	8.7	7.9	7.9	7.9	7.9	8.7
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	Max	Max	None	None	None	None	None

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 6:EBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 1: Courtenay Pkwy & SR 520



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	470	805	213	125	522	144	216	514	71	233	457	417
Future Volume (veh/h)	470	805	213	125	522	144	216	514	71	233	457	417
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1856	1841	1885	1841	1870	1870	1885	1870	1870	1870	1870
Adj Flow Rate, veh/h	495	847	224	132	549	152	227	541	75	245	481	439
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	3	4	1	4	2	2	1	2	2	2	2
Cap, veh/h	566	1132	297	224	923	291	301	601	83	311	686	995
Arrive On Green	0.16	0.28	0.28	0.06	0.18	0.18	0.09	0.19	0.19	0.09	0.19	0.19
Sat Flow, veh/h	3456	3994	1050	3483	5025	1585	3456	3161	437	3456	3554	2790
Grp Volume(v), veh/h	495	715	356	132	549	152	227	306	310	245	481	439
Grp Sat Flow(s),veh/h/ln	1728	1689	1667	1742	1675	1585	1728	1791	1807	1728	1777	1395
Q Serve(g_s), s	12.6	17.3	17.5	3.3	9.0	7.8	5.8	15.0	15.1	6.2	11.4	10.8
Cycle Q Clear(g_c), s	12.6	17.3	17.5	3.3	9.0	7.8	5.8	15.0	15.1	6.2	11.4	10.8
Prop In Lane	1.00		0.63	1.00		1.00	1.00		0.24	1.00		1.00
Lane Grp Cap(c), veh/h	566	957	472	224	923	291	301	340	343	311	686	995
V/C Ratio(X)	0.87	0.75	0.75	0.59	0.59	0.52	0.75	0.90	0.90	0.79	0.70	0.44
Avail Cap(c_a), veh/h	587	957	472	236	923	291	326	340	343	311	686	995
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	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.96	0.96	0.96	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.7	29.3	29.4	41.0	33.7	33.2	40.1	35.6	35.6	40.1	33.9	22.1
Incr Delay (d2), s/veh	13.5	5.3	10.6	3.4	2.7	6.3	8.9	25.4	26.1	12.7	3.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.1	7.2	7.9	1.5	3.7	3.4	2.8	8.7	8.9	3.1	5.1	3.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.2	34.6	40.0	44.3	36.4	39.5	49.0	61.0	61.7	52.8	37.1	22.4
LnGrp LOS	D	C	D	D	D	D	D	E	E	D	D	C
Approach Vol, veh/h		1566			833			843			1165	
Approach Delay, s/veh		40.8			38.2			58.0			34.9	
Approach LOS		D			D			E			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.4	25.2	16.0	25.0	14.5	34.2	15.7	25.3
Change Period (Y+Rc), s	* 8.7	* 8.7	* 7.9	* 7.9	* 8.7	* 8.7	* 7.9	* 7.9
Max Green Setting (Gmax), s	* 15	* 16	* 8.1	* 17	* 6.1	* 26	* 8.5	* 17
Max Q Clear Time (g_c+I1), s	14.6	11.0	8.2	17.1	5.3	19.5	7.8	13.4
Green Ext Time (p_c), s	0.2	1.8	0.0	0.0	0.0	3.2	0.1	1.6

Intersection Summary	
HCM 6th Ctrl Delay	42.0
HCM 6th LOS	D

Notes

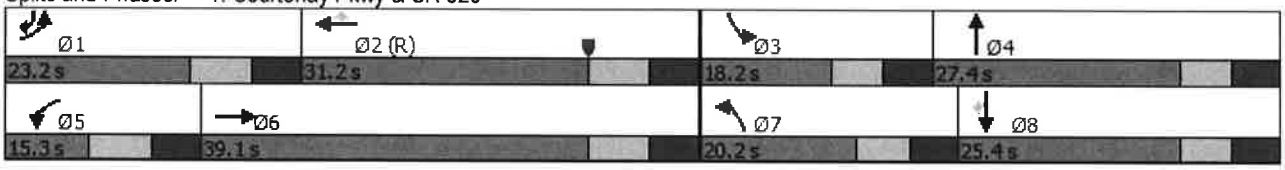
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	464	889	140	949	288	364	578	317	548	504
Future Volume (vph)	464	889	140	949	288	364	578	317	548	504
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA	pm+ov
Protected Phases	1	6	5	2		7	4	3	8	1
Permitted Phases					2					8
Detector Phase	1	6	5	2	2	7	4	3	8	1
Switch Phase										
Minimum Initial (s)	6.0	15.0	6.0	15.0	15.0	6.0	8.0	6.0	8.0	6.0
Minimum Split (s)	14.7	23.7	14.7	23.7	23.7	13.9	15.9	13.9	15.9	14.7
Total Split (s)	23.2	39.1	15.3	31.2	31.2	20.2	27.4	18.2	25.4	23.2
Total Split (%)	23.2%	39.1%	15.3%	31.2%	31.2%	20.2%	27.4%	18.2%	25.4%	23.2%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.1	4.1	4.1	4.1	4.8
All-Red Time (s)	3.9	3.9	3.9	3.9	3.9	3.8	3.8	3.8	3.8	3.9
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)	8.7	8.7	8.7	8.7	8.7	7.9	7.9	7.9	7.9	8.7
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	C-Min	C-Min	None	None	None	None	None

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:WBT, Start of Yellow
Natural Cycle: 100
Control Type: Actuated-Coordinated

Splits and Phases: 1: Courtenay Pkwy & SR 520



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	464	889	165	140	949	288	364	578	72	317	548	504
Future Volume (veh/h)	464	889	165	140	949	288	364	578	72	317	548	504
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1885	1885	1885	1870	1885	1870	1870	1900	1900	1900	1885
Adj Flow Rate, veh/h	494	946	176	149	1010	306	387	615	77	337	583	536
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	1	1	1	2	1	2	2	0	0	0	1
Cap, veh/h	509	1347	250	213	1149	359	425	620	77	362	632	900
Arrive On Green	0.15	0.31	0.31	0.06	0.22	0.22	0.12	0.19	0.19	0.10	0.17	0.17
Sat Flow, veh/h	3510	4362	809	3483	5106	1598	3456	3178	397	3510	3610	2812
Grp Volume(v), veh/h	494	743	379	149	1010	306	387	343	349	337	583	536
Grp Sat Flow(s),veh/h/ln	1755	1716	1740	1742	1702	1598	1728	1777	1799	1755	1805	1406
Q Serve(g_s), s	14.0	19.1	19.2	4.2	19.1	18.4	11.1	19.3	19.4	9.5	15.9	16.0
Cycle Q Clear(g_c), s	14.0	19.1	19.2	4.2	19.1	18.4	11.1	19.3	19.4	9.5	15.9	16.0
Prop In Lane	1.00		0.46	1.00		1.00	1.00		0.22	1.00		1.00
Lane Grp Cap(c), veh/h	509	1060	537	213	1149	359	425	346	351	362	632	900
V/C Ratio(X)	0.97	0.70	0.70	0.70	0.88	0.85	0.91	0.99	0.99	0.93	0.92	0.60
Avail Cap(c_a), veh/h	509	1060	537	230	1149	359	425	346	351	362	632	900
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	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.80	0.80	0.80	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.5	30.5	30.5	46.0	37.4	37.1	43.3	40.2	40.2	44.5	40.6	28.6
Incr Delay (d2), s/veh	32.3	2.1	4.2	6.7	8.0	18.1	23.4	45.8	46.4	30.5	19.3	1.1
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	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.1	7.7	8.2	2.0	8.4	8.8	6.0	12.6	12.8	5.6	8.6	5.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	74.8	32.6	34.7	52.8	45.4	55.2	66.7	85.9	86.6	75.0	59.8	29.6
LnGrp LOS	E	C	C	D	D	E	E	F	F	E	E	C
Approach Vol, veh/h		1616			1465			1079			1456	
Approach Delay, s/veh		46.0			48.2			79.2			52.2	
Approach LOS		D			D			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.2	31.2	18.2	27.4	14.8	39.6	20.2	25.4
Change Period (Y+Rc), s	* 8.7	* 8.7	* 7.9	* 7.9	* 8.7	* 8.7	* 7.9	* 7.9
Max Green Setting (Gmax), s	* 15	* 23	* 10	* 20	* 6.6	* 30	* 12	* 18
Max Q Clear Time (g_c+I1), s	16.0	21.1	11.5	21.4	6.2	21.2	13.1	18.0
Green Ext Time (p_c), s	0.0	1.0	0.0	0.0	0.0	4.5	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	54.6
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

APPENDIX I
ITE Excerpts

Land Use: 221
Multifamily Housing (Mid-Rise)

Description

Mid-rise multifamily housing includes apartments and condominiums located in a building that has between four and 10 floors of living space. Access to individual dwelling units is through an outside building entrance, a lobby, elevator, and a set of hallways.

Multifamily housing (low-rise) (Land Use 220), multifamily housing (high-rise) (Land Use 222), off-campus student apartment (mid-rise) (Land Use 226), and mid-rise residential with ground-floor commercial (Land Use 231) are related land uses.

Land Use Subcategory

Data are presented for two subcategories for this land use: (1) not close to rail transit and (2) close to rail transit. A site is considered close to rail transit if the walking distance between the residential site entrance and the closest rail transit station entrance is ½ mile or less.

Additional Data

For the six sites for which both the number of residents and the number of occupied dwelling units were available, there were an average of 2.5 residents per occupied dwelling unit.

For the five sites for which the numbers of both total dwelling units and occupied dwelling units were available, an average of 96 percent of the total dwelling units were occupied.

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

It is expected that the number of bedrooms and number of residents are likely correlated to the trips generated by a residential site. To assist in future analysis, trip generation studies of all multifamily housing should attempt to obtain information on occupancy rate and on the mix of residential unit sizes (i.e., number of units by number of bedrooms at the site complex).

The sites were surveyed in the 1990s, the 2000s, the 2010s, and the 2020s in Alberta (CAN), California, District of Columbia, Florida, Georgia, Illinois, Maryland, Massachusetts, Minnesota, Montana, New Jersey, New York, Ontario (CAN), Oregon, Utah, and Virginia.

Source Numbers

168, 188, 204, 305, 306, 321, 818, 857, 862, 866, 901, 904, 910, 949, 951, 959, 963, 964, 966, 967, 969, 970, 1004, 1014, 1022, 1023, 1025, 1031, 1032, 1035, 1047, 1056, 1057, 1058, 1071, 1076

Multifamily Housing (Mid-Rise)
Not Close to Rail Transit (221)

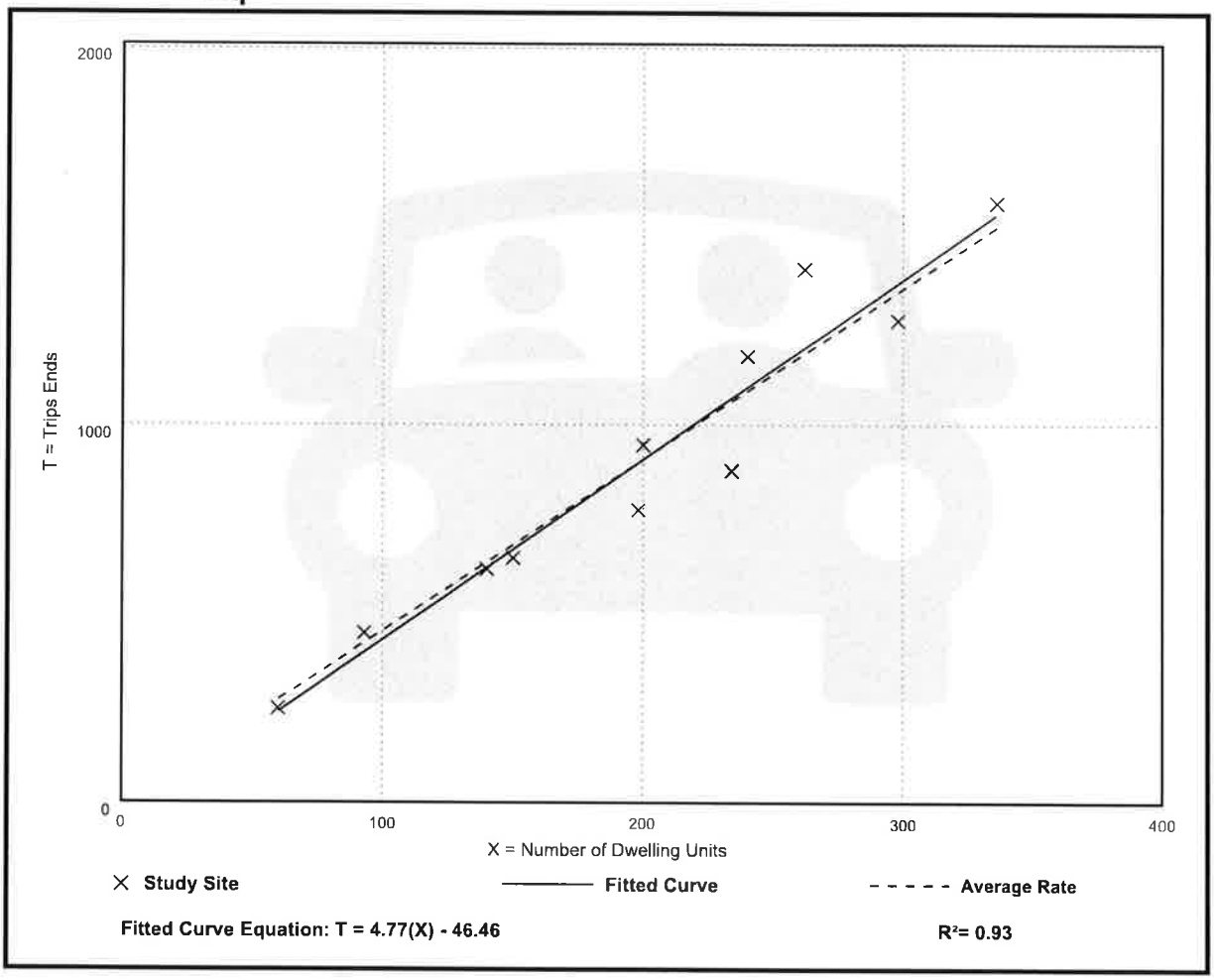
Vehicle Trip Ends vs: Dwelling Units
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 11
Avg. Num. of Dwelling Units: 201
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
4.54	3.76 - 5.40	0.51

Data Plot and Equation



Fitted Curve Equation: T = 4.77(X) - 46.46

R^2= 0.93

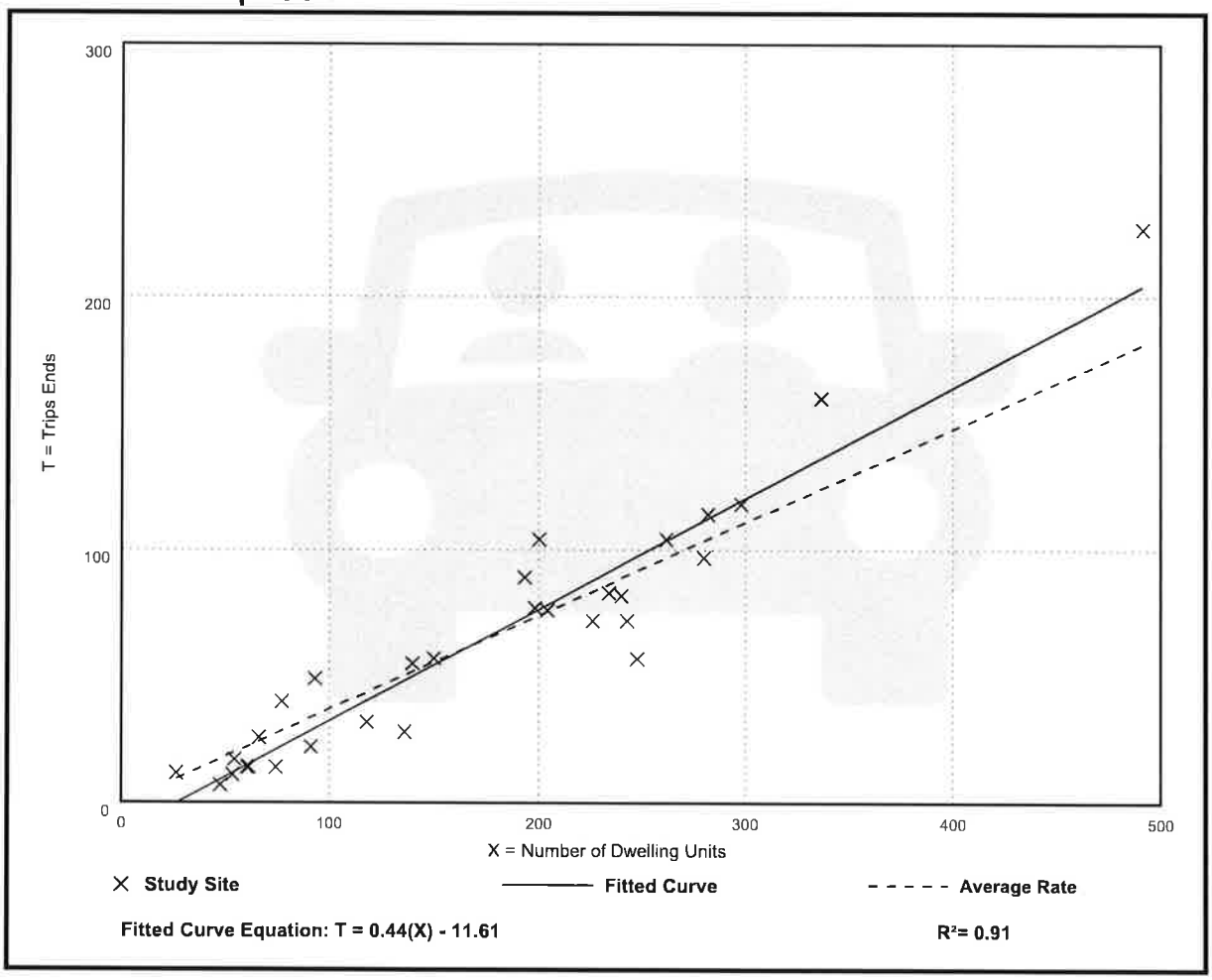
Multifamily Housing (Mid-Rise)
Not Close to Rail Transit (221)

Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: General Urban/Suburban
Number of Studies: 30
Avg. Num. of Dwelling Units: 173
Directional Distribution: 23% entering, 77% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.37	0.15 - 0.53	0.09

Data Plot and Equation



Fitted Curve Equation: T = 0.44(X) - 11.61

R^2= 0.91

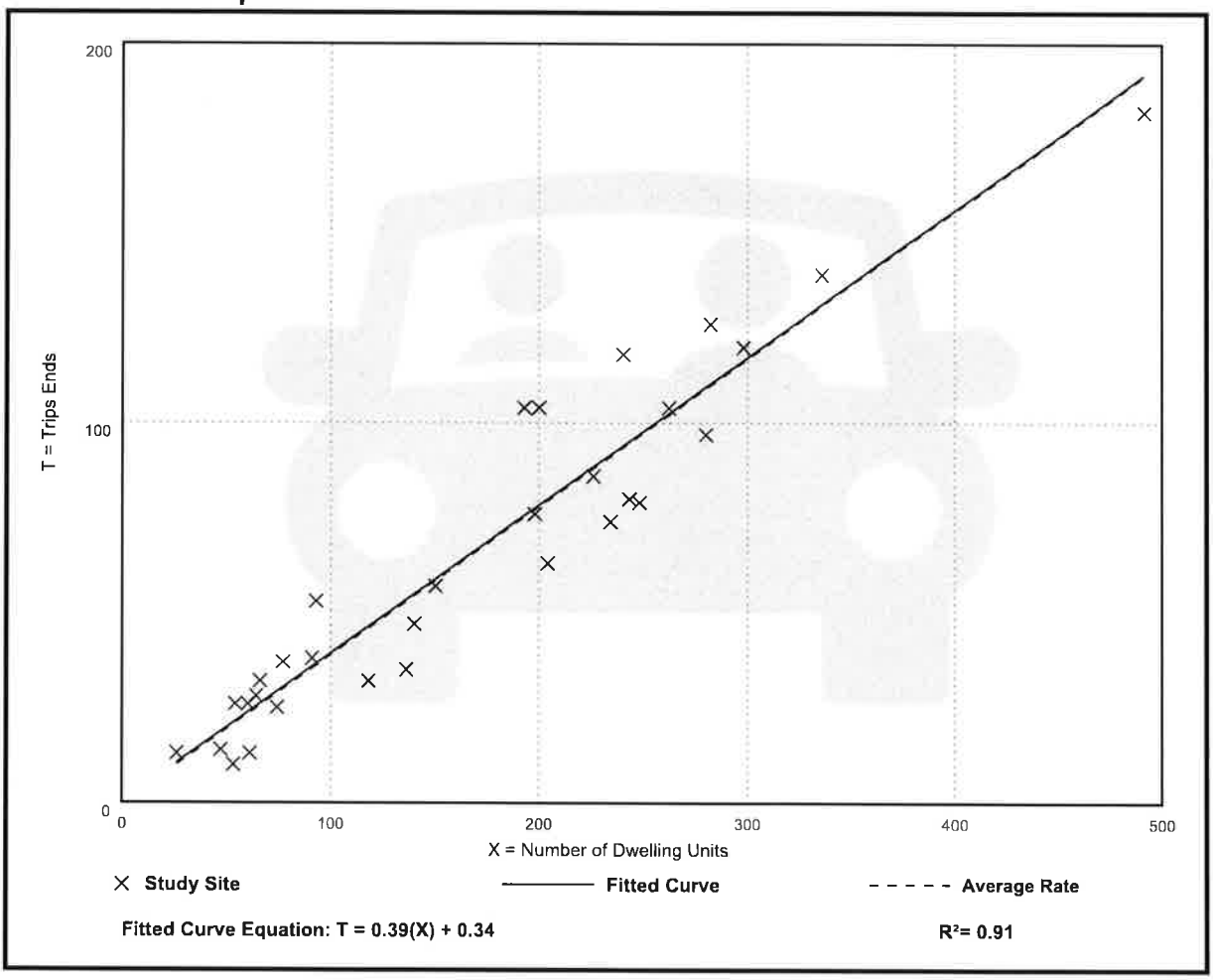
Multifamily Housing (Mid-Rise)
Not Close to Rail Transit (221)

Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
Number of Studies: 31
Avg. Num. of Dwelling Units: 169
Directional Distribution: 61% entering, 39% exiting

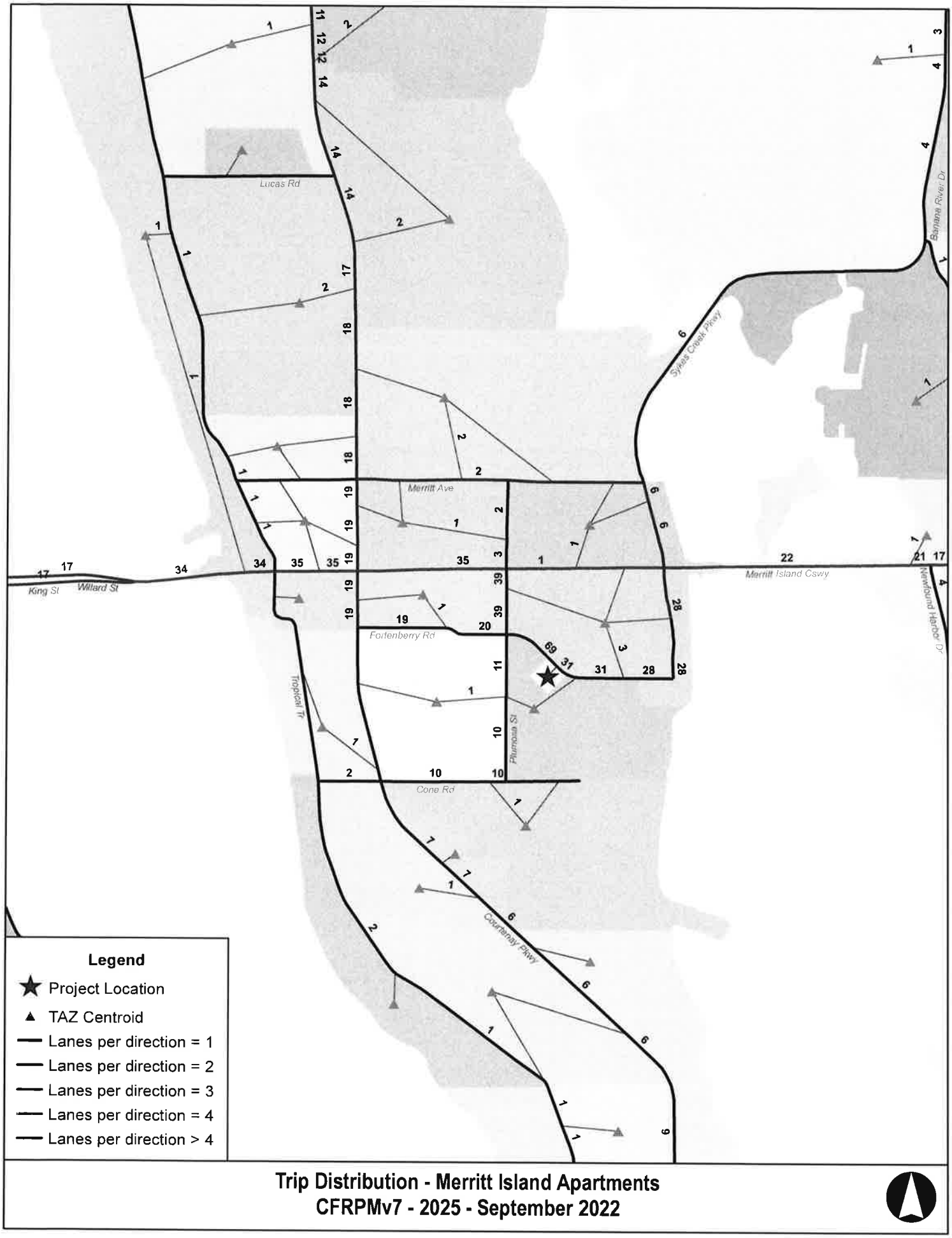
Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.39	0.19 - 0.57	0.08

Data Plot and Equation



APPENDIX J
CFRPM Model Plot



Trip Distribution - Merritt Island Apartments
CFRPMv7 - 2025 - September 2022

APPENDIX K
NCHRP Warrant Worksheets

Intersection #6
AM Peak Hour

Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

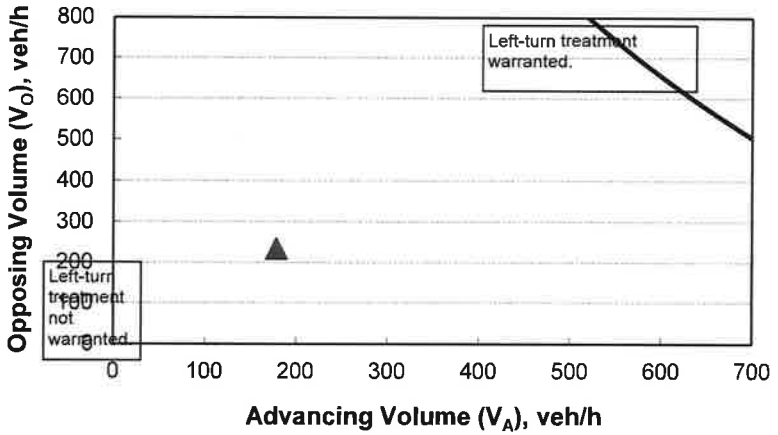
2-lane roadway (English)

INPUT

Variable	Value
85th percentile speed, mph:	35
Percent of left-turns in advancing volume (V_A), %:	2%
Advancing volume (V_A), veh/h:	179
Opposing volume (V_O), veh/h:	234

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	935
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Intersection #6
PM Peak Hour

Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

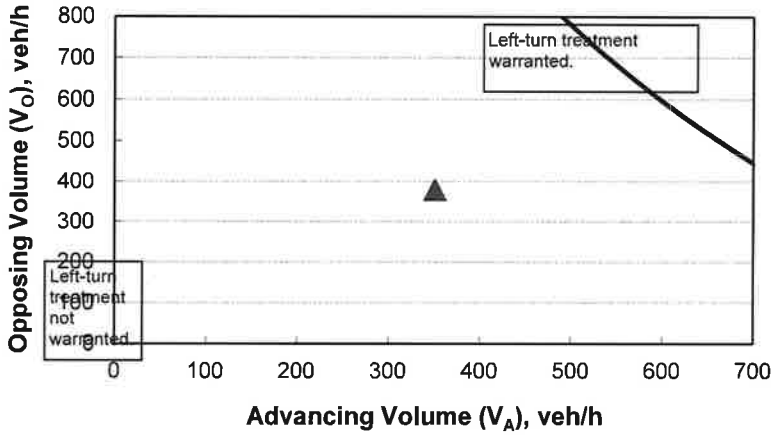
2-lane roadway (English)

INPUT

Variable	Value
85th percentile speed, mph:	35
Percent of left-turns in advancing volume (V_A), %:	3%
Advancing volume (V_A), veh/h:	351
Opposing volume (V_O), veh/h:	380

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	751
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Intersection #6
AM Peak Hour

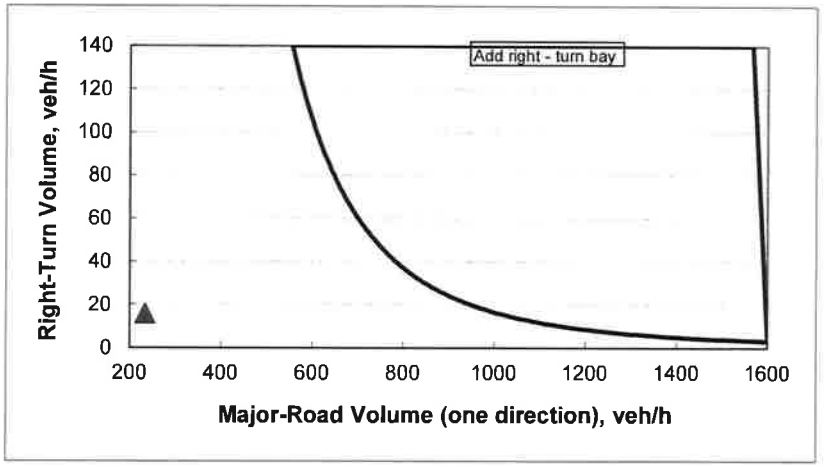
Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

INPUT

Roadway geometry:	2-lane roadway
Variable	Value
Major-road speed, mph:	35
Major-road volume (one direction), veh/h:	234
Right-turn volume, veh/h:	16

OUTPUT

Variable	Value
Limiting right-turn volume, veh/h:	3250
Guidance for determining the need for a major-road right-turn bay for a 2-lane roadway:	
Do NOT add right-turn bay.	



Intersection #6
PM Peak Hour

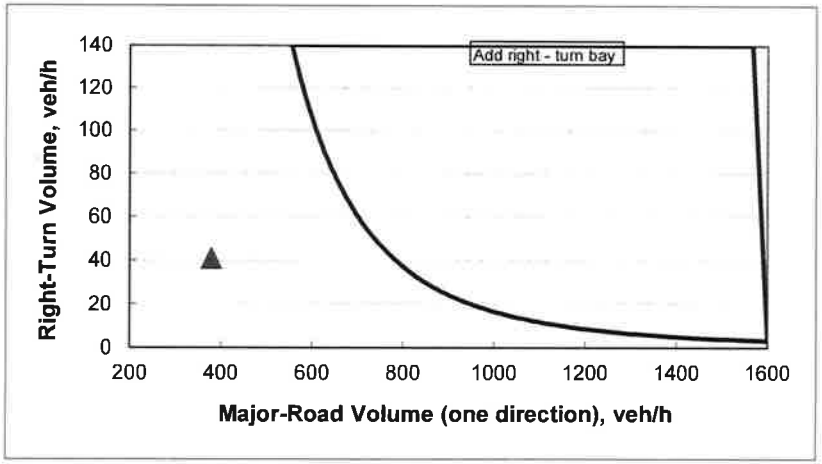
Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

INPUT

Roadway geometry:	2-lane roadway
Variable	Value
Major-road speed, mph:	35
Major-road volume (one direction), veh/h:	380
Right-turn volume, veh/h:	41

OUTPUT

Variable	Value
Limiting right-turn volume, veh/h:	557
Guidance for determining the need for a major-road right-turn bay for a 2-lane roadway:	
Do NOT add right-turn bay.	



Intersection #7
AM Peak Hour

Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

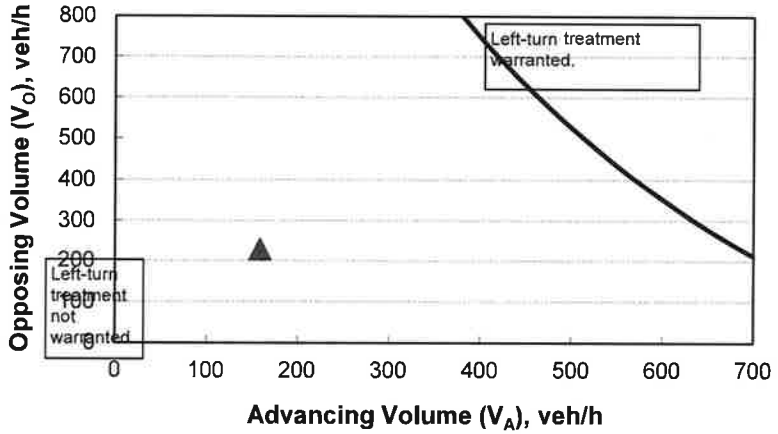
2-lane roadway (English)

INPUT

Variable	Value
85th percentile speed, mph:	35
Percent of left-turns in advancing volume (V_A), %:	4%
Advancing volume (V_A), veh/h:	159
Opposing volume (V_O), veh/h:	229

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	687
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Intersection #7
PM Peak Hour

Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

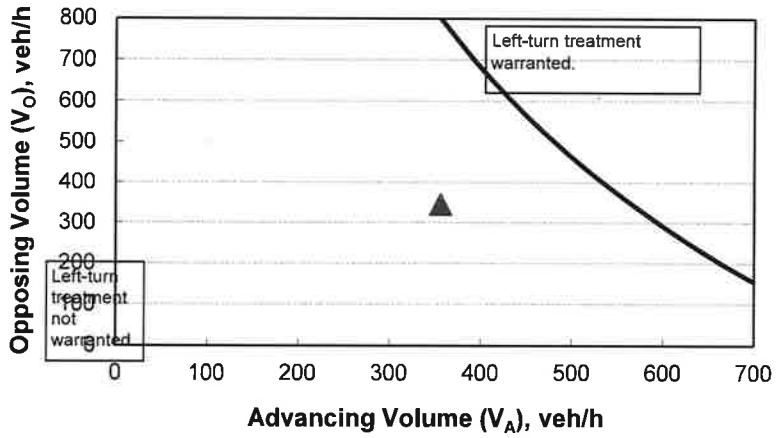
2-lane roadway (English)

INPUT

Variable	Value
85th percentile speed, mph:	35
Percent of left-turns in advancing volume (V_A), %:	5%
Advancing volume (V_A), veh/h:	356
Opposing volume (V_O), veh/h:	345

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	566
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Intersection #7
AM Peak Hour

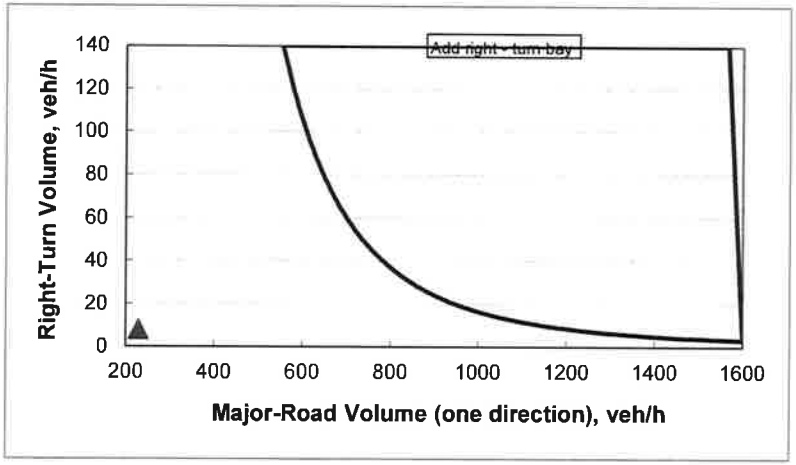
Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

INPUT

Roadway geometry:	2-lane roadway
Variable	Value
Major-road speed, mph:	35
Major-road volume (one direction), veh/h:	229
Right-turn volume, veh/h:	8

OUTPUT

Variable	Value
Limiting right-turn volume, veh/h:	3516
Guidance for determining the need for a major-road right-turn bay for a 2-lane roadway:	
Do NOT add right-turn bay.	



Intersection #7
PM Peak Hour

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:	2-lane roadway
Variable	Value
Major-road speed, mph:	35
Major-road volume (one direction), veh/h:	345
Right-turn volume, veh/h:	20

OUTPUT

Variable	Value
Limiting right-turn volume, veh/h:	792
Guidance for determining the need for a major-road right-turn bay for a 2-lane roadway:	
Do NOT add right-turn bay.	

