Alan Mayberry Tree Consulting

Tree Inventory 405 Coronado Drive Clearwater Beach, Florida

February 9, 2025

Prepared For: Wojciech Osiak, Manager AP Beach Properties LLC 648 Poinsettia Avenue Clearwater Fl, 33767

Prepared By: Alan Mayberry, Consulting Arborist ISA Certified Arborist #SO-0305

Signed: <u>Alan Mayberry</u>

The following report is submitted by Alan Mayberry, Consulting Arborist, and includes findings I believe are accurate based on my education, experience, and knowledge in the field of Arboriculture. My findings are based on scientific research in the field of Arboriculture. In addition, my findings are based on personal observations of over 37 years of experience in the broad field of Arboriculture. I have no interest personally or financially in this property and I believe my report is factual and unbiased.

Tree Inventory Overview

The City of Clearwater Code provides separate definitions for trees and palms as they have significant differences in their taxonomy. However, a good portion of the code simply uses the term "tree", referring to both trees and palms. For instance, when the code requires that a "Tree Inventory" or Tree Preservation Plan" be prepared as a condition of site plan submittal; it includes protected palm species. The code requires palms to be measured differently than trees. Trees are measured by trunk diameter and palms by height of clear trunk (CT). Trees are required to be tagged with sequenced numbered aluminum tags that are nailed to the trunk, but city policy does not permit palms to be tagged with nailed aluminum tags due to the staining of the trunk that results. The subject site, 405 Coronado Drive had no tree species, only palms. Moreover, all of the off-site "trees" were palms. Consequently, to avoid confusion, in this "tree inventory", the word tree, shall also mean palm.

The following tree inventory provides an overall condition rating for all site trees and palms protected by the provisions of the City of Clearwater code. The overall condition ratings range from 0 (a dead tree) to 6 (a specimen quality tree). Increments of 0.5 are used for accuracy. A tree rated 3.0 is an average tree that has sufficient health and structure to warrant consideration

for preservation. A tree rated 2.5 is slightly below average but may improve with minor remedial maintenance if noted in the tree inventory. Trees that are rated 2.0 or less are recommended for removal and the City of Clearwater generally requires their removal as a condition of development. Trees rated 4.0 and above are high quality trees with good health and structural attributes. The tree inventory includes specific arboricultural terminology in the **Comment** section following each tree rated 2.5 or below. The **Notes** following the tree Inventory provide important information regarding recommendations made in the inventory. The **Tree Data Section** that follows the notes provides a more thorough explanation of the rating system and how individual trees are scored and evaluated.

The tree inventory field work was conducted on February 8, 2025.

NOTE #1: In the following tree inventory, tree size references the trunk diameter of a tree **in inches**, measured at 4.5' above grade unless the tree forks below that point; then the diameter is measured at the narrowest area between grade and the fork. Palm species are measured in feet of clear trunk, the distance in feet from grade to where the first live frond emanates from the trunk and is noted as **CT**.

NOTE #2: All Category One and Two invasive exotic species (as listed in the 2019 Florida Exotic Pest Plant Council's list) listed in this inventory are rated based on their health and structure. However, Category One and Two invasive exotic species may be required to be removed by the city. Check with the City's Land Resource Specialist for the current policy if preservation is desired.

NOTE #3: Trees/palms located off-site and within 25' of the property lines for this site are included in the tree inventory to meet the City of Clearwater's code provision requiring all trees and palms located within 25' of the property lines to be shown in the tree inventory and located on the site plan. Off-site trees are located but not assessed due to the legal ramifications of assessing a tree without the property owner's permission or knowledge. **The exception was the palms located in planters in the right of way of Coronado Drive.**

Tree Inventory

Tree #	Size	Species	Rating
1.	8' C.T.	sabal palm <i>(Sabal palmetto)</i>	N/A

Comments: This palm has less than 10' of clear trunk and not a protected palm per City of Clearwater Code. This palm was included in the inventory as it was picked up by the surveyors.

2.11' C.T.sabal palm (Sabal palmetto)4.0

Comments: Recommend preservation.

NOTE #1: The site survey shows palms number 3&4, 5&6 and 7&8 as being one palm with a double trunk. The palms are single palms and are not grafted in any way to each other. Palms do

not graft as trees are able to. In addition, the bases of the palms are extending well into the sidewalk causing a pedestrian tripping hazard, consequently, they are being recommended for removal.

3.	12' C.T.	sabal palm (<i>Sabal palmetto</i>)	3.5
Comments: Se	e NOTE #1 abc	ove. Recommend removal.	
4.	13' C.T.	sabal palm (<i>Sabal palmetto</i>)	3.5
Comments: Se	e NOTE #1 abc	ove. Recommend removal.	
5.	12' C.T.	sabal palm (<i>Sabal palmetto</i>)	3.5
Comments: Se	e NOTE #1 abc	ove. Recommend removal.	
6.	13' C.T.	sabal palm (<i>Sabal palmetto</i>)	3.5
Comments: Se	e NOTE #1 abc	ove. Recommend removal.	
7.	15' C.T.	sabal palm (<i>Sabal palmetto</i>)	3.0
See NOTE #1 a	above. Recomm	nend removal.	
8.	13' C.T.	sabal palm (<i>Sabal palmetto</i>)	3.0
See NOTE #1 a	above. Recomm	nend removal.	
9.	9' C.T.	sabal palm (<i>Sabal palmetto</i>)	N/A

Comments: This palm has less than 10' of clear trunk and not a protected palm per City of Clearwater Code. This palm was included in the inventory as it was picked up by the surveyors.

NOTE: 2: The Mexican fan palm (*Washingtonia robusta*) is a Category Two Invasive Exotic species per the 2023 list of invasive plants published by the Florida Invasive Plant Council. Consequently, this palm is required to be removed as a condition of site plant approval.

10. 27' C.T. 2.0 Mexican fan palm (*Washingtonia robusta*) Comments: Category Two Invasive Exotic. See Note #2 above. Recommend removal. 25' C.T. 11. Mexican fan palm (*Washingtonia robusta*) 2.0 Comments: Category Two Invasive Exotic. See Note #2 above. Recommend removal. 30' C.T. 12. Mexican fan palm (*Washingtonia robusta*) 2.0 Comments: Category Two Invasive Exotic. See Note #2 above. Recommend removal. 12' C.T. 13. Mexican fan palm (*Washingtonia robusta*) 2.0 Comments: Category Two Invasive Exotic. See Note #2 above. Recommend removal.

14.	19' CT	sabal palm (<i>Sabal palmetto</i>)	4.0
Comments: Re	ecommend pre	servation and remove Ficus in crown.	
15.	14' C.T.	sabal palm (<i>Sabal palmetto</i>)	4.0
Comments: Re	ecommend pre	servation.	
16.	13' C.T.	sabal palm (<i>Sabal palmetto</i>)	4.5
Comments: C	omments: Reco	ommend preservation and remove Ficus in crown.	
17.	12' C.T.	sabal palm (<i>Sabal palmetto</i>)	4.0
Comments: Re	ecommend pre	servation.	
18.	15' C.T.	sabal palm (<i>Sabal palmetto</i>)	4.0
Comments: Re	ecommend pre	servation.	
19.	8' C.T. sabal p	oalm (<i>Sabal palmetto</i>)	N/A
Comments: Tl Clearwater Co	his palm has le de. This palm v	ess than 10' of clear trunk and not a protected particles included in the inventory as it was picked up by	alm per City of the surveyors.
20.	26' C.T.	Mexican fan palm (Washingtonia robusta)	2.0
Comments: Ca	ategory Two Inv	vasive Exotic. See Note #2 above. Recommend remo	val.
21.	12' C.T.	sabal palm (<i>Sabal palmetto</i>)	4.0

Comments: recommend preservation.

Off Site Palms

NOTE:#3: Palms 22-32 are located off-site but are included in the tree inventory as they are within 25' of the perimeter of the property lines for this site and City of Clearwater code requires trees/palms within 25' to be inventoried. Tree #22 was on private property to the south. Trees #23 -32 are located in planters within the right of way of Coronado Drive and are rated in case they are to be included into the landscape for this project.

22.	15' CT	sabal palm (Sabal palmetto)	N/A
23.	13' CT	sabal palm (Sabal palmetto)	4.0
24.	12' CT	sabal palm (Sabal palmetto)	4.5
25.	12' CT	sabal palm (Sabal palmetto)	4.5
26.	11' CT	sabal palm (<i>Sabal palmetto</i>)	5.0

27.	10' CT	sabal palm (<i>Sabal palmetto</i>)	4.0
28.	12' CT	sabal palm (<i>Sabal palmetto</i>)	4.5
29.	11' CT	sabal palm (<i>Sabal palmetto</i>)	4.5
30.	11' CT	sabal palm (<i>Sabal palmetto</i>)	4.5
31.	11' CT	sabal palm (<i>Sabal palmetto</i>)	4.0
32.	11' CT	sabal palm (<i>Sabal palmetto</i>)	4.0

This concludes the tree inventory.

NOTES

NOTE: A tree inventory is typically valid for 3-5 years. However, events such as drought, lightning, mechanical root damage, freeze, improper maintenance, and severe storms can downgrade the rated value of a tree. Conversely, remedial maintenance can upgrade the value. If you suspect that a tree has been adversely affected, have the tree inspected by a qualified International Society of Arboriculture (ISA) Certified Arborist.

NOTE: Any references in the following tree inventory recommending tree pruning should only be performed by International Society of Arboriculture (ISA) Certified Arborists skilled in pruning to the standards defined in the American National Standards Institute (ANSI) publication, *ANSI-A300 Part 1: Tree, Shrub and Other Woody Plant Maintenance – standards Practices, Pruning* and the International Society of Arboriculture's companion publication: Best Management Practices, Tree Pruning (Revised 2008).

Tree Inventory Data

Tree Rating System

A tree inventory is a record of a tree's condition at the time of inspection. It is a valuable tool to identify trees that have sufficient health and structure to warrant preservation considerations or identify trees with health and/or structural issues that could lead to failure and cause personal injury or property damage. The tree inventory can also be useful in prescribing maintenance needs of individual trees. The tree inventory data includes the tree number, trunk diameter, tree species, and overall condition rating. It also includes a comment section for the tree assessor to note information that supports a condition rating or identifies a defect that may not be obvious.

The overall condition rating is the result of the tree assessor's valuation of a tree's health, structure, species characteristics, and to a lesser degree, aesthetic qualities. The tree assessor must evaluate trees with an eye on public safety as a tree inventory is typically performed for

trees that are on an existing site or that will be left on a site after site work. In any case, trees may be close to people, structures, or vehicles. The assessor should identify trees that will be an asset to a property and distinguish them from trees that pose a liability. Due to the connection saving trees will have on public safety; the tree assessor must possess a comprehensive knowledge of tree biology, tree biomechanics and tree species characteristics.

NOTE: In cases involving new construction, it is sometimes prudent to plant new trees that will not suffer construction impacts and will be able to acclimate to the new site characteristics.

The methodology for conducting this tree assessment is defined by the International Society of Arboriculture (ISA) as a Visual Tree Assessment (VTA). Trees are assessed by conducting a 360-degree visual observation of the foliage, twigs, secondary branches, major scaffold branches, trunk, and portions of the root system that are visible. Arboricultural diagnostic tools such as probes, rubber mallets for resonance testing and binoculars are used to increase accuracy.

The following is an explanation of the data used in the tree inventory.

Tree Inventory Data

<u>Tree# - location</u> - Each tree is assigned a tree identification number for reference in the inventory that corresponds with a number on the site plan that identifies the location of the tree in the field. In some cases, tree identification numbers may be GPS coordinates.

<u>Size</u> – Tree size is a measure of the tree's trunk diameter at 4.5' above grade. If the trunk forks at 4.5' above grade the diameter is measured at the narrowest trunk diameter between the fork and grade. Palm species are measured in trunk diameter or feet of clear trunk (C.T.), depending on local code requirements.

<u>Species</u> – Each tree is listed by its common and botanical name.

<u>Condition Rating</u> – The condition rating is an assessment of the tree's overall structure and systemic health.

Elements of structure include: 1) *soundness of the tree's wood:* presence of cavities; decay; fungal fruiting bodies; discolored wood; split, cracked; rubbing branches; bows; trunk seams; reaction wood; presence of tension wood/roots, etc., **2)** *branch arrangement and attachments:* well-spaced scaffold branches vs. clustered branches emanating from the same area on the trunk; codominant stems vs. single leader trunk; presence of a branch bark ridge in the branch union vs. included bark in the union; basal codominant association with adjacent trees. **3)** *root stability:* presence of root barriers; girdling roots; root decay; mounding; fill; lack of trunk flare; evidence of trenching or grubbing.

Elements of systemic health relate to the tree's overall energy system measured by net photosynthesis (food made) vs. respiration (food used). A tree with good systemic health will have a vascular system that moves water, nutrients and photosynthate within the tree as needed.

Indicators of a healthy systemic system used in the overall condition rating include: 1) *live crown ratio* (the percentage live crown a tree has relative to its height, 2) *crown density* (density of the foliage), 3) *tip growth* (foliated branch tips and shoot elongation), 4) lack of debilitating disease or insect attack.

The rating scale is 0-6 with 0 being a dead tree and 6 a specimen tree. Increments of 0.5 are used to increase accuracy. Examples of the tree rating system are as follows:

0- A dead tree.

1- A tree that has one or more of the following problems: tree is in severe decline (in a mortality spiral); tree has over 50% crown dieback; tree is deemed to be hazardous by the assessor; tree harbors a communicable debilitating disease; tree is designated by the State of Florida's Exotic Pest Plant Council as a category #1 or #2 invasive species e.g., Brazilian pepper tree (*Schinus terebinthifolius*). A tree with a rating of 1 should be removed as it is beyond treatment and is a threat to cause personal injury or property damage or is an invasive species.

2 – A tree that has one or more of the following problems: tree exhibits the structural defect of codominant stems with included bark in the unions when located in the trunk or large scaffold branches; tree is a basal codominant with an adjacent tree; tree has large cavities; tree has large areas of decayed wood; tree has torsional cracks, ribs, seams in the trunk; tree has pathogenic fungal fruiting structures e.g., conks, mushrooms, tree has cracked/split, rubbing scaffold branches; tree is uprooted; tree has 30% or greater crown dieback; tree has a live crown ratio less than 25%; tree has debilitating disease or insect problems; tree has severe nutritional deficiencies. A tree with a rating of 2 should be removed.

2.5 – A tree that has one or more of the following problems: tree has a thinning canopy with below average crown density; tree has 15% or greater crown dieback; tree has a suppressed canopy; tree has low crown density and poor form due to competition from adjacent trees; tree has a phototrophic lean without appropriate response growth; root barriers are present that adversely affect stability; tree has restricted branching; tree has acute doglegs in scaffold branches; tree has been severely lion-tailed; tree has multiple flush cuts; tree has been previously topped; tree with a codominant trunk that is becoming included in the union; tree has mistletoe infestation; tree is an exotic species with undesirable characteristics. A tree with a 2.5 rating is recommended for removal as trees in this classification have been downgraded due to health or structural conditions that will prevent them from being a viable element in the future landscape unless the assessor prescribes arboricultural treatments that will reverse the conditions and the property owner is committed to implementing the treatments. The treatments should be in accordance with industry standards (ISA) and the assessor should provide specific instructions for the treatments.

3- A tree with the following attributes: tree exhibits average crown density; tree has a live crown ratio of 45% or greater (30% for *Pinus* spp.); tree has foliated branch tips with less than 10%

branch dieback; Tree has a codominant trunk but has U-shaped unions with a branch bark ridge present in the union; tree has a phototrophic lean compensated with tension root development; root barriers are minor affecting less than 20% of the tree's root development; tree lacks debilitating disease or insect attack; tree has minor nutritional deficiencies; tree has minor wounds that are being mitigated by response growth; tree with average form. A tree rated a 3 has sufficient health, structure, and form to warrant preservation considerations.

4- A tree with the following attributes: tree has above average crown density; tree has a live crown ratio of 55% or greater; branch tips are foliated with less than 5% tip dieback; tree is free of debilitating disease or insect problems; trunk develops a codominant, but unions are U-shaped with a branch bark ridge present; wounds are closed or in the process of closure; scaffold branches and primary branches have strong attachments; root barriers are minor affecting less than 15% of the tree's root development; tree has a balanced crown with few irregularities. A tree with a rating of 4 is valuable to the property and should be preserved if possible.

5 – A tree with the following attributes: tree has high crown density indicating stored energy reserves; tree has branch tips exhibiting vigorous shoot growth; tree has a live crown ratio of 65% or greater, tree has single leader structure - live oak (*Quercus virginiana*) trees can have codominant structure if branch angles are wide and free of included bark; tree has well-spaced scaffold branches; tree is free of debilitating disease or insect problems; tree lacks nutritional deficiencies; root barriers are minor affecting less than 5% of the tree's root development; tree has a crown that is symmetrical and full imparting high aesthetic amenities. A tree in this category should be of a species that possesses characteristics inherent to longevity and should be a strong compartmentalizing species. A tree with a #5 rating lends considerable value to the site and is worthy of site plan modification considerations to achieve preservation.

6 – **A specimen tree.** A specimen tree possesses a combination of superior qualities regarding systemic health, structural integrity, and form surpassing the attributes of a tree rated a 5. A specimen tree may also have unique qualities regarding its size, species, age, or form. A great effort should be made to preserve a specimen tree including shifting structures that would adversely impact the tree. A specimen tree should have a minimum undisturbed rooting area equal to a one-foot radius from the trunk for each inch of trunk diameter measured at 4.5' above grade. All work performed on a specimen tree should only be performed by an International Society of Arboriculture (I.S.A.) Certified Arborist with references of previous tree maintenance.

<u>Comments</u>: The comment section serves to note observations relative to the tree but not covered in the inventory data or expands on information in the inventory data. It may include maintenance recommendations to improve the tree's overall condition rating and may also have **recommendations** on whether to remove or preserve a tree.

405 Coronado TRAFFIC IMPACT STUDY

Clearwater, Florida

Prepared By: Elizabeth Rodriguez & Associates

July 2024

1.0 INTRODUCTION

The 405 Coronado Project is a proposed hotel and commercial development. As is shown on the **Site Plan (Appendix A)** and **Location Map** on the following page, the 405 Coronado project is located at 405 Coronado Drive in Clearwater, Florida.

This is an update of the original traffic study for this project.



LOCATION MAP



Page 3

2.0 TRIP GENERATION

Table 1 below, depicts the estimated trips using the ITE "Trip Generation" Manual, 11th Edition More detailed trip generation information is included in **Appendix A** of this report.

Note that this is "worst case" land use. Fewer square feet/hotel rooms may ultimately be constructed, but the numbers of units being studied will not be exceeded. Note also that this is a worst case analysis because internal and pass by trip capture are not being subtracted. In reality, there would be significant internal trip capture. Hotel patrons would use the restaurant and shops and generate no new trips. In addition, there would be pedestrian modal split and these trips are not being subtracted so as to conduct a worst case analysis.

ITE Code	Land Use Type	SF	Daily Trips	AM Peak- Hour Trips In	AM Peak- Hour Trips Out	PM Peak- Hour Trips In	PM Peak- Hour Trips Out
932	High-Turnover (Sit-Down) Restaurant	6,825	732	36	29	38	24
822	Strip Retail Plaza	20,000	1,089	28	19	66	66
310	Hotel	135	1,079	35	27	41	39
	TOTAL	_	2,900	99	75	145	129

TABLE 1: Proposed Trip Generation

3.0 DISTRIBUTION/ASSIGNMENT

Updated project traffic distribution and assignment and study area are illustrated on the following page.



4.0 BACKGROUND TRAFFIC

Background traffic (**Appendix B**) was taken from the original traffic study for this project and the year 2029 buildout date was maintained. **Intersection Tables (Appendix C**) depict the traffic counts; historic growth calculations; vested trips; and project traffic, summed to develop total traffic.

Vested traffic is the project traffic from the following vested projects:

- Alanik Hotel
- Hiatus/Beachwalk Hotel

The project traffic diagrams for these two projects are included in **Appendix C.** There is a line item for each vested project in the **Intersection Tables** in **Appendix C**. The **Intersection Tables** show how the background, vested, and project trips are "layered" together to develop total traffic.

5.0 LOS ANALYSIS

The **Intersection Tables** (**Appendix C**) illustrate how the background, vested, and project traffic are compiled. SYNCHRO analysis for the with and without project traffic conditions were compiled and are included in **Table 2**, below. The SYNCHRO output is included in **Appendix D**. In the link LOS analysis table, Table 3, the project traffic and background traffic (background plus vested from the two aforementioned vested hotels) is derived from the **Intersection Tables** in **Appendix C**.

Intersection	V/c/LOS/Delay (Sec.) Without Project	V/c/LOS/Delay (Sec.) With Project	Improvements
Coronado Drive/Fifth Street	NBL-A/o; EBL-E/38/5; WBL-B/14.8; SBL- A/8.4	NBL-A/8.6; EBL- F/255.2*; WBL-C/18.6; SBL-A/9.3	-
Coronado Drive/Gulfview Drive	A/6.9	A/8.1	-
Project Driveway	-	WBL-A/7.7	-
Hamden Drive/Bayside Drive	WBL-A/9.5; SBL-A/7.5	WBL-A/9.6; SBL-A/7.5	-
Hamden Drive/Coronado Drive	NBL-A/0; EBL-B/12.9	NBL-A/9.1; EBL-E/40.0	-
Hamden Drive/Fifth Street	NBL-A/7.4; EBL-A/9.7	NBL-A/7.4; EBL-A/9.7	-

 TABLE 2 - Peak Hour Intersection LOS
 Image: Control of the section of the sectio

*This movement includes zero (o) trips of project traffic, but includes project traffic from the two other vested hotels.

Link	Proj Traf	LOS D MSFR	Backg'nd Traffic	LOS	Total Traffic	LOS
S. Gulfview (E. of Bayway)	126	1970	1302	C or Better	1428	C or Better
S. Gulfview (Byway- Hamden)	126	2190	1620	D	1746	D
S. Gulfview (Hamden-5 th)	0	1330	999	C or Better	999	C or Better
S. Gulfview (5 th - Coronado)	58	1330	421	C or Better	479	C or Better
Hamden (S. Gulfview-Coronado)	126	1390	986	D	1112	D
Coronado (Hamden- 5 th)	0	1390	1074	C or Better	1074	C or Better
Coronado (5 th -3 rd)	164	1390	1109	C or Better	1273	C or Better
Coronado (3 rd - S. Gulfview)	164	2190	1164	C or Better	1328	C or Better
Coronado (Gulfview- Roundabout)	126	2900	2512	D	2638	D
Hamden (Coronado- Bayside)	126	930	132	C or Better	258	C or Better
Hamden (Bayside- 5 th)	124	930	159	C or Better	285	C or Better
Hamden (5 th - Brightwater)	0	930	221	C or Better	221	C or Better

TABLE 3: Peak Hour Link LOS

6.0 CONCLUSIONS

The 405 Coronado Project is a proposed hotel and commercial development.

This is an update of the original traffic study for this project.

This update illustrates that all study area links and intersections operate at acceptable levels of service with and without project traffic.

APPENDIX A Site Plan Detailed Trip Generation Information



ITE Code	Land Use Type	SF	Daily Trips	AM Peak- Hour Trips In	AM Peak- Hour Trips Out	PM Peak- Hour Trips In	PM Peak- Hour Trips Out
932	High-Turnover (Sit-Down) Restaurant	6,825	732	36	29	38	24
822	Strip Retail Plaza	20,000	1,089	28	19	66	66
310	Hotel	135	1,079	35	27	41	39
	TOTAL	-	2,900	99	75	145	129

TABLE 1: Proposed Trip Generation

High-Turnover (Sit-Down) Restaurant (932)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Weekday

Setting/Location: General Urban/Suburban

Number of Studies: 50 Avg. 1000 Sq. Ft. GFA: 5 Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
107.20	13.04 - 742.41	66.72



High-Turnover (Sit-Down) Restaurant (932)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

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: 37

Avg. 1000 Sq. Ft. GFA: 5

Directional Distribution: 55% entering, 45% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
9.57	0.76 - 102.39	11.61



High-Turnover (Sit-Down) Restaurant (932)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

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: 104

Avg. 1000 Sq. Ft. GFA: 6

Directional Distribution: 61% entering, 39% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
9.05	0.92 - 62.00	6.18



Strip Retail Plaza (<40k) (822)

Vehicle Trip Ends vs: 1000 Sq. Ft. GLA On a: Weekday

Setting/Location: General Urban/Suburban

Number of Studies: 4

Avg. 1000 Sq. Ft. GLA: 19

Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
54.45	47.86 - 65.07	7.81



Strip Retail Plaza (<40k) (822)

Vehicle Trip Ends vs: 1000 Sq. Ft. GLA

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: 5

Avg. 1000 Sq. Ft. GLA: 18

Directional Distribution: 60% entering, 40% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
2.36	1.60 - 3.73	0.94



Strip Retail Plaza (<40k) (822)

Vehicle Trip Ends vs: 1000 Sq. Ft. GLA

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: 25

Avg. 1000 Sq. Ft. GLA: 21

Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
6.59	2.81 - 15.20	2.94



Hotel (310)

Vehicle Trip Ends vs: Rooms

On a: Weekday

Setting/Location: General Urban/Suburban

Number of Studies: 7

Avg. Num. of Rooms: 148

Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Room

Average Rate	Range of Rates	Standard Deviation
7.99	5.31 - 9.53	1.92



Hotel (310) Vehicle Trip Ends vs: Rooms 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: 28 Avg. Num. of Rooms: 182 Directional Distribution: 56% entering, 44% exiting

Vehicle Trip Generation per Room

Average Rate	Range of Rates	Standard Deviation
0.46	0.20 - 0.84	0.14





Hotel (310) Vehicle Trip Ends vs: Rooms 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 Rooms: 186 Directional Distribution: 51% entering, 49% exiting

Vehicle Trip Generation per Room

Average Rate	Range of Rates	Standard Deviation
0.59	0.26 - 1.06	0.22





APPENDIX B Background Traffic

Method for determining peak hour: Total Entering Volume

LOCATION: S Hamden Dr --- S Gulfview Blvd

QC JOB #: 15521817



Report generated on 8/10/2021 9:07 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

$$SF = 1.03$$

 $G3 17 387$
 $J J J 4 400$
 $G5 J J 5 3$
 $191 - 3$
 $4 - 7 9 1 f^{2}$
 $2 9 4$

Method for determining peak hour: Total Entering Volume

LOCATION: S Hamden Dr -- Coronado Dr





Report generated on 8/10/2021 9:07 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

SF = 1.03 460 15 15 15 157 54 365

Method for determining peak hour: Total Entering Volume

LOCATION: Coronado Dr -- Fifth St

A THE PARTY NEW YORK

QC JOB #:	15521820
ATE THA	ul 27 2021

.



15-Min Count Period	Coronado Dr (~ (Northbound)				Coronado Dr (Southbound)				Fifth St (Eastbound)				Fifth St (Westbound)			Total	Hourly Totals					
Beginning At	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*		
2:30 PM 2:45 PM 3:00 PM 3:15 PM 3:30 PM 3:45 PM 3:45 PM	0 0 0 0 0	78 95 112 89 108 87	3 2 9 4 4 4 4	0 0 0 0 0	0 0 0 0 0 0	5 9 8 8 6 5 6	101 107 101 89 117 107	0 1 0 0 0	0 2 0 1 0 3 0	0 0 0 0 0 0	19 9 16 7 9 6 6	6 9 8 2 3 11 4	2 3 3 8 4 4 4	0 0 0 0 0 0	0 0 0 0 0 0	2 2 1 2 0 1 1	0 0 0 0 0 0	6 11 9 6 12 4 12	0 0 0 0 0 0 0	0 0 0 0 0 0	222 250 268 216 263 232 232 238	956 997 979 949
4:00 PM 4:15 PM		92	5	0	0	9	124	0	0	ő	15	3	6	Ő,	0	1	ŏ	5	ŏ	Ő	263	996
Peak 15-Min	Northbound				Southbound														Total			
Peak 15-Min		No	orthbou	nd			So	uthbou	nd			Ea	stboun	d			W	estbour	nd		То	tal
Peak 15-Min Flowrates	Left	No Thru	rthbou Right	nd U	R*	Left	So Thru	uthbou Right	nd U	R*	Left	Ea Thru	astboun Right	d U	R*	Left	W Thru	estbour Right	nd U	R*	То	tal
Peak 15-Min Flowrates All Vehicles Heavy Trucks Buses	Left 0 0	No Thru 448 8	Right 36 0	nd U 0	R*	Left 32 0	So Thru 404 0	uthbou Right 4 0	nd U 0	R* 0	Left 64 0	Ea Thru 32 0	Right 12 0	ud U O	R* 0	Left 4 0	W Thru 0 0	estbour Right 36 0	nd U 0	R*	To 10 8	tal 172 8
Peak 15-Min Flowrates All Vehicles Heavy Trucks Buses Pedestrians Bicycles Scooters	Left 0 0	No Thru 448 8 204 12	Right 36 0	nd U 0	<u>R*</u>	Left 32 0	So Thru 404 0 4 0	uthbou Right 4 0	nd U O	R* 0	Left 64 0 0	Ea Thru 32 0 52 0	Right 12 0	U U O	R* 0	Left 4 0 0	W Thru 0 4 0	estbour Right 36 0 0	nd U O	R* 0	To 10 26 1	tal 172 8 54 .2

Report generated on 8/10/2021 9:07 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Method for determining peak hour: Total Entering Volume

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

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LOCATION: Coronado Dr -- S Gulfview Blvd CITY/STATE: Clearwater, FL

······
OC IOB # 15521818
$\int \int \int \partial D d h$, TOOTOTO
DATE, Tue, Jul 27 2024



Report generated on 8/9/2021 12:58 PM

Method for determining peak hour: Total Entering Volume

LOCATION: S Hamden Dr -- Bayside Dr CITY/STATE: Clearwater, Fl





Scooters Comments:

Report generated on 8/10/2021 9:07 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Method for determining peak hour: Total Entering Volume

LOCATION: S Hamden Dr -- Fifth St

QC JOB #: 15521821 DATE: Tue, Jul 27 2021

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Comments:

Report generated on 8/10/2021 9:07 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

APPENDIX C

Intersection Tables

Vested Projects



Page 13

		Coronado	SB		Gulfview		Gulfvie	ew Blvd. NB		Gulfview	EB		
Le	ft	Through	Right	Left	Through	Right	Left	Thro	ough Rig	ht Left	Through	Right	
Existing*	() (36	367	0	0	0	1	685	0	330	0	22
Growth Rate*	() 7	38	426	0	0	0	1	795	0	383	0	26
Alanik Hotel	15	5	0	0	0	0	0	7	11	0	0	0	8
355 Gulfview	!	5	0	0	0	0	0	6	6	0	0	0	4
Proj Traffic	()	68	0	0	0	0	0	58	0	0	0	0
TOTAL	20) 8	06	426	0	0	0	14	870	0	383	0	38

		Coronado S	SB		Hamdon		Core	onado Drive	NB	EB			
Le	ft	Through	Right	Left	Through	Right	Left	Thro	ough Rig	ght Left	Throw	ugh Right	
Existing*	1	5 4	:60	0	57	0	57	0	365	54	0	0	0
Growth Rate*	1	7 5	34	0	66	0	66	0	423	63	0	0	0
Alanik Hotel)	15	0	0	0	0	0	11	0	0	0	0
355 Gulfview)	5	0	0	0	0	0	6	0	0	0	0
Proj Traffic)	0	0	68	0	0	0	0	58	0	0	0
TOTAL	1	7 5	54	0	134	0	66	0	440	121	0	0	0

		Corona	ado SB			5th St. WB			Coronado D	rive NB	5th St. EB		
L	eft	Throu	gh Rig	ght Le	ft T	'hrough l	Right	Left	Through	Right	Left	Through	Right
Existing*		35	426	2	5	0	39	0	410	6 54	42	23	18
Growth Rate*		41	494	2	6	0	45	0	483	3 63	49	27	21
Alanik Hotel		0	13	0	0	0	0	0	1	5 0	6	0	0
355 Gulfview		0	0	6	0	0	0	5	() 0	4	0	5
Proj Traffic		87	0	0	0	0	77	0	(0 0	0	0	0
TOTAL	1	28	507	8	6	0	122	5	498	63	59	27	26

		Hamden D	r. SB		Bayside	Drive WB		Hamden D	r. NB		EB		
L	eft	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right	
Existing*	1	3	54	0	7	0	15	0	62	8	0	0	0
Growth Rate*	1	5	63	0	8	0	17	0	72	9	0	0	0
Alanik Hotel	()	0	0	0	0	0	0	0	0	0	0	0
355 Gulfview	()	0	0	0	0	0	0	0	0	0	0	0
Proj Traffic	()	67	0	0	0	0	0	57	0	0	0	0
TOTAL	1	5 1	30	0	8	0	17	0	129	9	0	0	0

		Hamden	Dr. SB		,	WB		Hamden D	r. NB		Fifth St. EE	3	
L	eft	Through	ı Right	Left	Throu	ıgh Right	Left	Through	Right	Left	Through	Right	
Existing*		0	52	3	15	66	0	15	66	0	17	0	15
Growth Rate*		0	60	3	17	77	0	17	77	0	20	0	17
Alanik Hotel		0	0	0	0	0	0	0	0	0	0	0	0
355 Gulfview		0	0	0	0	0	0	0	0	0	0	0	0
Proj Traffic		0	0	0	0	0	0	0	0	0	0	0	0
TOTAL		0	60	3	17	77	0	17	77	0	20	0	17

				5th St	. WB		Driveway	y NB		5th Str	eet EB	
Left	Through	Right	Left	Throug	h Right	Left	Through	Right	Left	Through	Right	
Existing*	0	0	0	0	44	0	0	0	0	0	77	0
Growth Rate*	0	0	0	0	51	0	0	0	0	0	89	0
Alanik Hotel	0	0	0	0	0	0	0	0	0	0	0	0
355 Gulfview	0	0	0	0	0	0	0	0	0	0	0	0
Proj Traffic	0	0	0	57	0	0	0	0	0	0	0	86
TOTAL	0	0	0	57	51	0	0	0	0	0	89	86





DIELLAS,355 S Cultiview Bind Hotel (17-004),17-004 TC-Jing, 03/19/17 09:32-33

APPENDIX D

SYNCHRO Output

1: Hotel driveway/Ha	mden	& S G	ulfview	Blvd/	S Gulf	view B	lvd.		-		8/1	0/2021
	*	-	۲	_#	-	\mathbf{F}	7	×	/	Ç,	*	~
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations		¢		F	ŧ		¥4	¢.			÷	*
Volume (vph)	2	ල දි	4	387	17	63	65	191	4.000	300	258	400
Ideal Flow (vphpl) Storage Length (ft)	1900 100	1900	1900 100	1900 202	1ano	1900 550	1900 355	nna!	1900 355	800 800	1900	409
Storage Lanes	0		0	-		0			0	0		~
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.8	1.00	1.00
Ped bike Factor		0.90 0.064		0.59	U,89 0 050		U./9	0.99 0 997			N.I	0.850
Fit Protected		0.993		0.950	0.968		0.950	5.5			0.999	8
Satd. Flow (prof)	0	1802	0	1715	1503	0	1736	1800	0	0	1861	1583
Fit Permitted		0.993		0.950	0.968		0.571				0.997	
Satd. Flow (perm)	0	1739	0	1689	1488	0	829	1800	0	0	1849	950
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4			18			- 10 - 10 - 10				412
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		287 7 0			565			611 167			887 24 0	
Travel Time (s)		۲.۵	1	I	10.4			10.7			24.2	
Confl. Peds. (#/hr)	120		ç	۹ م		120	176		607	28 29		07 70
CONII, BIKES (#/III) Deak Hour Fector	0 07	0 07	0 Q7	0 07	0 97	0 97	0 97	0 97	ہ 0 97	0.97	0.97	1 0 97
Heavy Vehicles (%)	%0	0%	%0	%0	%0	%0	4%	4%	4%	2%	2%	2%
Adi. Flow (vph)	2	, O	4	399	18	65	67	197	4	ę	266	412
Shared Lane Traffic (%)				39%								
Lane Group Flow (vph)	0	15	0	243	239	0	67	201	0	0	269	412
Turn Type	Split	NA		Split	NA		Perm	NA		Perm	NA	Perm
Protected Phases	2	2		9	9			4			4	r
Permitted Phases	c	¢		G	٩		4	1997 - 1 997 - 1997 -		4	٢	4 1
Detector Phase	×	V		o	0		t	10000000000000000000000000000000000000		+		t (1)
owitch Filaeo Minimum Initial (s)	50	50		50	5.0		5.0	5.0		5.0	5.0	5.0
Minimum Solit (s)	25.0	25.0		30.0	30.0		25.0	25.0		25.0	25.0	25.0
Total Split (s)	25.0	25.0		40.0	40.0		45.0	45.0		45.0	45.0	45.0
Total Split (%)	22.7%	22.7%		36.4%	36.4%		40.9%	40.9%		40.9%	40.9%	40.9%
Maximum Green (s)	21.0	21.0		36.0	36.0		41.0	41.0		41.0	41.0	41.0
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0 -	3.0	0.0 7
All-Red Time (s)	1.0	1.0		1.0	1.0	Alternation of the	1.U	1.0		0'L	1.0	0.1 0
Lost I me Adjust (s)		0,U A O		0.U N	0.0		0.0 V	0'N V V			0.U A O	0.0 A O
l utal Lost IIIIte (s) Loodill ad		-		7.			-	>F			>	P
Lead-Lad Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3,0	3.0
Recall Mode	None	None		Min	Min		None	None		None	None	None
Walk Time (s)	7.0	7.0		7,0	7.0		7.0	7.0		7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#hr)	0	0		0	0		0	0		0	0 0	
Act Effct Green (s)		6.9 2		133	13.9		18.0	18.0			18.0 0.40	18.U
Acutated gro Fratio v/c Ratio		0.05		0.44 0.44	 0.48 0.48 		0.19	0.26			0.34	0.64
EXISTING CONDITIONS 2021	8/10/20	21 AFTEI	RNOON	PEAK HC	JUR					0,	Synchro 8	Report
RP	5	i - - -) 	; ;]	,						•	age 1

Lanes, Volumes, Timings

Lanes, Volumes, Timi 1: Hotel driveway/Han	ngs nden	& S S	ulfview	Blvd/	S Gulf	view B	.lvd.				8/10/2(021
	¥	-	۲	_#		₽	•	×	/	*		1
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NMT NM	T N	WB
Control Delay		22.5		16.8	16.9		11.0	10.2		10,	ø	6.9
Queue Delay		0.0		0.0	0.0		0.0	0.0		Ö	0	0.0
Total Delay		22.5		16.8	16.9		11.0	10.2		10.	8	0.9
ros		ပ		മ	ш		æ	œ∕			<u>а</u> с	< ∛
Approach Delay		22.5	Hulel		(16.9	Hcwa	4 9	(10.4)	S CUR	× • · · (8)	م .	
Approach LOS		ပ				r Produktion da situation		E C			A	C
Queue Length 50th (ft)		2		98 1	ee S		7	22			5	<u></u>
Queue Length 95th (ft)		23		175	168 168		46	105			1	3
Internal Link Dist (tt)		707			485			0 .31		00		
Turn Bay Length (ft)		0000		202	000		305	OFUE				201
Base Capacity (vph)		1062 î		(1472)	1293		(4) ,	1610		100	4 o	523
Starvation Cap Reductn		0		0	0		0	0			0	⊃ ¢
Spillback Cap Reductn		0		0	0		0	0			0 •	0
Storage Cap Reductn		0		0	0,0		0	0			0	0
Reduced v/c Ratio		0.01		0.17	0,18		0.09	0.12		C'N	n o	40
Intersection Summary												
Area Type: Othe	ወ											
Cycle Length: 110												
Actuated Cycle Length: 42.6												
Natural Cycle: 80												
Control Type: Semi Act-Uncoord												
Maximum V/C Katlo: U.64				Int	ersection	LOS: B						
Intersection Capacity Utilization	62.2%)			<u>o</u>	J Level c	of Service	, e					
Analysis Period (min) 15												
Shifts and Phases: 1: Hotel dr	rivewav/	Hamden	& S Gulfv	iew Blvd/;	S Gulfvie	w Blvd.						
						2	e je					
1 p2	90						b 4					
	a 2						0				- Arrithmus I trained and	

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	ado & Hamden Dr
HCM 2010 TWSC	3: Hamden/Corona

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Molecular Notification Notification <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>								
Noti-Weith 365 64 15 460 57 25 Connentiged Free Free Free Free Stop Stop Sign Connentiged Free Free Free Stop Stop Stop Sign Connentiged Free Free Free Stop Stop Stop RC Channelized - 0 - 0 - Stop RC Channelized - 0 - 0 - Stop RC Channelized 0 - 0 - 0 - Stop RC Channelized - 0 - 0 - 0 - Stop Magn/Micro Majori -	Movement	NBT	NBR	SBL	SBT	SWL	SWR	
Conficting Peds, #hr 0 14 0 14 Conficting Peds, #hr 0 0 10 10 10 R(Cantrol Free Free Free Free Stop Stop R(Cannot) Free Free Free Free Stop Stop R(Cannot) Free 0 - 0 0 - Stop R(Cannot) 1 0 - 0 0 0 - Stop Stop <t< td=""><td>Vol, veh/h</td><td>365</td><td>54</td><td>15</td><td>460</td><td>57</td><td>25</td><td></td></t<>	Vol, veh/h	365	54	15	460	57	25	
Sign Carliel Free Free Free Free Free Free Free Free Free Sign	Conflicting Peds, #/hr	0	0	14	0	0	14	
Channelized None None Stop Strongs Length 0 1 0 40 Win Madri Surget, france 0 1 0 40 Strongs Length 0 1 0 2 0 Cataly, france 0 2 2 1 40 Cataly Miner 0 2 2 1 43 2 Marchine Marchine 0 0 0 54 1 43 Stage 1 1 0 0 366 0 54 1 33 Stage 1 1 0 0 366 0 514 1	Sign Control	Free	Free	Free	Free	Stop	Stop	
Storage Length · · · · · · · · · · · · · · · · · · ·	RT Channelized	F :	Vone	t	Vone		Stop	
Volt in Moder Strage, # 0 - 0 0 - Volt in Moder Strage, # 0 - 0 0 - Peak Hour Factor 98 98 98 98 98 Heavy Valdes, % 2 2 1 1 0 0 - Mer Minor Majori Majori Majori Majori Minori 0 0 - May Valdes, % 27 55 15 489 58 58 56 56 56 54 49 56 - 54 - - 54 - - - 54 - - - 54 - - - - - - - 54 -	Storage Length		0	75		0	40	
Grade, % 0 : 0 : 0 : 0 : 0 0 : : 1 1 0 0 : : 1 1 0 0 : : 1 1 0<	Veh in Median Storage, #	0	r	1	0	0	4	
Peak Hour Factor 98 99 91 49 91 49 91 49 91 49 91 49 91	Grade, %	0			0	0		
Heavy Valides, % 2 2 1 1 0 0 Manuf Flow 372 55 15 469 58 26 26 Manuf Flow 372 55 15 469 58 26 53 26 54 9 56 14 49 9 56 14 49 56 14 49 56 53 56 15 469 56 56 14 49 56 56 14 56 56 15 469 56 56 14 56 <	Peak Hour Factor	8 6	98	86	98	98	<u>86</u>	
Mmm Flow 372 55 15 469 58 26 Majorition 64 5 <td< td=""><td>Heavy Vehicles, %</td><td>2</td><td>2</td><td></td><td></td><td>0</td><td>0</td><td></td></td<>	Heavy Vehicles, %	2	2			0	0	
Major Million Major Major Major Million Major Million Conflicting Flow All 0 0 366 0 514 49 Stage 1 - - - - - - - - Stage 1 - </td <td>Mvmt Flow</td> <td>372</td> <td>55</td> <td>15</td> <td>469</td> <td>58</td> <td>26</td> <td></td>	Mvmt Flow	372	55	15	469	58	26	
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Maior/Minor	Major1		Major2		Minor1		
Stage 1	Conflicting Flow All	0	0	386	0	514	49	
Stage 2 Stage 2 500 500 Critical Hdwy Critical Hdwy Sg 1 - - - 64 - Critical Hdwy Sg 1 - - - 54 - - Critical Hdwy Sg 2 - - - 54 - - Critical Hdwy Sg 2 - - - 54 -	Stage 1	•	•	г	1	14	. 1	
Critical Hów Critical Hów Sig 1 6.4	Stade 2					500		
Critical Hdwy Sig 1 Critical Hdwy Sig 2 Follow-up Hdww Reform-up Hdww Reform-up Hdww Stage 1 Stage 2 Stage 1 Mov Cap - Maneuver Stage 2 Mov Cap - Maneuver Mov Cap - Maneuver Stage 2 Mov Cap - Maneuver Mov Cap - Mov Cap - Mov HCM Cantro Delay, s HCM LOS HCM L	Critical Hdwy	ŀ	r	1	·	6.4	·	
Critical Idwy Stg 2 - - - 5.4 - Follow-up Hdwy - - - 3.5 - - Plote-up Hdwy - - - - - 3.5 - - Plote-up Hdwy - - - - 5.4 - - 3.5 - - - 3.5 - - - 3.5 -	Critical Hdwy Stg 1						1999 - 19	
Follow-up Hdwy Pat Cap-1 Maneurer	Critical Hdwy Stg 2	1	ı	ł	t	5.4	r	
Pol Cap-1 Maneurer 524 5 Stage 1 -<	Follow-up Hdwy					3.5		
Stage 1 5 </td <td>Pot Cap-1 Maneuver</td> <td>1</td> <td>1</td> <td>t</td> <td>1</td> <td>524</td> <td>۱</td> <td></td>	Pot Cap-1 Maneuver	1	1	t	1	524	۱	
Stage 2 - </td <td>Stage 1</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	Stage 1							
Platon bloked, % - - - 514 - Mov Cap-1 Maneuver - - - 514 - Mov Cap-1 Maneuver - - - 514 - Mov Cap-2 Maneuver - - - 514 - - Mov Cap-2 Maneuver - - - 514 - - - Stage 1 - - - - 514 - <td< td=""><td>Stage 2</td><td></td><td>r</td><td>1</td><td>1</td><td>613</td><td>ı</td><td></td></td<>	Stage 2		r	1	1	613	ı	
Mov Cap-1 Maneuver 514 516	Platoon blocked, %				1			
Mov Cap-2 Maneuver 514 514 514 514 514 514 514 514 514 514 515 516 516 516 516 516 516 516 516 516 516 516 516 516 516 516 516 517 517 517 517 518 518 518 511 517	Mov Cap-1 Maneuver	L	. 1	1	ŧ	514	,	
Stage 1 - </td <td>Mov Cap-2 Maneuver</td> <td></td> <td></td> <td></td> <td></td> <td>514</td> <td></td> <td></td>	Mov Cap-2 Maneuver					514		
Stage 2	Stage 1	1	•	r	r	•	I	-
Approach NB SB SW HCM Control Delay, s 0 SW SW HCM LOS 0 SBTSWLn1SWLn2 . Minor Lane/Major Numt NBT NBT SBTSWLn1SWLn2 Minor Lane/Major Numt NBT SBTSWLn1SWLn2 . Capacity (veh/h) - - - HCM Lane V/C Ratio - - - HCM Jane LOS - - - HCM 95th %tile Q(veh) - - -	Stage 2		1			609		
ApplycateNoNoNoHCM Control Delay, s0HCM Lane/Major MvmtNBTNBTSBLSBTSWLn1SWLn2Minor Lane/Major Mvmt514Capacity (veh/h)514Capacity (veh/h)HCM Lane V/C RatioHCM Lane V/C RatioHCM Lane LOSHCM Lane LOSHCM 95th %tile Q(veh)HCM 95th %tile Q(ve	Ammondh	QV		av		CM		
HCM Lane/Major Munit NBT NBR SBL SBTSWLn1SWLn2 Capacity (veh/h) 514 - HCM Lane V/C Ratio HCM Lane V/C Ratio HCM Lane LOS HCM Lane LOS HCM S5th %tite Q(veh)	Apploadi			3		MO		
Minor Lane/Major MuntNBTNBTSBLSBTSWLn1SWLn2Capacity (veh/h)514-Capacity (veh/h)514-HCM Lane V/C Ratio13HCM Control Delay (s)13HCM Lane LOS $B_{\rm D}$ HCM 95th %tile Q(veh)0.4HCM 95th %tile Q(veh) $B_{\rm D}$	HCM LOS	•						
Capacity (veh/h)514-HCM Lane V/C Ratio0.113-HCM Control Delay (s) (129) -HCM Lane LOS (129) -HCM 95th %tite Q(veh) (24) -HCM 95th %tite Q(veh) (74)	Minor Lane/Major Mvmt	NBT NBR	SBL SB	TSWLn1SV	VLn2			
HCM Lane V/C Ratio	Capacity (veh/h)	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.	- 514	1 - 200 1 - 200 1 - 200 1 - 200 2 - 20			
ным control Jelay (s)	HCM Lane V/C Ratio			- 013				
HCM 95th %tite Q(veh) 5.4 $\left($	HCM Control Delay (s)		1 10000	- (12,9) (12,9)				
SW BOUND (HAMDEN) \$70	HCM 95th %tile Q(veh)	1990-1990-1990-1990-1	1949-00-00-00-0-0-0-0-0-0-0-0-0-0-0-0-0-0	10	т Т			
						0110	VIA) UN	NOEN) BYC
						2		

EXISTING CONDITIONS 2021 8/10/2021 AFTERNOON PEAK HOUR RP

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Synchro 8 Report Page 1

HCM 2010 TWSC 12: Coronado Dr & F	Fifth S	VFift	ן St.								8/12/2021
Intersection											
Int Delay, s/veh 4			6 /E	RAU	Ø	No.					
Movement	EBL	EBT	EBR	WBL	. WBT	WBR	NBL	NBT	NBR	SBL	SBT SBR
Vol, veh/h	42	23	18	2	0	39	0	416	19	35	426 2
Conflicting Peds, #/hr	88	0	88 10	8	े े र	8	199	- 	199 7	7 100000-0000	0 7
Sign Control RT Channelized	ctop	stop -	Stop None	- -		None	-	-ree	rree None	- 196	Free Free
Storage Length							300			100	
Veh in Median Storage, #	-	0	1		0		-	0		1	- 0
Grade, % Doot Hour Footor	- 60	- S	- 5		0 g	6		0 0 0	03 03	- 65	03 03
Heavy Vehicles %	0	2 O	<u>م</u>	2	S	2	2	3 0	2	e e e e e e e e e e e e e e e e e e e	3 1
Mumt Flow	45	25	19	Q	0	42	0	447	20	38	458 2
Major/Minor	ZIOUIN			MINOLI			Majori				
Conflicting Flow All	1088	1078	726	1090	1069	473	979	0	N N N	4/6	N N
Stage 1	602 602	203	t and a second	460	400	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			1 1		
Stage 2	486 √ 4	4/0 2	• • •	674 <u>←</u>	003	- C 2	C+ V			<pre>////////////////////////////////////</pre>	
Critical Hawy		2 2 2 2	7.0	1.12 21.7	0.0Z	77.0	4.14	I NEWS			
	0. 1.0	с и с и		0.1v A 1.0	л с 7 7 7			1			
CIIIICAI FIUMY SIY 2 Entrometrin Hohmer	- 4 7 c	, 7	3.2	0, 15 3 518	4 018	3 318	2 218			2 209	
Pot Can-1 Manerver	195	220	428 428	193	221	591	1039	•	1	1091	С
State 1	490	492		577	562						
Stage 2	566	560	1	473	488	1	•	I	1	•	1
Platoon blocked, %											
Mov Cap-1 Maneuver	164	197	324	128	198	583	842	1.0000000000000000000000000000000000000		1084	1
Mov Cap-2 Maneuver	164	197		128	198						
Stage 1 ctore o	458 533	444 556		5/3 328	558 040			•			
	7	2									
Approach	EB			WB			NB			ß	
HCM Control Delay, s	38.5	-		14.8			0			0.6	
HCMLOS	Ш										
Minor I ano/Maior Mumt	NRI	NRT	NRR FF	l n/MRI n/	R	CRT	SBR				
ריייייווווטן במוזמיזאומאט איזאיזוג	CP8	- NC -		104 415	1084		-		to state in colline a particular		1990
Capacity (VEII/II) HCM Lane V/C Ratio	45	•		0.46 0.114	0.035						
HCM Control Delay (s)	0	t	1	38.5 14.8	8.4		•			:	
HCM Lane LOS	Α) A	$\left\{ \right\}$	X					
HCM 95th %tile Q(veh)	0	1	Ŧ	2.2 0.4	0.	•	ı				
						J	00100			0	
							ور المحمد الم	2320		į	

EXISTING CONDITIONS 2021 8/10/2021 AFTERNOON PEAK HOUR RP I

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Lane Groun	≺ ≣	► RR	Interview	+ NBT	→ ¹⁸⁸	SBR 🔨	
Lane Configurations	14			÷	**	*-	
Volume (voh)	330	22		685	636	367	
Ideal Flow (vohol)	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	11	V	L F		रू र		
Storage Length (ft)	291	0	400			200	
Storage Lanes		0	0			-	
Taper Length (ft)	25		25				
Lane Util. Factor	0.97	0.95	0.95	0.95	0.95	1.00	
Ped Bike Factor	1.00			1.00		0.88	
ů. Hu	0.991					0.850	
Fit Protected	0.955		and a state of the				
Satd. Flow (prot)	3306	0	0	3421	3421	1531	
Fit Permitted	0.955			0.954			
Satd. Flow (perm)	3297	0	0	3264	3421	1343	
Right Turn on Red		Yes				Yes	
Satd. Flow (RTOR)	9					386	
Link Speed (mph)	25			25	25		
Link Distance (ft)	435			400	542		
Travel Time (s)	11.9			10.9	14.8		
Confl. Peds. (#/hr)			34			34	
Confl. Bikes (#/hr)			-			~	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	
Adj. Flow (vph)	347	23	~~	721	699	386	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	370	0	0	722	699	386	
Turn Type	Prot		Perm	NA	NA	Perm	
Protected Phases	4			2	9		
Permitted Phases			2			9	
Detector Phase	4		2	2	ပ	g	
Switch Phase							
Minimum Initial (s)	5.0		5.0	5.0	5.0	5.0	
Minimum Split (s)	22.5		22.5	22.5	22.5	22.5	
Total Split (s)	30.0		80.0	80.0	80.0	80.0	
Total Split (%)	27.3%		72.7%	72.7%	72.7%	72.7%	
Maximum Green (s)	26.0		76.0	76.0	76.0	76.0	
Yellow Time (s)	3.0		3.0	3.0	3.0	3.0	
All-Red Time (s)	1.0		1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0			0.0	0.0	0.0	
Total Lost Time (s)	4.0	-		4.0	4.0	4.0	
Lead/Lag							
Lead-Lag Optimize?							
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0	
Recall Mode	None		Min	Min	Min	Min	
Walk Time (s)	7.0		7.0	7.0	7.0	2.0	
Flash Dont Walk (s)	11.0		11.0	11.0	11.0	11.0	
Pedestrian Calls (#/hr)	0		0	0	0		
Act Effct Green (s)	9.6			18.8	18.8	18.8	
Actuated g/C Ratio	0.26			0.5]	0.51	10'D	
v/c Ratio	0.42			0.43	0.38	0.44	
EXISTING CONDITIONS 202	1 8/10/20	21 AFTE	RNOON	PEAK HO	ЧR		Synchro 8 Report
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8/10/2021

Lanes, Volumes, Timings 17: Coronado Dr & Gulfview Dr.

		← ∢	→	•	
Lane Group	EBL EBR	NBL NBT	SBT	SBR	
Control Delay	13.8	6.5	6.1	2.5	
Queue Delay	0.0	0.0	0.0	0.0	
Total Delay	13.8	6.5	6.1	2.5	
ros	Ш	¥.	A	Α	
Approach Delay	13.8	(6.5)	4.8		
Approach LOS	ш	A	4		
Queue Length 50th (ft)	29	38	34	0	
Queue Length 95th (ft)	74	76	68	26	
Internal Link Dist (ft)	355	320	462		
Turn Bay Length (ft)	291			200	
Base Capacity (vph)	2429	3264	3421	1343	
Starvation Cap Reductn	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	
Storage Cap Reductn	0	0	0	0	
Reduced w/c Ratio	0,15	0.22	0.20	0.29	
Intersection Summary					
Area Type: 0	Other				
Cycle Length: 110					
Actuated Cycle Length: 36.7					
Natural Cycle: 45					
Control Type: Semi Act-Unco	ord				
Maximum v/c Ratio: 0.44					0
Intersection Signal Delay 6.9			Intersection	LOS A>	
Intersection Capacity Utilization	on 51.3%		CU Level ol	i Jervice A	
Alidiyala (Teliuu (IIIII) IIA (2000)					į.
Splits and Phases: 17. Con	onado Dr & Gulfv	iew Dr.			[
, T				A 4	
1 pz 80 s				30.5	

8/10/2021

Lanes, Volumes, Timings 17: Coronado Dr & Gulfview Dr.

Intersection					
Int Delay, s/veh	1.9				
Managed -	law	QQIV	NIDT NIDD	E.	
Wovennenn Vol vah/h		VIDA 15	Rou Ioui	00E 001 13 54	
Conflicting Peds. #/hr	34	32	0 2 0 2	9 0	
Sian Control	Stop	Stop	Free Free	Free Free	
RT Channelized	1	None	- None	- None	
Storage Length	0				
Veh in Median Storage, #	0	•	•	0	
Grade, %	0		•	0	
Peak Hour Factor	81	81 Anna a ruewa wa een een een een	81 81	81 81	
Heavy Vehicles, %	, S	· · · · · · · · · · · · · · · · · · ·	3 		
Mvmt Flow	ი	19 	77 10	16 6/	
<u>Major/Minor</u>	Minor1		Major1	Major2	
Conflicting Flow All	214	124	0 0	120	
Stage 1	115	1	1		
Stage 2	66				
Critical Hdwy	6.45	6.25	1	4.1 -	
Critical Hdwy Stg 1	5,45				
Critical Hdwy Stg 2	5.45				
Follow-up Hdwy	3.545	3.345		2.2	
Pot Cap-1 Maneuver	768	919		1480	
Stage 1	902				
Stage 2	917				
Platoon blocked, %					
Mov Cap-1 Maneuver	734	882		1467	
Mov Cap-2 Maneuver	734			2017년 11월 2017년 - 1월 2017년 - 1월 2017년 1월 2017년 1월 2017년 1월 2017	
Stage 1	873		E		
Stage 2	302				
Approach	WB		NB	SB	
HCM Control Delay, s	9.5		0	1.5	
HCM LOS					
Minor Lane/Major Mvmt	NBT NI	<u> 3RWBLn1 SBL SBT</u>			
Capacity (veh/h)		- 829 1467 -			
HUM Lane V/U Ratio		- 0.003 0.011			
HOW CONTOL DELAY (S)				i anner /	
HCM 95th %tile O(veh)	1999-999-999-999-999-999-999-999-999-99				
				2. AN O HIL	
		SM MB	APPRUNUM	2012 2160	

EXISTING CONDITIONS 2021 8/10/2021 AFTERNOON PEAK HOUR RP

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8/13/2021

HCM 2010 TWSC 9: Hamden Dr & Bayside

Intersection				
Int Delay, s/veh 2	.5			
Movement	EBL	EBR	NBL NBT	SBT SBR
Vol, veh/h	17	15	15 66	52 3
Conflicting Peds, #/hr	26	26	0	6 0
Sign Control	Stop	Stop	Free Free	Free Free
RT Channelized	n serie v Konstantine. F	None	- None	- None
Storage Length	0			
Vell III Ivreulali Stolage, # Grade. %	0		0 -	, 0
Peak Hour Factor	84	84	84 84	84 84
Heavy Vehicles, %	9	9	4	
Mvmt Flow	20	18	18 79	62 4
Maior/Minor	Minor2		Maiori	Major2
Conflicting Flow All	204	06	91 0	0 -
Stage 1	06	•	а Т	,
Stage 2				
Critical Hdwy	6.46	6.26	4,14 -	
Critical Hdwy Stg 1	5.46			
Critical Hdwy Stg 2	5,46	1		
Follow-up Hdwy	3.554 	3.354	2.236 -	
Pot Cap-1 Maneuver	7/6	95/ 1951	1491 -	
Stage 1	924			
Stage 2	901			
Hatoon blocked, %	002	000	1999-1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1 4 4 10 4	
Mov Cap-1 Maneuver	0770 700	933	1491	
MOV. Cap-2 Marteuver	004			
Starte 2				
	200			
Approach	EB		NB	SB
HCM Control Delay, s	9.7		1.4	0
HCMLOS	X			
Minor Lane/Major Mvmt	NBL NE	<u>3T EBLn1 S</u>	SBT SBR	
Capacity (veh/h)	1491	- 812		
HCM Lane V/C Ratio	7.6	- 0.04/		
HCM LOIIIO Delay (s) HCM I ane I OS	('+')	A CA	and and the second s	CL- VALLANNI (S.)
HCM 95th %tile Q(veh)	0	- 0.1	E	
	- Norana		,	
	J	527	(MANDEW)	
	**		ŕ	

EXISTING CONDITIONS 2021 8/10/2021 AFTERNOON PEAK HOUR RP

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HCM 2010 TWSC 11: Hamden Dr/Hamden Dr. & Fifth St.

Intersection

Int Delay, s/veh 22.3

Movement EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	\$			\$		1	ţ,		7	4		
Traffic Vol, veh/h 59	27	26	6	0	122	5	498	63	128	507	8	
Future Vol, veh/h 59	27	26	6	0	122	5	498	63	128	507	8	
Conflicting Peds, #/hr 0	0	0	0	0	0	0	0	0	0	0	0	
Sign Control Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	
RT Channelized -	-	None	-	-	None	-	-	None	-	-	None	
Storage Length -	-	-	-	-	-	0	-	-	0	-	-	
Veh in Median Storage,-	# 0	-	-	0	-	-	0	-	-	0	-	
Grade, % -	0	-	-	0	-	-	0	-	-	0	-	
Peak Hour Factor 92	92	92	92	92	92	92	92	92	92	92	92	
Heavy Vehicles, % 2	2	2	2	2	2	2	2	2	2	2	2	
Mvmt Flow 64	29	28	7	0	133	5	541	68	139	551	9	

Major/Minor	Minor2		Μ	linor1		М	ajor1		М	ajor2			
Conflicting Flow	All1486	1453	556	1447	1423	575	560	0	0	609	0	0	
Stage 1	834	834	-	585	585	-	-	-	-	-	-	-	
Stage 2	652	619	-	862	838	-	-	-	-	-	-	-	
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-	
Critical Hdwy Sto	g 1 6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-	
Critical Hdwy Sto	g 2 6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-	
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.0183	3.3182	2.218	-	- 2	2.218	-	-	
Pot Cap-1 Mane	uver103	130	531	109	136	518	1011	-	-	970	-	-	
Stage 1	362	383	-	497	498	-	-	-	-	-	-	-	
Stage 2	457	480	-	350	382	-	-	-	-	-	-	-	
Platoon blocked	, %							-	-		-	-	
Mov Cap-1 Man	euver68	111	531	73	116	518	1011	-	-	970	-	-	
Mov Cap-2 Man	euver68	111	-	73	116	-	-	-	-	-	-	-	
Stage 1	360	328	-	495	496	-	-	-	-	-	-	-	
Stage 2	338	478	-	258	327	-	-	-	-	-	-	-	

Approach	EB	WB	NB	SB	
HCM Control D	ela ŷ,5 \$5.2	18.6	0.1	1.9	
HCM LOS	F	С			

Minor Lane/Major Mvmt	NBL	NBT	NBRE	BLnM	/BLn1	SBL	SBT	SBR
Capacity (veh/h)	1011	-	-	97	403	970	-	-
HCM Lane V/C Ratio	0.005	-	-	1.255	0.345	0.143	-	-
HCM Control Delay (s)	8.6	-	-	255.2	18.6	9.3	0	-
HCM Lane LOS	Α	-	-	F	С	Α	А	-
HCM 95th %tile Q(veh)	0	-	-	8.5	1.5	0.5	-	-

	٠	7	1	†	ŧ	~
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	NM			41	**	1
Traffic Volume (vph)	383	38	14	870	806	426
Future Volume (vph)	383	38	14	870	806	426
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util Factor	0.97	0.95	0.95	0.95	0.95	1 00
Frt	0.987	0.00	0.00	0.00	0.00	0.850
Elt Protected	0.956			0 999		0.000
Satd Flow (prot)	3410	0	0	3536	3539	1583
Elt Permitted	0.956	Ū	Ŭ	0.939	0000	1000
Satd Flow (perm)	3410	0	0	3323	3530	1583
Right Turn on Red	0110	Yee	0	0020	0000	Yee
Satd Flow (RTOR)	28	103				463
Link Speed (mph)	20			30	30	-100
Link Distance (fft)	1070			730	580	
	24.2			16.6	12 /	
Deak Hour Easter	24.0	0.02	0.02	0.0	0.02	0.02
Adi Elow (vob)	0.92	0.92	0.92	0.92	0.92	0.92
Auj. Flow (VpII) Sharod Lana Troffic (9/	410	41	15	940	0/0	403
Shareu Lane Trailic (%)	0	0	064	076	460
Lane Group Flow (Vph)	45 <i>1</i>	U	U	901	0/0	403
		N0 Diatest	INO	INO	INO	NO Diacht
Lane Alignment	Left	Right	Lett	Left	Left	Right
Median Width(ft)	24			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Land	е					
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Number of Detectors	1		1	2	2	1
Detector Template	Left		Left	Thru	Thru	Right
Leading Detector (ft)	20		20	100	100	20
Trailing Detector (ft)	0		0	0	0	0
Detector 1 Position(ft)	0		0	0	0	0
Detector 1 Size(ft)	20		20	6	6	20
Detector 1 Type	CI+Ex		CI+Ex	CI+Ex	CI+Ex	CI+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0		0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0		0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0		0.0	0.0	0.0	0.0
Detector 2 Position(ft)				94	94	
Detector 2 Size(ft)				6	6	
Detector 2 Type				CI+Ex	CI+Ex	
Detector 2 Channel						
Detector 2 Extend (s)				0.0	0.0	
	Prot		Perm	NA	NA	Perm
Protected Phases	/			2	6	
Permitted Phases			2	2	0	6
Detector Phase	1		2	2	6	6
Switch Phase	4		2	2	0	U
Minimum Initial (a)	5.0		EO	EO	EO	EO
winimum mitial (s)	5.0		5.0	5.0	5.0	5.0

peak hour total traffic 08/17/2024 Baseline

	٠	7	1	1	ŧ	1	
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	
Minimum Split (s)	22.5		22.5	22.5	22.5	22.5	
Total Split (s)	22.5		22.5	22.5	22.5	22.5	
Total Split (%)	50.0%		50.0%	50.0%	50.0%	50.0%	
Maximum Green (s)	18.0		18.0	18.0	18.0	18.0	
Yellow Time (s)	3.5		3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0		1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0			0.0	0.0	0.0	
Total Lost Time (s)	4.5			4.5	4.5	4.5	
Lead/Lag							
Lead-Lag Optimize?							
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0	
Recall Mode	None		C-Min	C-Min	C-Min	C-Min	
Walk Time (s)	7.0		7.0	7.0	7.0	7.0	
Flash Dont Walk (s)	11.0		11.0	11.0	11.0	11.0	
Pedestrian Calls (#/hr)	0		0	0	0	0	
Act Effct Green (s)	10.9			25.1	25.1	25.1	
Actuated g/C Ratio	0.24			0.56	0.56	0.56	
v/c Ratio	0.54			0.52	0.44	0.43	
Control Delay	15.9			8.0	7.3	2.3	
Queue Delay	0.0			0.0	0.0	0.0	
Total Delay	15.9			8.0	7.3	2.3	
LOS	В			A	A	A	
Approach Delay	15.9			8.0	5.6		
Approach LOS	В			A	A		
Queue Length 50th (ft)	49			68	59	0	
Queue Length 95th (ft)	73			129	111	33	
Internal Link Dist (ft)	990			650	509		
Turn Bay Length (ft)	4000			1050	1070	4007	
Base Capacity (vph)	1380			1852	1972	1087	
Starvation Cap Reductr	1 O			0	0	0	
Spillback Cap Reductn	0			0	0	0	
Storage Cap Reductn	0			0	0	0	
Reduced v/c Ratio	0.33			0.52	0.44	0.43	
Intersection Summary							
Area Type: 0	Other						
Cycle Length: 45							
Actuated Cycle Length:	45						
Offset: 0 (0%), Referen	ced to pl	nase 2:	NBTL a	nd 6:SE	BT, Star	of Green	۱
Natural Cycle: 45							
Control Type: Actuated-	-Coordin	ated					
Maximum v/c Ratio: 0.5	54						
Intersection Signal Dela	ay: 8.1				ntersec	tion LOS:	А
Intersection Capacity U	tilization	58.3%		I	CU Lev	el of Serv	vice E
Analysis Period (min) 1	5						

Splits and Phases: 4: Gulfview Dr. & Coronado

	▶ _{Ø4}
22.5 s	22.5 s
₫ Ø6 (R)	
22.5 s	

Intersection						
Int Delay, s/veh	1.6					
Movement	EDT	EDD			NDL	
	EBI	EBR	VVBL	VVBI	INBL	NBR
Lane Configurations	s 🍺	~ ~ ~		ર્સ	Y	~
Traffic Vol, veh/h	89	86	57	51	0	0
Future Vol, veh/h	89	86	57	51	0	0
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 Stora	age0#	<u>+</u> _	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles. %	2	2	2	2	2	2
Mymt Flow	97	93	62	55	0	0
	31	30	02		0	0
Major/Minor Ma	ajor1	Μ	ajor2	Μ	linor1	
Conflicting Flow All	0	0	190	0	323	144
Stage 1	-	-	-	-	144	-
Stage 2	-	-	-	-	179	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Sto 1	_	-		-	5 4 2	
Critical Hdwy Sta 2	_	-	_	-	5.42	-
	-	-	2 2 1 0	-	2 510	2 2 1 0
Tollow-up ⊓uwy Det Cop 4 Menouve	- -	- /	1201	-,	674	0.010
Ctore 4	- 15	-	1384	-	0/1	903
Stage 1	-	-	-	-	883	-
Stage 2	-	-	-	-	852	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuv	ver -	-	1384	-	640	903
Mov Cap-2 Maneuv	ver -	-	-	-	640	-
Stage 1	-	-	-	-	883	-
Stage 2	-	-	-	-	813	-
Approach	EB		WB		NB	
HCM Control Delay	, s 0		4.1		0	
HCM LOS					Α	
Minor Lane/Major N	/ivm t N	BLN1	FRI	FRK	WBL	WBL
Capacity (veh/h)		-	-	-	1384	-
HCM Lane V/C Rati	io	-	-	- (0.045	-
HCM Control Delay	' (s)	0	-	-	7.7	0
HCM Lane LOS		Α	-	-	Α	Α
HCM 95th %tile Q(v	/eh)	-	-	-	0.1	-

Intersection						
	4.0					
int Delay, s/ven	1.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configuratio	ns ¥		ţ,			4
Traffic Vol. veh/h	8	17	129	9	15	130
Future Vol. veh/h	8	17	129	9	15	130
Conflicting Peds	#/hr 0	0	0	0	0	
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	Ciop	None	1166	None	1100	None
Storage Longth	-	NONE	-	NOUG	-	NOUL
Vob in Modion Sta		-	-	-	-	-
	rage	+ -	0	-	-	0
	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	62	2	2	2	2	2
Mvmt Flow	9	18	140	10	16	141
Major/Minor	Minor1	N	laior1	N	aior2	
	ui 318	145	U	U	150	U
Stage 1	145	-	-	-	-	-
Stage 2	173	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg	1 5.42	-	-	-	-	-
Critical Hdwy Stg	2 5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	- 2	2.218	-
Pot Cap-1 Maneu	ven675	902	-	-	1431	-
Stage 1	882	-	-	-	-	-
Stage 2	857	-	-	-	-	-
Platoon blocked	%			_	-	_
Mov Cop 1 Monor	10	000	-	-	1/01	-
May Cap 2 Marrie		902	-	-	1431	-
wov Cap-2 Maneu	10000V	-	-	-	-	-
Stage 1	882	-	-	-	-	-
Stage 2	847	-	-	-	-	-
Annroach	\//R		NR		SB	
HCM Control Date					0.0	
	ay, \$9.0		0		0.8	
HCM LOS	A					
Minor Lane/Major	Mymt	NBT		'Bl n1	SBI	SBT
Capacity (yeb/b)	www.			Q11	1/21	001
	otio	-	-		1431	-
		-	-	0.0340	J.UTT	-
HCIVI Control Dela	ay (s)	-	-	9.6	7.5	0
HCM Lane LOS		-	-	A	A	A
HCM 95th %tile Q	(veh)	-	-	0.1	0	-

6

Intersection

Int Delay, s/veh

Movement	NBL	NBT	SBT	SBR	SEL	SER
Lane Configuration	IS	ŧ	1	1	7	1
Traffic Vol, veh/h	440	121	134	66	17	554
Future Vol, veh/h	440	121	134	66	17	554
Conflicting Peds, #	/hr 0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Free
Storage Length	-	-	-	0	1000	-
Veh in Median Stor	rage,-#	ŧ 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	478	132	146	72	18	602

Major/Minor N	Major1	Majo	or2	Minor2		
Conflicting Flow A	JI 218	0	-	0 1234	-	
Stage 1	-	-	-	- 146	-	
Stage 2	-	-	-	- 1088	-	
Critical Hdwy	4.12	-	-	- 6.42	-	
Critical Hdwy Stg	1 -	-	-	- 5.42	-	
Critical Hdwy Stg	2 -	-	-	- 5.42	-	
Follow-up Hdwy	2.218	-	-	- 3.518	-	
Pot Cap-1 Maneu	v e i352	-	-	- 195	0	
Stage 1	-	-	-	- 881	0	
Stage 2	-	-	-	- 323	0	
Platoon blocked, 9	%	-	-	-		
Mov Cap-1 Maneu	u v1e3 •52	-	-	- 121	-	
Mov Cap-2 Maneu	uver -	-	-	- 121	-	
Stage 1	-	-	-	- 545	-	
Stage 2	-	-	-	- 323	-	

Approach	NB	SB	SE	
HCM Control Dela	ay, s 7.1	0	40	
HCM LOS			E	

Minor Lane/Major Mvmt	NBL	NBTSE	ELn16E	ELn2	SBT	SBR
Capacity (veh/h)	1352	-	121	-	-	-
HCM Lane V/C Ratio	0.354	- 0	.153	-	-	-
HCM Control Delay (s)	9.1	0	40	0	-	-
HCM Lane LOS	А	А	Е	Α	-	-
HCM 95th %tile Q(veh)	1.6	-	0.5	-	-	-

	٠	7	1	t	ŧ	~
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y			é.	ħ	
Traffic Volume (vph)	20	17	17	77	60	3
Future Volume (vph)	20	17	17	77	60	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.939				0.994	
Flt Protected	0.973			0.991		
Satd. Flow (prot)	1702	0	0	1846	1852	0
Flt Permitted	0.973			0.991		
Satd. Flow (perm)	1702	0	0	1846	1852	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1333			685	562	
Travel Time (s)	30.3			15.6	12.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	22	18	18	84	65	3
Shared Lane Traffic (%))					
Lane Group Flow (vph)	40	0	0	102	68	0
Enter Blocked Intersect	ion No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane	Э					
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type: 0	Other					
Control Type: Unsignali	zed					
Intersection Capacity U	tilization	21.7%](CU Leve	el of Ser
Analysis Period (min) 1	5					

RESPONSES TO DRC COMMENTS FLD2025-03006 – 405 CORONADO DRIVE

- ENGINEERING
 - 1. Written acknowledgment of all Engineering (including Stormwater, Traffic, Utilities and Environmental) conditions/comments is required.
 - > Acknowledged. Applicant will comply with written acknowledgements to all conditions/comments.
 - Plans submitted have been reviewed for general engineering criteria only, additional comments (including Stormwater, Traffic, Utilities and Environmental) may be forthcoming upon submittal of a Building Permit Application.
 - Acknowledged.
 - 3. Applicant shall be responsible for maintaining all landscaping, hardscaping, and lighting located within Right of Way.
 - > Acknowledged.
 - Work on right-of-way shall require a permit with the appropriate entity.
 Acknowledged.
 - 5. Per Sec. 47.181, bring all sidewalks and ramps adjacent to or as part of the project up to Standards, including ADA.
 - > Acknowledged. Applicant will comply with this request.
 - 6. Contractor shall request an easement inspection prior to any construction near an easement.
 - > Acknowledged. Contractor will comply with this request.
- ENVIRONMENTAL
 - 1. Continue to provide erosion control measures on plan sheet and provide notes detailing erosion control methods. Note: all silt fencing and other erosion control measures will be installed prior to the commencement of site work and maintained throughout the project.
 - Acknowledged.
 - 2. Provide stormwater vault specifications showing the vault provides water quality benefits, and provide a vault maintenance schedule that has been signed and accepted by the owner.
 - > Acknowledged.
- FIRE
 - 1. This building is determined to meet the criteria of a High Rise Building as defined by the Florida Fire Prevention Code 8th Edition. Shall meet the requirements of NFPA 101 2021 edition section 11.8 High-Rise Buildings. Please acknowledge prior to CDB.
 - Acknowledged.
 - 2. Separate plans and permits will be required for Fire Alarm, Fire Sprinkler, Fire Line Underground work. Please acknowledge and describe on plans Prior to CDB.
 - > Acknowledged. See description on plans attached hereto.
 - 3. An approved water supply capable of supplying the required fire flow for fire protection shall be provided. Hydrant shall meets the requirements of NFP 1 2021 Edition Section 18.4 Fire Flow Requirements for Buildings. Please Acknowledge Prior to CDB.

> Acknowledged.

Additional FDC required for this building. Shall meet the requirement of NFPA 14 2019 edition chapter 7 section 7.12 Fire Department Connections. Please acknowledge intent to comply Prior to CDB.
 Acknowledged.

- LAND RESOURCE

- 1. Please provide an irrigation plan.
 - > An irrigation plan will be provided as a condition of permit as approved by the Planning Director.
- 2. Please acknowledge:

Shell, rock, gravel, and any similar material are not acceptable landscape materials per CDC 3-1204.B and will not be approved during the Landscape Final.

- > Acknowledged.
- PLANNING
 - Please note that additional comments may be generated at or after the Development Review Committee (DRC) meeting based on responses to DRC comments. Substantial redesign or unresolved issues will delay the ability to receive a Development Order and another DRC meeting may be required.
 Acknowledged.
 - 2. All plans and supporting documents must match. Additionally, any changes to plans, elevations, and other supporting documents must be coordinated for consistency across all documentation to move forward.
 - Acknowledged.
 - Pursuant to Fla. Stat. § 166.033, "Within 120 days after the municipality has deemed the application complete, or 180 days for applications that require final action through a quasi judicial hearing or a public hearing, the municipality must approve, approve with conditions, or deny the application for a development permit or development order. Both parties may agree to a reasonable request for an extension of time, particularly in the event of a force majeure or other extraordinary circumstance."
 Acknowledged.
 - 4. Revised applications that are not timely resubmitted to address DRC conditions, or for which a request for an extension of time is not received and agreed upon in a timeframe consistent with Florida Statutes, may be denied.
 - Acknowledged.
 - 5. In order to be reviewed by the Community Development Board (CDB) on June 17, 2025, electronic version of all updated materials must be submitted no later than 12:00pm on May 9, 2025.
 Acknowledged.
 - 6. Acknowledge that no perimeter fence or wall is being proposed as part of the project.
 Acknowledged.
 - On page 3 of the Specific Criteria responses response 10 states that wrong development agreement number. Modify with recent approved HDA 2024-09001 approval with the approval date by City Council on February 20, 2025.

> Acknowledged. See revised narrative with correct approval number and date.

- 8. The project is in the Small Motel character district of Beach by Design which supersedes the CDC with respect to development parameters. Any item not covered by Beach by Design defers back to the CDC. The submittal must include consistent and detailed written information and supporting graphics regarding the project meeting all requirements of the Small Motel character district, Design Guidelines, and all other requirements of Beach by Design (BBD). Provide all dimensions, diagrams and details required by Beach by Design. Fully address all requirements of Beach by Design are addressed, with all required dimensions, diagrams, details clearly provided. Specifically: As required to confirm compliance, please provide the following information: building footprint in SF; isometric or axonometric drawings to show offsets of more than five feet and to clearly show building facade dimensions; elevations showing the percentages of windows or architectural decoration; elevations showing the theoretical building volumes.
 - Acknowledged. Please see Beach by Design narrative attached along with sheets A1-10 to A1-12 (Elevations), Sheets A1-13 to A1-14 (Opening & Façade Decoration Percentage Calculations), and Sheet A1-15 (Isometric Building Mass Stepping & Offset Dimensions).
- 9. It appears portions of the proposed building encroaches into the required sight visibility triangles, please modify the proposed building footprint on all plans to comply with the sight visibility triangle requirements of CDC Section 3-904.A.
 - Acknowledged. Plans have been revised to comply with sight visibility triangle requirements (see Landscape Plan and Architectural Sheet A1-1).
- 10. The application page 2 indicates an ISR of 71.9 percent but the Site Data table on C1.1 says 0.868, Please clarify.
 - > Application has been corrected to reflect correct ISR of 0.868.
- 11. The application, page 1 of the Beach by Design Criteria narrative indicates that there is no part of the floor that exceeds 25,000 square feet. Provide a calculation on plans of the actual building area between 45 and 100 feet to confirm compliance.
 - Acknowledged and confirm compliance. Please see Sheets A1-6 to A1-9 for building area calculations for levels above 45 feet. Floor plates range between 16,500sf to 23,500sf between 45-100ft in height.
- 12. Provide language regarding the proposed location of the mechanical equipment and please clarify how (1) this will be accomplished and (2) how the equipment will be screened. The note must include the following details; "Mechanical equipment will be screened from view from adjacent properties and rights-of-way with fencing and or landscaping."
 - Acknowledged and provided on plans. All rooftop and site mechanical shall be fully screened from view from adjacent properties and rights-of-way with fencing and/or landscaping.
- 13. Provide all dimensions of all on-street parking spaces and confirm compliance with visibility requirements to the satisfaction of Public Works.
 - > Acknowledged and confirm compliance; dimensions provided on plans.
- 14. Provide the dimensions of all building projections and overhangs and confirm compliance with the CDC Sec. 3-908.D.1 including but not limited to a maximum 24 inches of extensions into a setback area that linearly extend 50 percent or less of the width of the building.
 - Acknowledged and confirm compliance; dimensions provided on plans (see Architectural Sheet A1-1 and Civil Plans).

- 15. Remove proposed signage from all plans, including elevations.
 - > Acknowledged and removed.
- 16. Provide details, dimensions and locations of the optional water feature on all Site Plans or remove from the east elevation.
 - Acknowledged and removed.
- 17. Although it appears on all Floor Plans that all parking garage spaces meet the minimum width—which means structural support columns do not encroach into parking spaces. Please acknowledge and confirm.
 - Acknowledged and confirmed. All standard parking spaces are 9ft wide by 18ft long, exclusive of columns. All handicap spaces are 12ft by 18ft with the 5ft by 18ft circulation clearance required. Please see Architectural Sheets A1-1 to A1-5 for parking levels.
- PUBLIC UTILITIES
 - Acknowledge and call out on drawings - Contractor is required to field verify the existing and locations
 of all underground utilities and other features prior to proceeding with any proposed construction. The
 contractor may consult the utility owner's record drawings, but the utility owner and the engineering do
 not guarantee, by implication or otherwise, the accuracy of these record drawings. Site contractor shall
 be financial for any modifications required other than shown on plans. The contractor shall verify the
 locations, elevations, and dimensions of all existing utilities and shall notify the engineer in writing of
 any deviation from the plans.
 - Acknowledged and will comply.
 - 2. Acknowledge and call out on drawings -If the proposed project necessitates infrastructure modifications to satisfy the site-specific water capacity and pressure requirements and/or wastewater capacity requirements, the modifications shall be completed by the applicant and at their expense. If underground water mains and hydrants are to be installed, the installation shall be completed and in service prior to construction in accordance with Fire Department requirements.
 - Acknowledged and will comply.
 - 3. Acknowledge and call out on drawings -The contractor shall coordinate with the city regarding existing water meters, backflow devices and meter box removal, along with sewer lateral abandonment including RCW service prior to finalization of plans to the satisfaction of Public Utilities Department Staff.
 > Acknowledged and will comply.
 - 4. Acknowledge and call out on drawings -The existing gravity main size and new purposed lateral size, including pipe material to be used, shall be included on the building permit plans to the satisfaction of Public Utilities Department Staff.
 - Acknowledged and will comply.
 - 5. Acknowledge and call out on drawings -All water meters, Fire detector assembly and fire hydrants to have uninstructed clearance around devices, also apparatus and device not to be located behind fences Public Utilities shall have access.
 - Acknowledged and will comply.
 - 6. Acknowledge and call out on drawings -Reclaimed water is available for the project's irrigation needs, please call out RCW service size and location on drawings.

- Acknowledged and will comply.
- 7. Consideration RCW service as option for cooling tower water make up.
 - Acknowledged and will comply.
- 8. Acknowledge and call out on drawings -at this time, Fire hydrants not permit to be connected to RCW main, please correct drawings shown on C5.1
 - > Acknowledged and will comply.
- 9. Acknowledge and call out on drawings -All sewer pipe and manhole shall be considered privately owned and maintained by others within project limits.
 - Acknowledged and will comply.
- SOLID WASTE
 - 1. Where will the compactor be located? Compactor should be secluded to keep areas from interfering with one another.
 - > See revised plans showing compactor. Acknowledged.
 - 2. Every solid waste vehicle is higher than 11ft. Please show a solid waste truck template for servicing purposes. Solid waste vehicles should not have to interfere with other vehicles when servicing the property.
 - See revised plans showing template. Acknowledged. Solid waste is handled in the south service area. The waste/loading area is exclusively for waste and loading. No public vehicular access is routed through the area during waste removal. A portion of the waste area is revised to 23ft in height for waste truck use. Waste dumpsters are staged within the loading space. Minimum height throughout the remainder of the loading area is 11ft.
- STORMWATER
 - 1. Please acknowledge on the response letter of the condition below: Per City of Clearwater Stormwater Drainage Criteria, construction plans to be submitted at the building permit application shall show proposed lot grading including directing runoff to the designed destination, said grading plan when implemented shall not adversely impact adjoining properties.
 - > Acknowledged and will submit with building permit application.
 - 2. Provide a comprehensive drainage narrative with supporting drainage calculations and geotechnical report demonstrating that the redevelopment criteria and underground chambers requirements of City of Clearwater Drainage Criteria Manual are met.
 - > Acknowledged and will submit with building permit application.
- TRAFFIC ENGINEERING
 - 1. Please provide confirmation that no ramp with parking exceeds 6% slope. Reference: Section 3 1402.I.10.
 - Acknowledged and noted on plans. All ramps are 6% maximum slope.
 - 2. SVTs:
 - --1—Missing SVTs at corners along 5th St.
 - --2—Multiple minor SVT Encroachments have been identified:
 - --a—Loading/Solid Waste area by 5 feet.
 - --b—South entry by 2-3 feet on both sides.

> Acknowledged and noted on plans. Please see Architectural Sheet A1-1 and Civil Plans.