

# APPENDIX J

## TRAFFIC IMPACT ANALYSIS

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# TRAFFIC IMPACT ANALYSIS AND PARKING ANALYSIS

SOUTH SHORES CHURCH MASTER PLAN  
DANA POINT, CALIFORNIA

This traffic study has been prepared under the supervision of  
Meghan Macias, T.E.

Signed *Meghan Macias*



LSA

July 2014

# TRAFFIC IMPACT ANALYSIS AND PARKING ANALYSIS

SOUTH SHORES CHURCH MASTER PLAN  
DANA POINT, CALIFORNIA

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LSA

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## INTRODUCTION

The purpose of this Traffic Impact Analysis (TIA) and Parking Analysis is to identify the potential traffic, circulation, and parking impacts associated with the South Shores Church Master Plan Project (project) in the City of Dana Point (City). The project includes demolition of the existing Preschool, Administration and Fellowship Hall, Chapel (23,467 square feet [sf] of building space), and revisions to the surface parking lot. The project proposes to construct a new Preschool/Administration Building, two Christian Education Buildings, a Community Life Center (70,284 sf of new building space), and a two-level, partially subterranean parking structure.

The project site is located at the southeast corner of the signalized intersection of Crown Valley Parkway/Sea Island Drive in the City. Access to the site is provided via the east leg of the Crown Valley Parkway/Sea Island Drive intersection and a right-in/right-out (RIRO) driveway on Crown Valley Parkway. Figure 1 illustrates the project location.

This TIA addresses three general issues associated with the development of the proposed project:

1. Increases in traffic volumes at nearby intersections.
2. Adequacy of the proposed access locations and on-site circulation.
3. Adequacy of the proposed parking supply.

This TIA examines the following four scenarios:

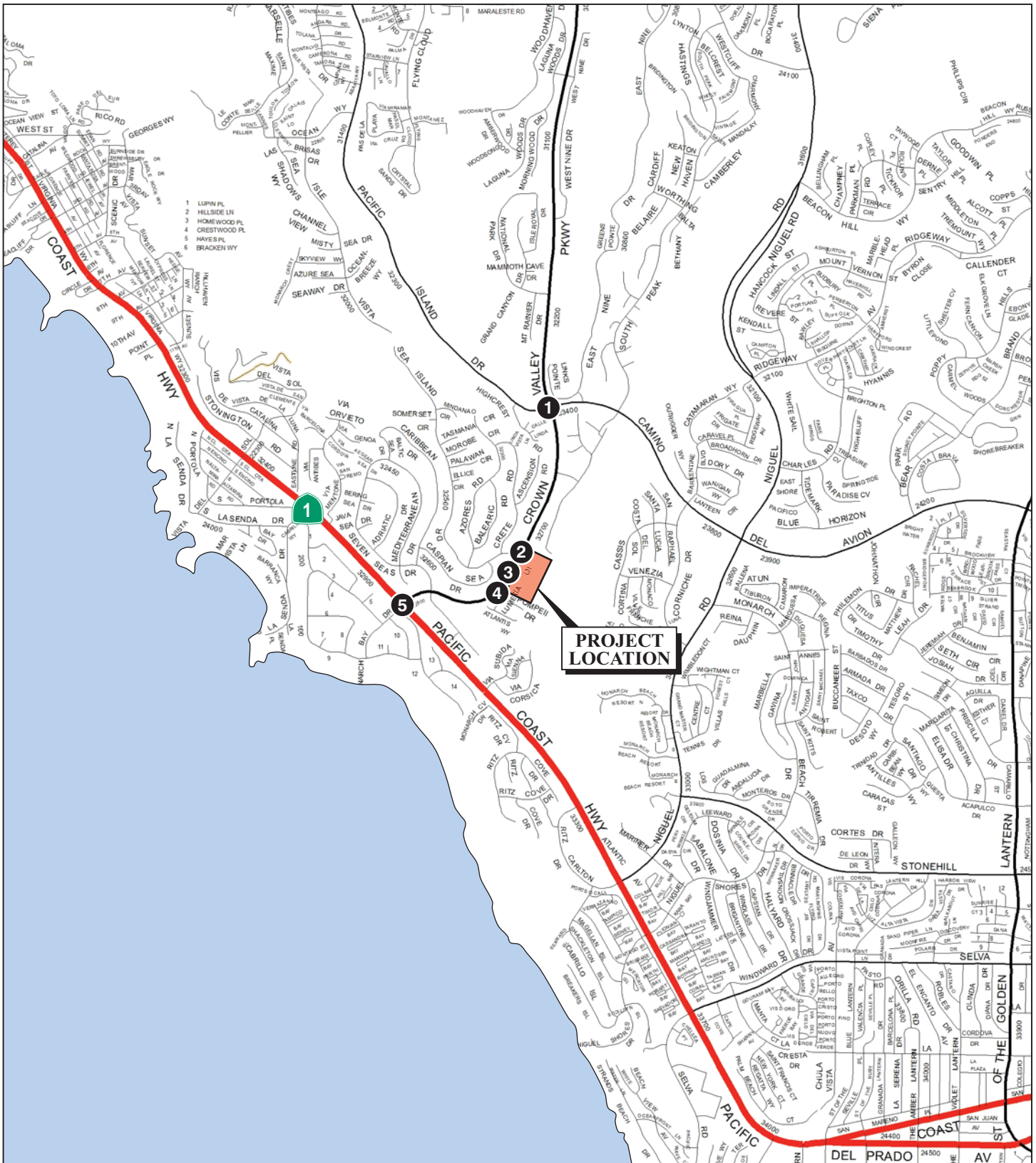
1. Existing Conditions (2014)
2. Existing Plus Project Conditions
3. Future Conditions (2025 – corresponding to project completion)
4. Future Plus Project Conditions

The following analysis periods have been evaluated:

1. Weekday a.m. peak hour (between 7:00 a.m. and 9:00 a.m.)
2. Weekday p.m. peak hour (between 4:00 p.m. and 6:00 p.m.)
3. Sunday peak hour (between 11:00 a.m. and 1:00 p.m.)

## PROJECT DESCRIPTION

The existing South Shores Church site includes a 19,078 sf Sanctuary, a 3,765 sf Chapel, a 12,985 sf Administration and Fellowship Hall, a 6,717 sf Preschool, and 228 surface parking spaces, as shown in Table A.

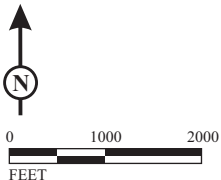


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LEGEND

FIGURE 1

1 - Study Area Intersections



South Shores Church Master Plan  
 Project Location and  
 Study Area Intersections



**Table A: Existing Buildings Summary**

| <b>Existing Buildings (and Parking)</b> | <b>sf</b>     |
|---|---------------|
| Sanctuary                               | 19,078        |
| Chapel                                  | 3,765         |
| Administration and Fellowship Hall      | 12,985        |
| Preschool                               | 6,717         |
| Surface Parking (228 spaces)            | -             |
| <b>Total</b>                            | <b>42,545</b> |

sf = square feet

The South Shores Church proposes to demolish the existing Preschool, Administration and Fellowship Hall, and Chapel. The total building demolition is 23,467 sf. At project buildout, the existing 19,078 sf Sanctuary will remain. The proposed project will construct 70,284 sf of new building space, including a 15,115 sf Preschool/Administration Building, a 24,314 sf Community Life Center, a 15,399 sf Christian Education Building 1, and a 15,456 sf Christian Education Building 2. The project will also construct a two-level parking structure with 352 spaces (176 spaces on each level) with 59 surface parking spaces.

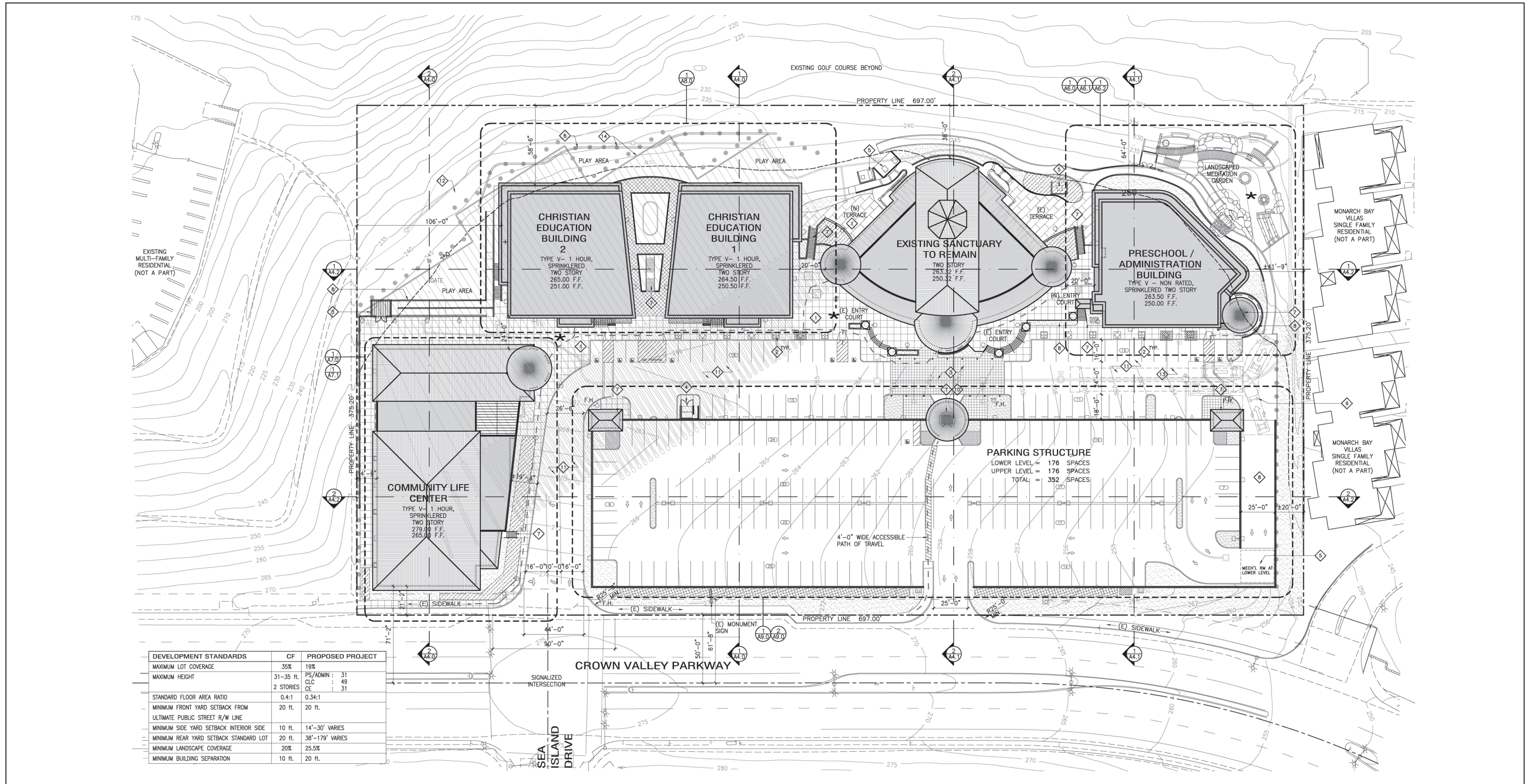
Figure 2 illustrates the project site plan. Access to the project site will continue to be provided at a full-access driveway (the east leg of the signalized intersection of Crown Valley Parkway/Sea Island Drive) and an unsignalized RIRO driveway along Crown Valley Parkway.

Table B summarizes the proposed project buildings and identifies the changes from existing conditions. As shown in this table, the proposed project results in a net increase of 46,817 sf of building space.

**Table B: Project Buildings Summary**

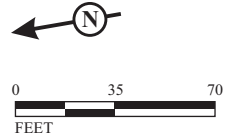
| <b>Existing Buildings (and Parking)</b> | <b>sf</b>     | <b>Proposed Project Buildings (and Parking)</b>       | <b>sf</b>     |
|---|---------------|---|---------------|
| Sanctuary                               | 19,078        | Sanctuary (to remain)                                 | 19,078        |
| Chapel                                  | 3,765         | Chapel (to be demolished)                             | -             |
| Administration and Fellowship Hall      | 12,985        | Administration and Fellowship Hall (to be demolished) | -             |
| Preschool                               | 6,717         | Preschool (to be demolished)                          | -             |
| Surface Parking (228 spaces)            | -             | Surface Parking (59 net spaces)                       | -             |
|   |               | Preschool/Administration Building (new)               | 15,115        |
|   |               | Community Life Center (new)                           | 24,314        |
|   |               | Christian Education Building 1 (new)                  | 15,399        |
|   |               | Christian Education Building 2 (new)                  | 15,456        |
|   |               | Parking Structure (352 new spaces)                    | -             |
| <b>Total Existing</b>                   | <b>42,545</b> | <b>Total Project</b>                                  | <b>89,362</b> |

sf = square feet



| DEVELOPMENT STANDARDS   | CF        | PROPOSED PROJECT                     |
|---|-----------|--------------------------------------|
| MAXIMUM LOT COVERAGE  | 35%       | 19%                                  |
| MAXIMUM HEIGHT  | 31-35 ft. | PS/ADMIN : 31<br>CLC : 49<br>CE : 31 |
| STANDARD FLOOR AREA RATIO                                       | 0.4:1     | 0.34:1                               |
| MINIMUM FRONT YARD SETBACK FROM ULTIMATE PUBLIC STREET R/W LINE | 20 ft.    | 20 ft.                               |
| MINIMUM SIDE YARD SETBACK INTERIOR SIDE                         | 10 ft.    | 14'-30' VARIES                       |
| MINIMUM REAR YARD SETBACK STANDARD LOT                          | 20 ft.    | 38'-179' VARIES                      |
| MINIMUM LANDSCAPE COVERAGE                                      | 20%       | 25.5%                                |
| MINIMUM BUILDING SEPARATION                                     | 10 ft.    | 20 ft.                               |

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**KEY NOTES**

- 1 NEW HARDSCAPE
- 2 NEW TREE WELL
- 3 NEW ENHANCED PAVING
- 4 NEW CMU TRASH ENCLOSURE WITH WOOD TRELLIS
- 5 NEW MECHANICAL EQUIPMENT ENCLOSURE BELOW
- 6 NEW RETAINING WALL: "SOIL RETENTION" PLANTABLE, STACKING WALL SYSTEM. WALL HEIGHT VARIES
- 7 NEW STAIRS
- 8 NEW RAMP
- 9 OCFA HAMMERHEAD
- 10 NEW ELEVATOR
- 11 AC PAVING
- 12 EARTHEN NATURE TRAIL, FIELD VERIFY
- 13 UNDERGROUND DETENTION BASIN, CONSTRUCTED PHASE 1A
- 14 CAISSONS, REACTION WALL & TIE BACKS BELOW GRADE

**LEGEND**

- CENTERLINE
- BUILDING SETBACK
- PROPERTY LINE
- ACCESSIBLE PATH OF TRAVEL
- TOPOGRAPHIC CONTOUR LINE
- LANDSCAPED AREA
- HARDSCAPE
- BUILDING
- POLE MOUNTED AREA LIGHT
- PEDESTRIAN AREA LIGHT
- WALL MOUNTED AREA LIGHTS. SEE SHEET A15.0 LIGHTING PLAN FOR MORE INFORMATION
- PROPOSED LOCATION OF "PUBLIC ART"

**BMP's**

- REFER TO CIVIL ENGINEERS WOMP EXHIBIT FOR PROPOSED BMP's
- BIORETENTION WITH UNDERDRAINS (BIO-1) DOWNSPOUT PLANTER BOXES - BMP-1
- VEGETATED SWALE (BIO-2) BIOSWALE / DEPRESSED LANDSCAPE - BMP-2
- PROPRIETARY BIO-FILTRATION (BIO-7) FILTERRA SYSTEM - BMP-3
- STORM DRAIN

**PARKING COUNT**

- 59 ON SITE PARKING SPACES
- 176 SPACES LOWER LEVEL PARKING STRUCTURE
- 176 SPACES UPPER LEVEL PARKING STRUCTURE
- 411 SPACES TOTAL

FIGURE 2

The project will be constructed in five phases (of which Phase 1 has five subphases) over an estimated 10-year period (with gaps between each phase). Each phase and duration is listed below.

- **Phase 1A (Construction of Preschool/Administration Building):** 13 months
- **Phase 1B (Demolition of Existing Buildings):** 3 months
- **Phase 1B-E1 (Earthwork):** 3 months
- **Phase 1B-E2 (Grading):** 3 months
- **Phase 1C (Construction of Community Life Center Building):** 12 months
- **Phase 2 (Construction of Christian Education Building 1):** 12 months
- **Phase 3 (Construction of Christian Education Building 2):** 12 months
- **Phase 4 (Construction of 1st Half of Parking Structure):** 7 months
- **Phase 5 (Construction of 2nd Half of Parking Structure):** 7 months

## **METHODOLOGY**

This TIA is prepared consistent with the objectives and requirements of the City's General Plan Circulation Element (1995), the Orange County Congestion Management Program (CMP) (2013), and applicable provisions of the California Environmental Quality Act (CEQA), including disclosure of project impacts in both existing and future (cumulative) horizon years.

### **Study Area**

Based on coordination with the City, five intersections are analyzed in this TIA. Figure 1 shows the project location and the following study area intersections:

1. Crown Valley Parkway/Camino Del Avion
2. Crown Valley Parkway/Sea Island Drive–full-access driveway
3. Crown Valley Parkway/RIRO driveway
4. Crown Valley Parkway/Lumeria Lane
5. Crown Valley Parkway/Pacific Coast Highway (PCH)

### **Intersection Level of Service Methodology**

Level of service (LOS) is a qualitative assessment of the quantitative effects of such factors as traffic volume, roadway geometrics, speed, delay, and maneuverability on roadway and intersection operations. Typical intersection operations by LOS grade are as follows:

| Level of Service | Description  |
|------------------|--|
| A                | No approach phase is fully utilized by traffic, and no vehicle waits longer than one red indication. Typically, the approach appears quite open, turns are made easily, and nearly all drivers find freedom of operation.  |
| B                | This service level represents stable operation, where an occasional approach phase is fully utilized, and a substantial number are nearing full use. Many drivers begin to feel restricted within platoons of vehicles.  |
| C                | This level still represents stable operating conditions. Occasionally, drivers may have to wait through more than one red signal indication, and backups may develop behind turning vehicles. Most drivers feel somewhat restricted, but not objectionably so.   |
| D                | This level encompasses a zone of increasing restriction approaching instability at the intersection. Delays to approaching vehicles may be substantial during short peaks within the peak period; however, enough cycles with lower demand occur to permit periodic clearance of developing queues, thus preventing excessive backups. |
| E                | Capacity occurs at the upper end of this service level. It represents the most vehicles that any particular intersection approach can accommodate. Full utilization of every signal cycle is attained no matter how great the demand.  |
| F                | This level describes forced-flow operations at low speeds, where volumes exceed capacity. These conditions usually result from queues of vehicles backing up from a restriction downstream.  |

Traffix (Version 8.0 R1) computer software was utilized to determine the study area intersection LOS based on the intersection capacity utilization (ICU) methodology for signalized intersections and the 2000 Highway Capacity Manual (HCM) methodology for unsignalized intersections.

Consistent with the City’s requirements, the ICU methodology compares the volume-to-capacity (v/c) ratios of conflicting turn movements at a signalized intersection, sums up these critical conflicting v/c ratios for each intersection approach, and determines the overall ICU. The resulting ICU is expressed in terms of LOS, where LOS A represents free-flow activity and LOS F represents overcapacity operation. The relationship between LOS and the ICU value (i.e., v/c ratio) is as follows:

| Level of Service | Volume-to-Capacity (ICU Methodology) |
|------------------|--------------------------------------|
| A                | ≤0.60                                |
| B                | >0.60 and ≤0.70                      |
| C                | >0.70 and ≤0.80                      |
| D                | >0.80 and ≤0.90                      |
| E                | >0.90 and ≤1.00                      |
| F                | >1.00                                |

ICU = Intersection Capacity Utilization

In addition to the ICU methodology of calculating study area intersection LOS, the HCM methodology was used. The HCM intersection methodology presents LOS in terms of delay (in seconds per vehicle). The resulting delay is expressed in terms of LOS, as in the ICU methodology. The relationship between LOS and the delay at an unsignalized intersection is demonstrated in the following table:



| Level of Service | Unsignalized Intersection Delay (seconds) per Vehicle |
|------------------|---|
| A                | ≤10.0   |
| B                | >10.0 and ≤15.0                                       |
| C                | >15.0 and ≤25.0                                       |
| D                | >25.0 and ≤35.0                                       |
| E                | >35.0 and ≤50.0                                       |
| F                | >50.0   |

The study area intersection LOS analysis was conducted for the weekday a.m. peak hour, the weekday p.m. peak hour, and the Sunday peak hour.

### Threshold of Significance

According to the City of Dana Point General Plan Circulation Element (1995), LOS C is the minimum acceptable condition that should be maintained during the peak commute hours for Primary Arterials, Secondary Arterials, and local streets. LOS D is the minimum acceptable condition that should be maintained during the peak commute hours for Major Arterials and State highways. LOS E is the minimum acceptable condition that should be maintained for CMP-designated roadways. However, the City Public Works Department strives to maintain LOS C as the lowest service level for impacts to signalized intersections for development projects.

For purposes of this traffic impact analysis, a minimum acceptable service level of LOS C has been applied to signalized study area intersections. For unsignalized study area intersections, the LOS thresholds outlined in the Circulation Element have been applied. For example, the minimum acceptable LOS for an unsignalized intersection along a Major Arterial such as Crown Valley Parkway is LOS D.

## EXISTING BASELINE CONDITIONS

### Existing Circulation System

Key roadways in the vicinity of the proposed project are as follows:

- Crown Valley Parkway:** Crown Valley Parkway is a divided four-lane, north-south roadway providing direct access to the project site at the Sea Island Drive–full-access driveway. It is designated as a Major Arterial in the City’s General Plan Circulation Element and the Orange County Master Plan of Arterial Highways (MPAH). The speed limit along Crown Valley Parkway is 45 miles per hour (mph) between Pacific Island Drive and Sea Island Drive, and 35 mph between Sea Island Drive and PCH. Curbside parking is permitted on both sides of the roadway in select locations, including along the project frontage between Sea Island Drive and Lumeria Lane.
- Pacific Coast Highway:** PCH is a divided six-lane, east–west roadway located south of the project site. It is a Caltrans and Orange County CMP facility with a speed limit of 50 mph in this area. PCH is designated as a Major Arterial Highway in the City’s General Plan Circulation

Element and the Orange County MPAH. It is also a CMP facility. Curbside parking is permitted on both sides of the highway in select locations.

- **Camino Del Avion:** Camino Del Avion is a divided, four-lane east–west roadway located north of the project site. It is designated as a Primary Arterial in the City’s General Plan Circulation Element and the Orange County MPAH, and is owned by the City of Laguna Niguel. The speed limit is 45 mph along Camino Del Avion. Curbside parking is prohibited on both sides of the roadway.
- **Sea Island Drive:** Sea Island Drive is an undivided two-lane, local residential street. Direct access to the project site is provided at its terminus (i.e., full-access driveway) at Crown Valley Parkway. The speed limit is 25 mph along Sea Island Drive. Curbside parking is permitted on both sides of the roadway in select locations.
- **Lumeria Lane:** Lumeria Lane is an undivided two-lane, private road that serves the gated Monarch Bay Villas residences located south of the project site.

The study area intersection geometrics are shown on Figure 3.

### Existing Pedestrian and Bicycle Facilities

Pedestrian sidewalks are located on each side of Crown Valley Parkway, Camino Del Avion, Sea Island Drive, and PCH. Pedestrian crossings are provided at all study area intersections with the exception of Crown Valley Parkway/Lumeria Lane.

According to the Bicycle and Pedestrian Trail Master Plan, February 2006, Crown Valley Parkway and Camino Del Avion are designated as Class II bikeways, and PCH is a designated Class III bikeway. A future Class II bike lane is proposed along PCH and a bicycle parking station is proposed on the northeast corner of the intersection of Crown Valley Parkway/PCH.

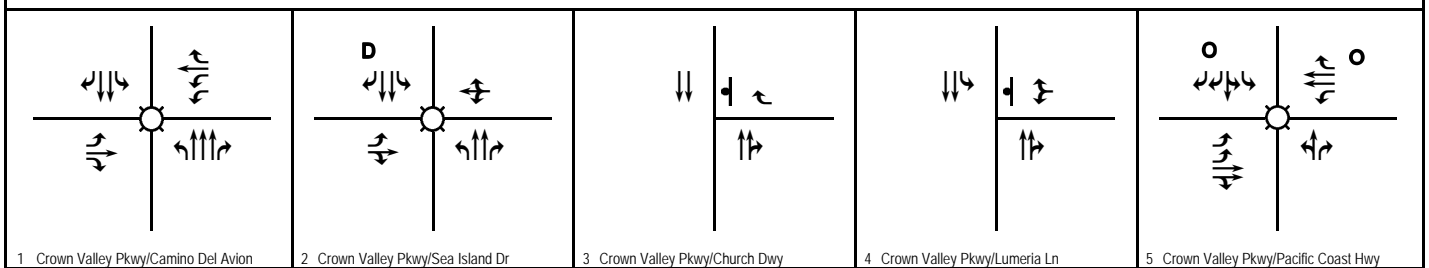
### Existing Transit Service

Transit service is provided within the project vicinity by the Orange County Transportation Authority (OCTA). OCTA bus stops are located adjacent to the project site at the northeast and southwest corners of the Crown Valley Parkway/Sea Island Drive–full-access driveway. Bus stops are also located south of the project site on both sides of Crown Valley Parkway and PCH. The routes and schedule of each transit service route provided below were verified as of October 2013.

- **Route 1:** Route 1 originates at the Long Beach Transit Gallery (Shelter D) and ends in San Clemente while passing through Dana Point along PCH. The bus operates between 5:30 a.m. and 10:40 p.m., Monday through Friday, and between 5:30 a.m. and 9:30 p.m. on weekends and holidays.
- **Route 85:** Route 85 originates at Mission Viejo and ends at Dana Point High School. The bus operates between 5:35 a.m. and 8:53 p.m., Monday through Friday, and between 6:52 a.m. and 7:51 p.m. on Saturdays.



**LEGEND**  
**1** - Study Area Intersections



**LSA**

Legend

- ⊙ Signal
- ⊠ Defacto Right-Turn Lane
- ⊣ Stop Sign
- Right-Turn Overlap

FIGURE 3

South Shores Church Master Plan

Existing Intersection Geometries and Traffic Control Devices

## Existing Traffic Volumes and LOS Analysis

Peak-hour intersection turn volumes were provided by City staff (from other projects/sources) and collected by National Data & Surveying Services (NDS) in September 2012 and April 2014 for the study area intersections. The study area traffic volumes have not dramatically changed from 2012 to 2014. The existing peak-hour volumes for the study area intersections are shown on Figures 4a and 4b. Appendix A provides the existing peak-hour count data.

Table C summarizes the results of the peak-hour LOS analysis for the five study area intersections. As previously discussed, the LOS was determined using the ICU methodology for signalized intersections and the HCM methodology for unsignalized intersections. As shown in Table C, all study area intersections currently operate at satisfactory LOS (defined as LOS C or better for signalized intersections and LOS D or better for unsignalized intersections) during the weekday and Sunday peak hours. The existing (and existing plus project) LOS worksheets are contained in Appendix B.

## FUTURE CONDITIONS

### Cumulative Projects

A future long-range analysis (corresponding to project completion) was prepared. According to the project applicant, the project will be completed in 2025. The future year 2025 is an 11-year horizon from the existing 2014 conditions. LSA Associates, Inc. (LSA) applied an ambient growth rate of 1 percent per year to the traffic volumes (i.e., 13 percent total growth to the 2012 weekday volumes and 11 percent total growth to the 2014 Sunday volumes) and manually assigned trips generated by approved/pending (cumulative) projects to develop a future 2025 traffic condition.

A list of cumulative projects was reviewed to determine whether projects in the vicinity of the project site should be included in the future baseline condition. With concurrence from the City, the following six cumulative projects would affect the project study area:

- 1. Headlands Specific Plan:** 125 single-family dwelling units (DU); 65-room Seaside Inn that includes meeting/function space, restaurant, and lounge; 13,000 sf of commercial uses; park and recreation areas; visitor recreation (community) facilities; and recreation/open space and visitor commercial areas of up to 40,000 sf.
- 2. Dana Point Town Center Plan:** A combination of land use regulatory and zoning changes to allow mixed-use and transportation capital improvements.
- 3. Dana Point Harbor Revitalization:** Establishment of a Commercial Core and replacement/remodel of all existing retail and restaurant buildings.
- 4. Ritz Carlton Expansion:** Addition of 32 hotel rooms and 41,000 sf of amenities.
- 5. Doheny Hotel:** 258-room hotel with a 12,103 sf conference center/banquet facility and a 7,087 sf restaurant.
- 6. 34202 Del Obispo Street:** 168 residential condominium units with 2,471 sf of commercial space.





|   |              |              |              |             |          |           |           |             |           |             |           |             |           |             |             |             |  |           |              |           |         |           |         |           |           |           |           |              |         |           |         |           |           |   |               |         |         |              |               |         |         |              |   |               |         |         |         |               |         |         |         |              |         |         |              |  |             |           |             |             |             |             |           |           |             |             |           |           |             |           |             |             |
|---|--------------|--------------|--------------|-------------|----------|-----------|-----------|-------------|-----------|-------------|-----------|-------------|-----------|-------------|-------------|-------------|--|-----------|--------------|-----------|---------|-----------|---------|-----------|-----------|-----------|-----------|--------------|---------|-----------|---------|-----------|-----------|---|---------------|---------|---------|--------------|---------------|---------|---------|--------------|---|---------------|---------|---------|---------|---------------|---------|---------|---------|--------------|---------|---------|--------------|--|-------------|-----------|-------------|-------------|-------------|-------------|-----------|-----------|-------------|-------------|-----------|-----------|-------------|-----------|-------------|-------------|
| <table border="1"> <tr><td>← 14 / 9</td><td>↘ 792 / 790</td><td>↗ 129 / 301</td><td>↖ 203 / 133</td></tr> <tr><td>↖ 4 / 13</td><td>↘ 36 / 72</td><td>↗ 47 / 62</td><td>↖ 615 / 818</td></tr> <tr><td>↖ 94 / 98</td><td>↘ 102 / 206</td><td>↗ 47 / 62</td><td>↖ 615 / 818</td></tr> <tr><td>↖ 47 / 62</td><td>↘ 615 / 818</td><td>↗ 102 / 206</td><td>↖ 203 / 133</td></tr> </table> <p>1 Crown Valley Pkwy/Camino Del Avion</p> | ← 14 / 9     | ↘ 792 / 790  | ↗ 129 / 301  | ↖ 203 / 133 | ↖ 4 / 13 | ↘ 36 / 72 | ↗ 47 / 62 | ↖ 615 / 818 | ↖ 94 / 98 | ↘ 102 / 206 | ↗ 47 / 62 | ↖ 615 / 818 | ↖ 47 / 62 | ↘ 615 / 818 | ↗ 102 / 206 | ↖ 203 / 133 | <table border="1"> <tr><td>← 43 / 47</td><td>↘ 1072 / 993</td><td>↗ 48 / 16</td><td>↖ 5 / 6</td></tr> <tr><td>↖ 44 / 42</td><td>↘ 3 / 0</td><td>↗ 30 / 27</td><td>↖ 18 / 26</td></tr> <tr><td>↖ 30 / 27</td><td>↘ 18 / 26</td><td>↗ 706 / 1015</td><td>↖ 3 / 2</td></tr> <tr><td>↖ 44 / 42</td><td>↘ 3 / 0</td><td>↗ 30 / 27</td><td>↖ 18 / 26</td></tr> </table> <p>2 Crown Valley Pkwy/Sea Island Dr</p> | ← 43 / 47 | ↘ 1072 / 993 | ↗ 48 / 16 | ↖ 5 / 6 | ↖ 44 / 42 | ↘ 3 / 0 | ↗ 30 / 27 | ↖ 18 / 26 | ↖ 30 / 27 | ↘ 18 / 26 | ↗ 706 / 1015 | ↖ 3 / 2 | ↖ 44 / 42 | ↘ 3 / 0 | ↗ 30 / 27 | ↖ 18 / 26 | <table border="1"> <tr><td>← 1105 / 1028</td><td>↘ 0 / 2</td><td>↗ 7 / 0</td><td>↖ 727 / 1043</td></tr> <tr><td>↖ 1105 / 1028</td><td>↘ 0 / 2</td><td>↗ 7 / 0</td><td>↖ 727 / 1043</td></tr> </table> <p>3 Crown Valley Pkwy/Church Dwy</p> | ← 1105 / 1028 | ↘ 0 / 2 | ↗ 7 / 0 | ↖ 727 / 1043 | ↖ 1105 / 1028 | ↘ 0 / 2 | ↗ 7 / 0 | ↖ 727 / 1043 | <table border="1"> <tr><td>← 1105 / 1028</td><td>↘ 3 / 7</td><td>↗ 4 / 5</td><td>↖ 3 / 4</td></tr> <tr><td>↖ 1105 / 1028</td><td>↘ 3 / 7</td><td>↗ 4 / 5</td><td>↖ 3 / 4</td></tr> <tr><td>↖ 727 / 1043</td><td>↘ 2 / 6</td><td>↗ 2 / 6</td><td>↖ 727 / 1043</td></tr> </table> <p>4 Crown Valley Pkwy/Lumeria Ln</p> | ← 1105 / 1028 | ↘ 3 / 7 | ↗ 4 / 5 | ↖ 3 / 4 | ↖ 1105 / 1028 | ↘ 3 / 7 | ↗ 4 / 5 | ↖ 3 / 4 | ↖ 727 / 1043 | ↘ 2 / 6 | ↗ 2 / 6 | ↖ 727 / 1043 | <table border="1"> <tr><td>← 776 / 470</td><td>↘ 33 / 40</td><td>↗ 198 / 215</td><td>↖ 193 / 216</td></tr> <tr><td>↖ 421 / 721</td><td>↘ 503 / 961</td><td>↗ 10 / 12</td><td>↖ 13 / 12</td></tr> <tr><td>↖ 421 / 721</td><td>↘ 503 / 961</td><td>↗ 10 / 12</td><td>↖ 13 / 12</td></tr> <tr><td>↖ 776 / 470</td><td>↘ 33 / 40</td><td>↗ 198 / 215</td><td>↖ 193 / 216</td></tr> </table> <p>5 Crown Valley Pkwy/Pacific Coast Hwy</p> | ← 776 / 470 | ↘ 33 / 40 | ↗ 198 / 215 | ↖ 193 / 216 | ↖ 421 / 721 | ↘ 503 / 961 | ↗ 10 / 12 | ↖ 13 / 12 | ↖ 421 / 721 | ↘ 503 / 961 | ↗ 10 / 12 | ↖ 13 / 12 | ↖ 776 / 470 | ↘ 33 / 40 | ↗ 198 / 215 | ↖ 193 / 216 |
| ← 14 / 9  | ↘ 792 / 790  | ↗ 129 / 301  | ↖ 203 / 133  |             |          |           |           |             |           |             |           |             |           |             |             |             |  |           |              |           |         |           |         |           |           |           |           |              |         |           |         |           |           |   |               |         |         |              |               |         |         |              |   |               |         |         |         |               |         |         |         |              |         |         |              |  |             |           |             |             |             |             |           |           |             |             |           |           |             |           |             |             |
| ↖ 4 / 13  | ↘ 36 / 72    | ↗ 47 / 62    | ↖ 615 / 818  |             |          |           |           |             |           |             |           |             |           |             |             |             |  |           |              |           |         |           |         |           |           |           |           |              |         |           |         |           |           |   |               |         |         |              |               |         |         |              |   |               |         |         |         |               |         |         |         |              |         |         |              |  |             |           |             |             |             |             |           |           |             |             |           |           |             |           |             |             |
| ↖ 94 / 98   | ↘ 102 / 206  | ↗ 47 / 62    | ↖ 615 / 818  |             |          |           |           |             |           |             |           |             |           |             |             |             |  |           |              |           |         |           |         |           |           |           |           |              |         |           |         |           |           |   |               |         |         |              |               |         |         |              |   |               |         |         |         |               |         |         |         |              |         |         |              |  |             |           |             |             |             |             |           |           |             |             |           |           |             |           |             |             |
| ↖ 47 / 62   | ↘ 615 / 818  | ↗ 102 / 206  | ↖ 203 / 133  |             |          |           |           |             |           |             |           |             |           |             |             |             |  |           |              |           |         |           |         |           |           |           |           |              |         |           |         |           |           |   |               |         |         |              |               |         |         |              |   |               |         |         |         |               |         |         |         |              |         |         |              |  |             |           |             |             |             |             |           |           |             |             |           |           |             |           |             |             |
| ← 43 / 47   | ↘ 1072 / 993 | ↗ 48 / 16    | ↖ 5 / 6      |             |          |           |           |             |           |             |           |             |           |             |             |             |  |           |              |           |         |           |         |           |           |           |           |              |         |           |         |           |           |   |               |         |         |              |               |         |         |              |   |               |         |         |         |               |         |         |         |              |         |         |              |  |             |           |             |             |             |             |           |           |             |             |           |           |             |           |             |             |
| ↖ 44 / 42   | ↘ 3 / 0      | ↗ 30 / 27    | ↖ 18 / 26    |             |          |           |           |             |           |             |           |             |           |             |             |             |  |           |              |           |         |           |         |           |           |           |           |              |         |           |         |           |           |   |               |         |         |              |               |         |         |              |   |               |         |         |         |               |         |         |         |              |         |         |              |  |             |           |             |             |             |             |           |           |             |             |           |           |             |           |             |             |
| ↖ 30 / 27   | ↘ 18 / 26    | ↗ 706 / 1015 | ↖ 3 / 2      |             |          |           |           |             |           |             |           |             |           |             |             |             |  |           |              |           |         |           |         |           |           |           |           |              |         |           |         |           |           |   |               |         |         |              |               |         |         |              |   |               |         |         |         |               |         |         |         |              |         |         |              |  |             |           |             |             |             |             |           |           |             |             |           |           |             |           |             |             |
| ↖ 44 / 42   | ↘ 3 / 0      | ↗ 30 / 27    | ↖ 18 / 26    |             |          |           |           |             |           |             |           |             |           |             |             |             |  |           |              |           |         |           |         |           |           |           |           |              |         |           |         |           |           |   |               |         |         |              |               |         |         |              |   |               |         |         |         |               |         |         |         |              |         |         |              |  |             |           |             |             |             |             |           |           |             |             |           |           |             |           |             |             |
| ← 1105 / 1028   | ↘ 0 / 2      | ↗ 7 / 0      | ↖ 727 / 1043 |             |          |           |           |             |           |             |           |             |           |             |             |             |  |           |              |           |         |           |         |           |           |           |           |              |         |           |         |           |           |   |               |         |         |              |               |         |         |              |   |               |         |         |         |               |         |         |         |              |         |         |              |  |             |           |             |             |             |             |           |           |             |             |           |           |             |           |             |             |
| ↖ 1105 / 1028   | ↘ 0 / 2      | ↗ 7 / 0      | ↖ 727 / 1043 |             |          |           |           |             |           |             |           |             |           |             |             |             |  |           |              |           |         |           |         |           |           |           |           |              |         |           |         |           |           |   |               |         |         |              |               |         |         |              |   |               |         |         |         |               |         |         |         |              |         |         |              |  |             |           |             |             |             |             |           |           |             |             |           |           |             |           |             |             |
| ← 1105 / 1028   | ↘ 3 / 7      | ↗ 4 / 5      | ↖ 3 / 4      |             |          |           |           |             |           |             |           |             |           |             |             |             |  |           |              |           |         |           |         |           |           |           |           |              |         |           |         |           |           |   |               |         |         |              |               |         |         |              |   |               |         |         |         |               |         |         |         |              |         |         |              |  |             |           |             |             |             |             |           |           |             |             |           |           |             |           |             |             |
| ↖ 1105 / 1028   | ↘ 3 / 7      | ↗ 4 / 5      | ↖ 3 / 4      |             |          |           |           |             |           |             |           |             |           |             |             |             |  |           |              |           |         |           |         |           |           |           |           |              |         |           |         |           |           |   |               |         |         |              |               |         |         |              |   |               |         |         |         |               |         |         |         |              |         |         |              |  |             |           |             |             |             |             |           |           |             |             |           |           |             |           |             |             |
| ↖ 727 / 1043  | ↘ 2 / 6      | ↗ 2 / 6      | ↖ 727 / 1043 |             |          |           |           |             |           |             |           |             |           |             |             |             |  |           |              |           |         |           |         |           |           |           |           |              |         |           |         |           |           |   |               |         |         |              |               |         |         |              |   |               |         |         |         |               |         |         |         |              |         |         |              |  |             |           |             |             |             |             |           |           |             |             |           |           |             |           |             |             |
| ← 776 / 470   | ↘ 33 / 40    | ↗ 198 / 215  | ↖ 193 / 216  |             |          |           |           |             |           |             |           |             |           |             |             |             |  |           |              |           |         |           |         |           |           |           |           |              |         |           |         |           |           |   |               |         |         |              |               |         |         |              |   |               |         |         |         |               |         |         |         |              |         |         |              |  |             |           |             |             |             |             |           |           |             |             |           |           |             |           |             |             |
| ↖ 421 / 721   | ↘ 503 / 961  | ↗ 10 / 12    | ↖ 13 / 12    |             |          |           |           |             |           |             |           |             |           |             |             |             |  |           |              |           |         |           |         |           |           |           |           |              |         |           |         |           |           |   |               |         |         |              |               |         |         |              |   |               |         |         |         |               |         |         |         |              |         |         |              |  |             |           |             |             |             |             |           |           |             |             |           |           |             |           |             |             |
| ↖ 421 / 721   | ↘ 503 / 961  | ↗ 10 / 12    | ↖ 13 / 12    |             |          |           |           |             |           |             |           |             |           |             |             |             |  |           |              |           |         |           |         |           |           |           |           |              |         |           |         |           |           |   |               |         |         |              |               |         |         |              |   |               |         |         |         |               |         |         |         |              |         |         |              |  |             |           |             |             |             |             |           |           |             |             |           |           |             |           |             |             |
| ↖ 776 / 470   | ↘ 33 / 40    | ↗ 198 / 215  | ↖ 193 / 216  |             |          |           |           |             |           |             |           |             |           |             |             |             |  |           |              |           |         |           |         |           |           |           |           |              |         |           |         |           |           |   |               |         |         |              |               |         |         |              |   |               |         |         |         |               |         |         |         |              |         |         |              |  |             |           |             |             |             |             |           |           |             |             |           |           |             |           |             |             |

LSA

FIGURE 4A

Legend

123 / 456

AM / PM Volume

South Shores Church Master Plan  
Existing Peak-Hour Traffic Volumes



**Table C: Existing and Existing Plus Project Intersection Level of Service Summary**

| Intersection  | Existing             |     |                      |     |                  |     |
|---|----------------------|-----|----------------------|-----|------------------|-----|
|   | Weekday AM Peak Hour |     | Weekday PM Peak Hour |     | Sunday Peak Hour |     |
|   | ICU or Delay         | LOS | ICU or Delay         | LOS | ICU or Delay     | LOS |
| 1 Crown Valley Parkway/Camino Del Avion                 |                      |     |                      |     |                  |     |
| No Project  | 0.442                | A   | 0.486                | A   | 0.427            | A   |
| Plus Project  | 0.444                | A   | 0.488                | A   | 0.435            | A   |
| Δ   | 0.002                |     | 0.002                |     | 0.008            |     |
| 2 Crown Valley Parkway/Sea Island Drive-Church Driveway |                      |     |                      |     |                  |     |
| No Project  | 0.407                | A   | 0.390                | A   | 0.449            | A   |
| Plus Project <sup>1</sup>                               | 0.405                | A   | 0.388                | A   | 0.429            | A   |
| Δ   | (0.002)              |     | (0.002)              |     | (0.020)          |     |
| 3 Crown Valley Parkway/Church Driveway (unsignalized)   |                      |     |                      |     |                  |     |
| No Project  | 0.0                  | A   | 12.2                 | B   | 11.5             | B   |
| Plus Project  | 0.0                  | A   | 12.3                 | B   | 11.9             | B   |
| Δ   | 0.0                  |     | 0.1                  |     | 0.4              |     |
| 4 Crown Valley Parkway/Lumeria Lane (unsignalized)      |                      |     |                      |     |                  |     |
| No Project  | 18.3                 | C   | 25.7                 | D   | 10.9             | B   |
| Plus Project  | 18.4                 | C   | 25.8                 | D   | 11.0             | B   |
| Δ   | 0.1                  |     | 0.1                  |     | 0.1              |     |
| 5 Crown Valley Parkway/Pacific Coast Highway            |                      |     |                      |     |                  |     |
| No Project  | 0.577                | A   | 0.574                | A   | 0.529            | A   |
| Plus Project  | 0.577                | A   | 0.574                | A   | 0.535            | A   |
| Δ   | 0.000                |     | 0.000                |     | 0.006            |     |

<sup>1</sup> The project will revise the shared westbound left-turn/through/right-turn lane to a dedicated left-turn lane and a shared through/right-turn lane.

ICU = Intersection Capacity Utilization

LOS = level of service

Delay is reported in seconds (sec) for unsignalized intersections using the Highway Capacity Manual (HCM) methodology.

■ = exceeds City's LOS criteria

The trip generation for each of the six cumulative projects is provided in Table D, and the trip assignment for each individual cumulative project is provided in Appendix C. The locations of the cumulative projects and the total cumulative project trip assignments are shown on Figures 5a and 5b.

### **Future Traffic Volumes and LOS Analysis**

The future peak-hour volumes for the study area intersections are shown on Figures 6a and 6b. An analysis of future LOS was prepared for the study area intersections. The existing intersection geometrics illustrated on Figure 3 were applied to future conditions. The results are shown in Table E. The future (and future plus project) LOS worksheets are provided in Appendix D.

As Table E indicates, all study area intersections are forecast to operate at satisfactory LOS (defined as LOS C or better for signalized intersections and LOS D or better for unsignalized intersections) during the weekday and Sunday peak hours.

## **PROJECT CONDITIONS**

### **Project Trip Generation**

The existing South Shores Church currently accommodates approximately 1,500 members, regular attendees, and visitors. The church holds four worship services and three Bible study groups on Sundays, periodic worship services on Wednesday evenings, preschool programs on weekdays, and 22 youth and adult ministry programs and community activities/meetings (i.e., martial arts classes and support groups) throughout the week. In addition, full-time, part-time, and volunteer staff members work at the church on weekdays between 8:00 a.m. and 5:00 p.m. Trips generated by these current church functions and activities are included in the existing counts. The Church also accommodates various special events such as meetings for organizations, fundraisers, and weddings, etc. The project applicant has provided the existing South Shores Church schedules and attendance figures (as well as future schedules and attendance figures for the various phases and buildout of the project), which is included in Appendix E.

The proposed project would increase overall building square footage with the addition of the Community Life Center and the Christian Education Buildings (as previously discussed and summarized in Table B), but typical weekday and Sunday church activities and schedules are not anticipated to change. It is acknowledged that special events (such as basketball/volleyball leagues) may occur in the Community Life Center, but these activities will not take place during typical peak-hour periods on a weekday or Sunday (the busiest day on site). These facilities will serve as the new locations for church programs and activities currently housed in buildings that will be demolished with the proposed project. The new Community Life Center and Christian Education Buildings will be amenities for the church congregation. As a result, the church trip generation is based on its operations (i.e., activities, schedules, and attendance), not building square footage.

Church activities and schedules will remain the same; however, in order to provide a conservative analysis, attendance was projected to grow from current conditions through project completion. Therefore, increases in attendance (people) have been utilized for purposes of the project trip generation.

**Table D: Cumulative Projects Trip Generation Summary**

| Projects |   | Weekday AM Peak Hour |     |       | Weekday PM Peak Hour |     |       | Sunday Peak Hour |     |       |
|----------|---|----------------------|-----|-------|----------------------|-----|-------|------------------|-----|-------|
|          |   | In                   | Out | Total | In                   | Out | Total | In               | Out | Total |
| 1        | Headlands Specific Plan <sup>1</sup>          | 100                  | 114 | 214   | 219                  | 178 | 397   | 219              | 178 | 397   |
| 2        | Dana Point Town Center Plan <sup>2</sup>      | 306                  | 180 | 486   | 374                  | 498 | 872   | 374              | 498 | 872   |
| 3        | Dana Point Harbor Revitalization <sup>3</sup> | 276                  | 226 | 502   | 317                  | 260 | 577   | 317              | 260 | 577   |
| 4        | Ritz Carlton Expansion <sup>4</sup>           | 11                   | 7   | 18    | 10                   | 9   | 19    | 10               | 9   | 19    |
| 5        | Doheny Hotel <sup>5</sup>                     | 56                   | 31  | 87    | 55                   | 49  | 104   | 55               | 49  | 104   |
| 6        | 34202 Del Obispo Street <sup>6</sup>          | 15                   | 63  | 78    | 64                   | 34  | 98    | 64               | 34  | 98    |

## Sources:

<sup>1</sup> Headlands Traffic Study, RK Engineering Group, Inc., September 2001.

<sup>2</sup> Dana Point Town Center Traffic Impact Analysis, Kimley-Horn and Associates, Inc., August 2006.

<sup>3</sup> Dana Point Harbor Revitalization Traffic & Parking Analysis, RBF Consulting, September 2005.

<sup>4</sup> Ritz Carlton Expansion Traffic Impact Analysis, Kimley-Horn and Associates, Inc., February 2007.

<sup>5</sup> Doheny Hotel Traffic Impact Analysis, Kunzman Associates, Inc., August 2012.

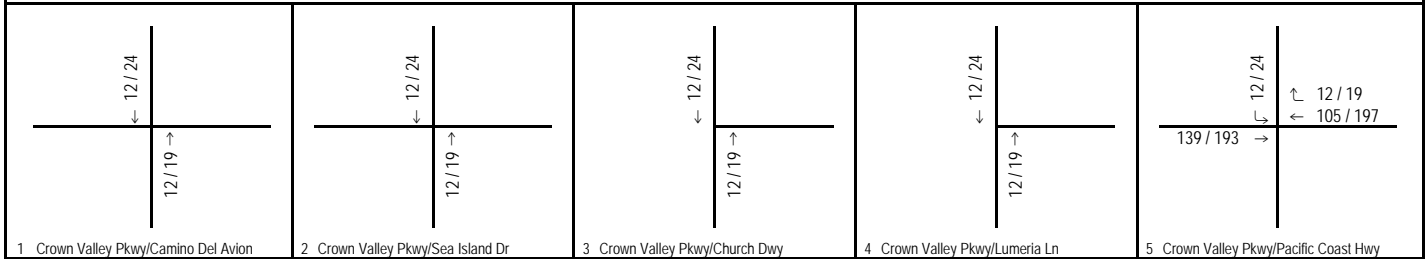
<sup>6</sup> 34202 Del Obispo Street Traffic Impact Analysis, LSA Associates, Inc., June 2014.

Sunday peak-hour trip generation not provided. The weekday p.m. peak-hour trip generation has been used to present a conservative analysis.





- LEGEND**
- ① Study Area Intersections
  - Cumulative Projects:**
  - ② - Headlands Specific Plan
  - ③ - Dana Point Town Center Specific Plan
  - ④ - Dana Point Harbor Revitalization
  - ⑤ - Ritz Carlton Expansion
  - ⑥ - Doheny Hotel
  - ⑦ - 34202 Del Obispo

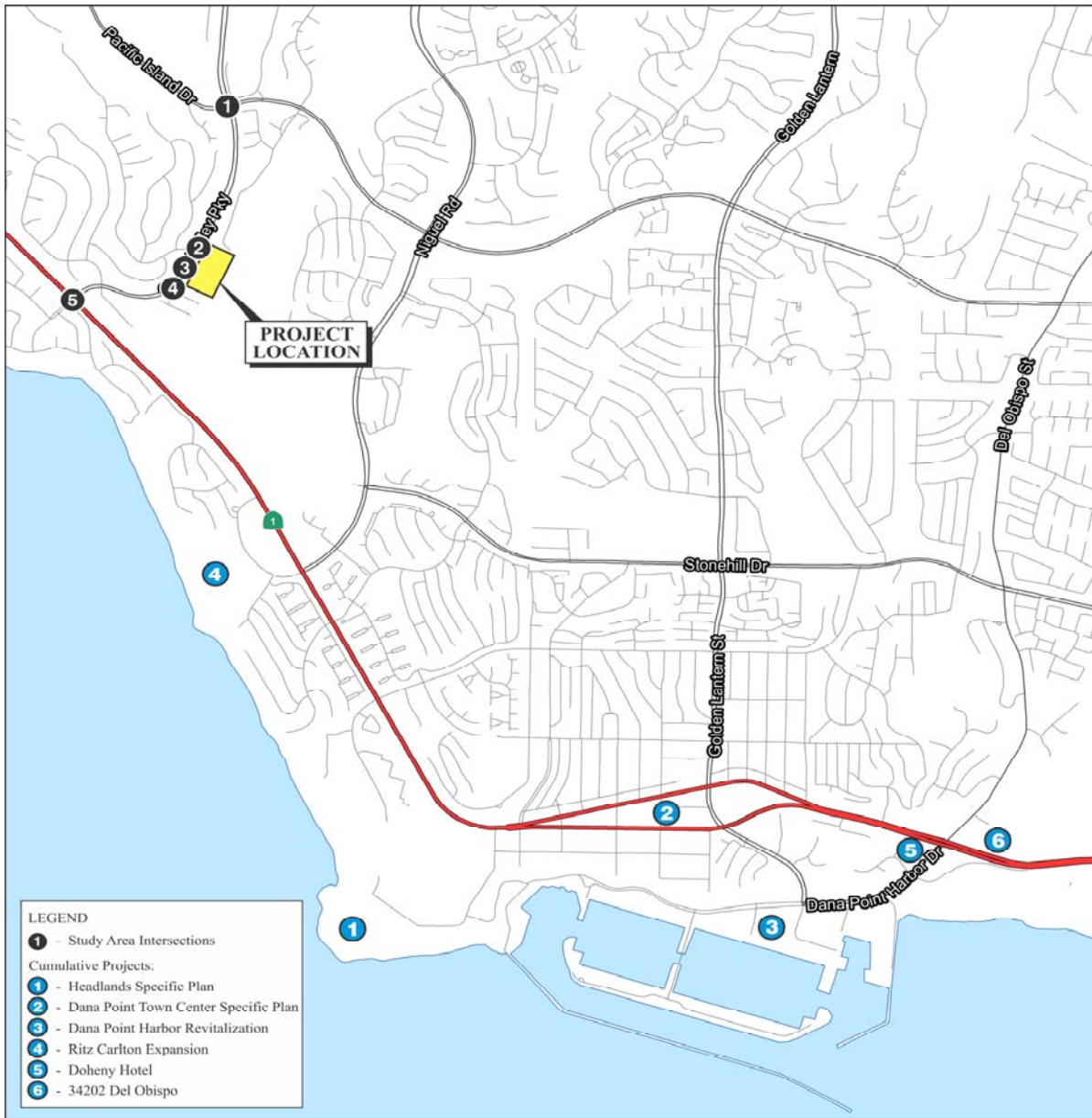


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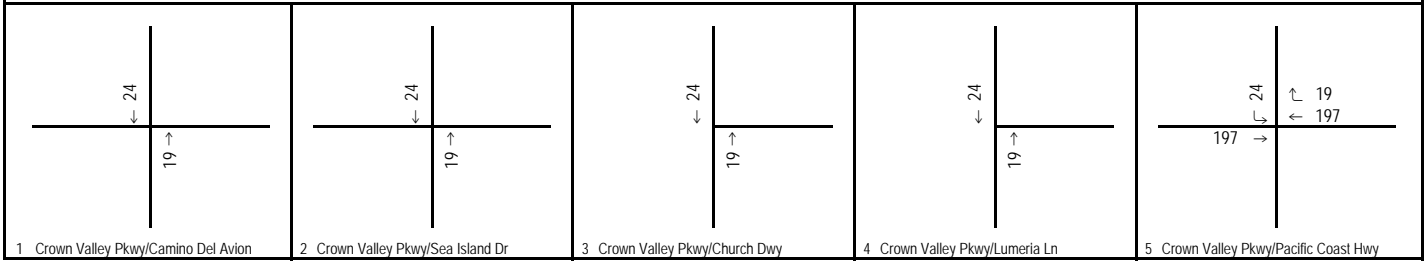
FIGURE 5A

Legend  
123 / 456 AM / PM Volume

South Shores Church Master Plan  
Cumulative Project Trip Assignment



- LEGEND**
- ① Study Area Intersections
  - Cumulative Projects:**
  - ② - Dana Point Town Center Specific Plan
  - ③ - Dana Point Harbor Revitalization
  - ④ - Ritz Carlton Expansion
  - ⑤ - Doheny Hotel
  - ⑥ - 34202 Del Obispo



LSA

FIGURE 5B

Legend  
123456 Sunday Mid-day Volume

South Shores Church Master Plan  
Cumulative Project Trip Assignment



**LEGEND**  
**1** - Study Area Intersections

|  |           |         |           |         |      |       |         |       |       |         |         |         |   |       |           |       |     |       |     |       |     |       |          |     |     |   |           |     |     |  |           |     |     |          |     |     |   |         |       |         |         |         |          |       |           |       |       |       |       |
|--|-----------|---------|-----------|---------|------|-------|---------|-------|-------|---------|---------|---------|---|-------|-----------|-------|-----|-------|-----|-------|-----|-------|----------|-----|-----|---|-----------|-----|-----|--|-----------|-----|-----|----------|-----|-----|---|---------|-------|---------|---------|---------|----------|-------|-----------|-------|-------|-------|-------|
| <table border="1"> <tr><td>16/10</td><td>907/917</td><td>146/340</td><td>229/150</td></tr> <tr><td>5/15</td><td>41/81</td><td>106/111</td><td>63/94</td></tr> <tr><td>53/70</td><td>707/943</td><td>115/233</td><td>294/158</td></tr> </table> <p>1 Crown Valley Pkwy/Camino Del Avion</p> | 16/10     | 907/917 | 146/340   | 229/150 | 5/15 | 41/81 | 106/111 | 63/94 | 53/70 | 707/943 | 115/233 | 294/158 | <table border="1"> <tr><td>43/47</td><td>1223/1146</td><td>48/16</td><td>5/6</td></tr> <tr><td>44/42</td><td>3/0</td><td>30/27</td><td>1/0</td></tr> <tr><td>18/26</td><td>810/1166</td><td>3/2</td><td>3/8</td></tr> </table> <p>2 Crown Valley Pkwy/Sea Island Dr</p> | 43/47 | 1223/1146 | 48/16 | 5/6 | 44/42 | 3/0 | 30/27 | 1/0 | 18/26 | 810/1166 | 3/2 | 3/8 | <table border="1"> <tr><td>1261/1186</td><td>0/2</td><td>7/0</td></tr> </table> <p>3 Crown Valley Pkwy/Church Dwy</p> | 1261/1186 | 0/2 | 7/0 | <table border="1"> <tr><td>1261/1186</td><td>3/7</td><td>4/5</td></tr> <tr><td>834/1198</td><td>2/6</td><td>3/4</td></tr> </table> <p>4 Crown Valley Pkwy/Lumeria Ln</p> | 1261/1186 | 3/7 | 4/5 | 834/1198 | 2/6 | 3/4 | <table border="1"> <tr><td>877/531</td><td>37/45</td><td>236/267</td><td>230/263</td></tr> <tr><td>476/815</td><td>707/1279</td><td>11/14</td><td>1177/1009</td></tr> <tr><td>15/14</td><td>32/50</td><td>29/34</td><td>34/34</td></tr> </table> <p>5 Crown Valley Pkwy/Pacific Coast Hwy</p> | 877/531 | 37/45 | 236/267 | 230/263 | 476/815 | 707/1279 | 11/14 | 1177/1009 | 15/14 | 32/50 | 29/34 | 34/34 |
| 16/10  | 907/917   | 146/340 | 229/150   |         |      |       |         |       |       |         |         |         |   |       |           |       |     |       |     |       |     |       |          |     |     |   |           |     |     |  |           |     |     |          |     |     |   |         |       |         |         |         |          |       |           |       |       |       |       |
| 5/15   | 41/81     | 106/111 | 63/94     |         |      |       |         |       |       |         |         |         |   |       |           |       |     |       |     |       |     |       |          |     |     |   |           |     |     |  |           |     |     |          |     |     |   |         |       |         |         |         |          |       |           |       |       |       |       |
| 53/70  | 707/943   | 115/233 | 294/158   |         |      |       |         |       |       |         |         |         |   |       |           |       |     |       |     |       |     |       |          |     |     |   |           |     |     |  |           |     |     |          |     |     |   |         |       |         |         |         |          |       |           |       |       |       |       |
| 43/47  | 1223/1146 | 48/16   | 5/6       |         |      |       |         |       |       |         |         |         |   |       |           |       |     |       |     |       |     |       |          |     |     |   |           |     |     |  |           |     |     |          |     |     |   |         |       |         |         |         |          |       |           |       |       |       |       |
| 44/42  | 3/0       | 30/27   | 1/0       |         |      |       |         |       |       |         |         |         |   |       |           |       |     |       |     |       |     |       |          |     |     |   |           |     |     |  |           |     |     |          |     |     |   |         |       |         |         |         |          |       |           |       |       |       |       |
| 18/26  | 810/1166  | 3/2     | 3/8       |         |      |       |         |       |       |         |         |         |   |       |           |       |     |       |     |       |     |       |          |     |     |   |           |     |     |  |           |     |     |          |     |     |   |         |       |         |         |         |          |       |           |       |       |       |       |
| 1261/1186  | 0/2       | 7/0     |           |         |      |       |         |       |       |         |         |         |   |       |           |       |     |       |     |       |     |       |          |     |     |   |           |     |     |  |           |     |     |          |     |     |   |         |       |         |         |         |          |       |           |       |       |       |       |
| 1261/1186  | 3/7       | 4/5     |           |         |      |       |         |       |       |         |         |         |   |       |           |       |     |       |     |       |     |       |          |     |     |   |           |     |     |  |           |     |     |          |     |     |   |         |       |         |         |         |          |       |           |       |       |       |       |
| 834/1198   | 2/6       | 3/4     |           |         |      |       |         |       |       |         |         |         |   |       |           |       |     |       |     |       |     |       |          |     |     |   |           |     |     |  |           |     |     |          |     |     |   |         |       |         |         |         |          |       |           |       |       |       |       |
| 877/531  | 37/45     | 236/267 | 230/263   |         |      |       |         |       |       |         |         |         |   |       |           |       |     |       |     |       |     |       |          |     |     |   |           |     |     |  |           |     |     |          |     |     |   |         |       |         |         |         |          |       |           |       |       |       |       |
| 476/815  | 707/1279  | 11/14   | 1177/1009 |         |      |       |         |       |       |         |         |         |   |       |           |       |     |       |     |       |     |       |          |     |     |   |           |     |     |  |           |     |     |          |     |     |   |         |       |         |         |         |          |       |           |       |       |       |       |
| 15/14  | 32/50     | 29/34   | 34/34     |         |      |       |         |       |       |         |         |         |   |       |           |       |     |       |     |       |     |       |          |     |     |   |           |     |     |  |           |     |     |          |     |     |   |         |       |         |         |         |          |       |           |       |       |       |       |

LSA

FIGURE 6A

Legend  
 123 / 456      AM / PM Volume

South Shores Church Master Plan  
 Future Peak-Hour Traffic Volumes





|   |                                   |                                |                                |                                       |    |    |    |     |    |     |     |  |    |   |    |    |    |     |   |  |  |    |      |    |    |    |   |    |    |    |     |   |  |   |      |    |   |   |      |    |   |   |  |     |    |     |     |      |     |     |    |    |    |
|---|-----------------------------------|--------------------------------|--------------------------------|---------------------------------------|----|----|----|-----|----|-----|-----|--|----|---|----|----|----|-----|---|--|--|----|------|----|----|----|---|----|----|----|-----|---|--|---|------|----|---|---|------|----|---|---|--|-----|----|-----|-----|------|-----|-----|----|----|----|
| <table border="1"> <tr><td>6</td><td>858</td><td>233</td><td>183</td></tr> <tr><td>14</td><td>48</td><td>90</td><td>168</td></tr> <tr><td>97</td><td>767</td><td>234</td><td></td></tr> <tr><td>32</td><td>1</td><td>20</td><td>44</td></tr> <tr><td>33</td><td>904</td><td>6</td><td></td></tr> </table> | 6                                 | 858                            | 233                            | 183                                   | 14 | 48 | 90 | 168 | 97 | 767 | 234 |  | 32 | 1 | 20 | 44 | 33 | 904 | 6 |  | <table border="1"> <tr><td>40</td><td>1071</td><td>22</td><td>94</td></tr> <tr><td>32</td><td>1</td><td>20</td><td>44</td></tr> <tr><td>33</td><td>904</td><td>6</td><td></td></tr> </table> | 40 | 1071 | 22 | 94 | 32 | 1 | 20 | 44 | 33 | 904 | 6 |  | <table border="1"> <tr><td>1158</td><td>69</td><td>7</td></tr> </table> | 1158 | 69 | 7 | <table border="1"> <tr><td>1146</td><td>13</td><td>6</td><td>8</td></tr> </table> | 1146 | 13 | 6 | 8 | <table border="1"> <tr><td>563</td><td>37</td><td>367</td><td>271</td><td>1101</td></tr> <tr><td>475</td><td>897</td><td>16</td><td>28</td><td>21</td></tr> </table> | 563 | 37 | 367 | 271 | 1101 | 475 | 897 | 16 | 28 | 21 |
| 6   | 858                               | 233                            | 183                            |                                       |    |    |    |     |    |     |     |  |    |   |    |    |    |     |   |  |  |    |      |    |    |    |   |    |    |    |     |   |  |   |      |    |   |   |      |    |   |   |  |     |    |     |     |      |     |     |    |    |    |
| 14  | 48                                | 90                             | 168                            |                                       |    |    |    |     |    |     |     |  |    |   |    |    |    |     |   |  |  |    |      |    |    |    |   |    |    |    |     |   |  |   |      |    |   |   |      |    |   |   |  |     |    |     |     |      |     |     |    |    |    |
| 97  | 767                               | 234                            |                                |                                       |    |    |    |     |    |     |     |  |    |   |    |    |    |     |   |  |  |    |      |    |    |    |   |    |    |    |     |   |  |   |      |    |   |   |      |    |   |   |  |     |    |     |     |      |     |     |    |    |    |
| 32  | 1                                 | 20                             | 44                             |                                       |    |    |    |     |    |     |     |  |    |   |    |    |    |     |   |  |  |    |      |    |    |    |   |    |    |    |     |   |  |   |      |    |   |   |      |    |   |   |  |     |    |     |     |      |     |     |    |    |    |
| 33  | 904                               | 6                              |                                |                                       |    |    |    |     |    |     |     |  |    |   |    |    |    |     |   |  |  |    |      |    |    |    |   |    |    |    |     |   |  |   |      |    |   |   |      |    |   |   |  |     |    |     |     |      |     |     |    |    |    |
| 40  | 1071                              | 22                             | 94                             |                                       |    |    |    |     |    |     |     |  |    |   |    |    |    |     |   |  |  |    |      |    |    |    |   |    |    |    |     |   |  |   |      |    |   |   |      |    |   |   |  |     |    |     |     |      |     |     |    |    |    |
| 32  | 1                                 | 20                             | 44                             |                                       |    |    |    |     |    |     |     |  |    |   |    |    |    |     |   |  |  |    |      |    |    |    |   |    |    |    |     |   |  |   |      |    |   |   |      |    |   |   |  |     |    |     |     |      |     |     |    |    |    |
| 33  | 904                               | 6                              |                                |                                       |    |    |    |     |    |     |     |  |    |   |    |    |    |     |   |  |  |    |      |    |    |    |   |    |    |    |     |   |  |   |      |    |   |   |      |    |   |   |  |     |    |     |     |      |     |     |    |    |    |
| 1158  | 69                                | 7                              |                                |                                       |    |    |    |     |    |     |     |  |    |   |    |    |    |     |   |  |  |    |      |    |    |    |   |    |    |    |     |   |  |   |      |    |   |   |      |    |   |   |  |     |    |     |     |      |     |     |    |    |    |
| 1146  | 13                                | 6                              | 8                              |                                       |    |    |    |     |    |     |     |  |    |   |    |    |    |     |   |  |  |    |      |    |    |    |   |    |    |    |     |   |  |   |      |    |   |   |      |    |   |   |  |     |    |     |     |      |     |     |    |    |    |
| 563   | 37                                | 367                            | 271                            | 1101                                  |    |    |    |     |    |     |     |  |    |   |    |    |    |     |   |  |  |    |      |    |    |    |   |    |    |    |     |   |  |   |      |    |   |   |      |    |   |   |  |     |    |     |     |      |     |     |    |    |    |
| 475   | 897                               | 16                             | 28                             | 21                                    |    |    |    |     |    |     |     |  |    |   |    |    |    |     |   |  |  |    |      |    |    |    |   |    |    |    |     |   |  |   |      |    |   |   |      |    |   |   |  |     |    |     |     |      |     |     |    |    |    |
| 1 Crown Valley Pkwy/Camino Del Avion  | 2 Crown Valley Pkwy/Sea Island Dr | 3 Crown Valley Pkwy/Church Dwy | 4 Crown Valley Pkwy/Lumeria Ln | 5 Crown Valley Pkwy/Pacific Coast Hwy |    |    |    |     |    |     |     |  |    |   |    |    |    |     |   |  |  |    |      |    |    |    |   |    |    |    |     |   |  |   |      |    |   |   |      |    |   |   |  |     |    |     |     |      |     |     |    |    |    |

LSA

FIGURE 6B

Legend  
123456 Sunday Mid-day Volume

South Shores Church Master Plan  
Future Peak-Hour Traffic Volumes

**Table E: Future and Future Plus Project Intersection Level of Service Summary**

| Intersection  | Future               |     |                      |     |                  |     |
|---|----------------------|-----|----------------------|-----|------------------|-----|
|   | Weekday AM Peak Hour |     | Weekday PM Peak Hour |     | Sunday Peak Hour |     |
|   | ICU or Delay         | LOS | ICU or Delay         | LOS | ICU or Delay     | LOS |
| 1 Crown Valley Parkway/Camino Del Avion                 |                      |     |                      |     |                  |     |
| No Project  | 0.497                | A   | 0.547                | A   | 0.475            | A   |
| Plus Project  | 0.499                | A   | 0.548                | A   | 0.484            | A   |
| Δ   | 0.002                |     | 0.001                |     | 0.009            |     |
| 2 Crown Valley Parkway/Sea Island Drive-Church Driveway |                      |     |                      |     |                  |     |
| No Project  | 0.452                | A   | 0.435                | A   | 0.486            | A   |
| Plus Project <sup>1</sup>                               | 0.450                | A   | 0.433                | A   | 0.467            | A   |
| Δ   | (0.002)              |     | (0.002)              |     | (0.019)          |     |
| 3 Crown Valley Parkway/Church Driveway (unsignalized)   |                      |     |                      |     |                  |     |
| No Project  | 0.0                  | A   | 13.0                 | B   | 12.1             | B   |
| Plus Project  | 0.0                  | A   | 13.2                 | B   | 12.6             | B   |
| Δ   | 0.0                  |     | 0.2                  |     | 0.5              |     |
| 4 Crown Valley Parkway/Lumeria Lane (unsignalized)      |                      |     |                      |     |                  |     |
| No Project  | 21.9                 | C   | 33.9                 | D   | 11.3             | B   |
| Plus Project  | 22.0                 | C   | 34.0                 | D   | 11.5             | B   |
| Δ   | 0.1                  |     | 0.1                  |     | 0.2              |     |
| 5 Crown Valley Parkway/Pacific Coast Highway            |                      |     |                      |     |                  |     |
| No Project  | 0.676                | B   | 0.707                | C   | 0.647            | B   |
| Plus Project  | 0.676                | B   | 0.708                | C   | 0.653            | B   |
| Δ   | 0.000                |     | 0.001                |     | 0.006            |     |

<sup>1</sup> The project will revise the shared westbound left-turn/through/right-turn lane to a dedicated left-turn lane and a shared through/right-turn lane.

ICU = Intersection Capacity Utilization

LOS = level of service

Delay is reported in seconds (sec) for unsignalized intersections using the Highway Capacity Manual (HCM) methodology.

■ = exceeds City's LOS criteria

With buildout of the project, attendance is anticipated to increase by 12 people during the weekday a.m. peak hour (from 40 to 52 people), by 18 people during the weekday p.m. peak hour (from 70 to 88 people), and by 158 people during the Sunday peak hour (from 580 to 738 people). The projected increases in attendance are provided in Appendix E.

Table F presents the project trip generation for the proposed project based on the estimated increase in attendance. As this table indicates, the project has the potential to generate an additional approximately 12 inbound weekday a.m. peak-hour trips, 18 outbound weekday p.m. peak-hour trips, and 106 Sunday peak-hour trips (57 inbound and 49 outbound) at buildout.

For trip generation purposes, one vehicle has been assumed per new staff member and program/service (i.e., Grief Share) attendee during typical weekday operations at project buildout. The church staff schedule is 8:00 a.m. to 5:00 p.m. As such, 12 new staff members are anticipated to arrive on site during the a.m. peak hour (which is equivalent to 12 additional inbound trips) and depart during the p.m. peak hour (which is equivalent to 12 additional outbound trips). The Grief Share schedule is 2:00 p.m. to 4:00 p.m. 6 new Grief Share attendees would not arrive during either peak hour, but would leave the site during the p.m. peak hour (which is equivalent to 6 additional outbound trips).

In order to identify the existing trip generation characteristics of the South Shores Church during typical Sunday operations, LSA utilized the parking demand survey data and the inbound and outbound volume data at the full-access and RIRO driveways provided in Appendix A. According to the parking surveys, the peak parking demand was 254 spaces. With an attendance of 379 people at this time, the average vehicle occupancy is approximately 1.49 people per vehicle, or 0.67 trips per person. The inbound/outbound split of vehicle trips at the church site is approximately 54 percent inbound and 46 percent outbound during the peak hour of a typical Sunday. Therefore, 158 new church attendees on a Sunday are equivalent to 106 additional trips (57 inbound and 49 outbound).

### **Project Trip Distribution and Assignment**

Trip distribution for the proposed project is based on the inbound and outbound characteristics at the church driveways and turn movements at the upstream and downstream study area intersections. Figures 7a and 7b illustrate the regional project trip distribution and assignment for the study area intersections. As shown on these figures, 44 percent of the trips are destined north via Crown Valley Parkway, 1 percent is destined south via Crown Valley Parkway, 25 percent are destined east (12 percent via Camino Del Avion and 13 percent via PCH), and 30 percent are destined west (4 percent via Camino Del Avion, 2 percent via Sea Island Drive, and 24 percent via PCH).

### **EXISTING PLUS PROJECT CONDITIONS**

To determine existing plus project conditions, traffic generated by the proposed project was added to the existing baseline traffic volumes at the study area intersections. Figures 8a and 8b show the resulting existing plus project peak-hour traffic volumes.

The existing plus project peak-hour LOS analysis for the study area intersections is presented in Table C. As Table C indicates, all study area intersections are anticipated to operate at satisfactory LOS (defined as LOS C or better for signalized intersections and LOS D or better for unsignalized intersections) with the addition of project traffic during the weekday and Sunday peak hours.

**Table F: Project Trip Generation Summary**

| Land Use                                   | Size | Units   | Weekday AM Peak Hour |     |       | Weekday PM Peak Hour |     |       | Sunday Peak Hour |     |       |
|--|------|---------|----------------------|-----|-------|----------------------|-----|-------|------------------|-----|-------|
|  |      |         | In                   | Out | Total | In                   | Out | Total | In               | Out | Total |
| <b>Project Trip Generation<sup>1</sup></b> |      |         |                      |     |       |                      |     |       |                  |     |       |
| Church (Weekday AM)                        | 12   | Persons | 12                   | 0   | 12    | -                    | -   | -     | -                | -   | -     |
| Church (Weekday PM)                        | 18   | Persons | -                    | -   | -     | 0                    | 18  | 18    | -                | -   | -     |
| Church (Sunday)                            | 158  | Persons | -                    | -   | -     | -                    | -   | -     | 57               | 49  | 106   |

<sup>1</sup> For purposes of the project trip generation, forecast increases in attendance have been assumed as follows (i.e., Master Plan attendance - existing 2012/2014 attendance):

Weekday (Thursday) AM Peak Hour: 52 Staff - 40 Staff = 12

Weekday (Thursday) PM Peak Hour: (52 Staff + 36 Grief Share) - (40 Staff + 30 Grief Share) = 18

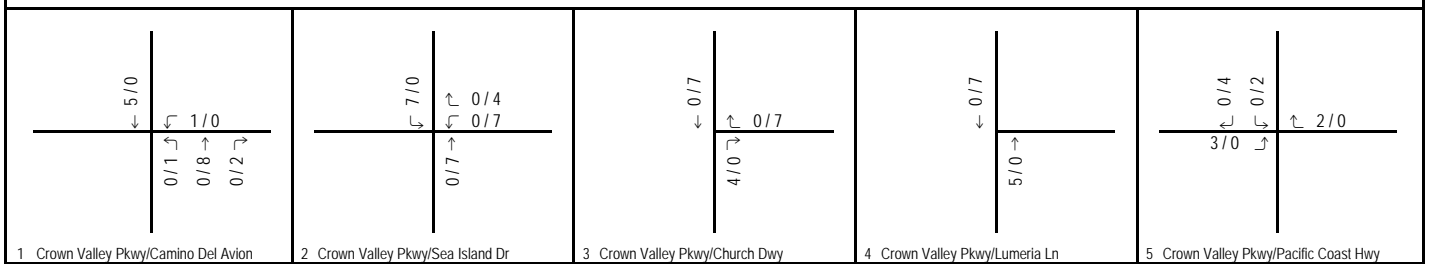
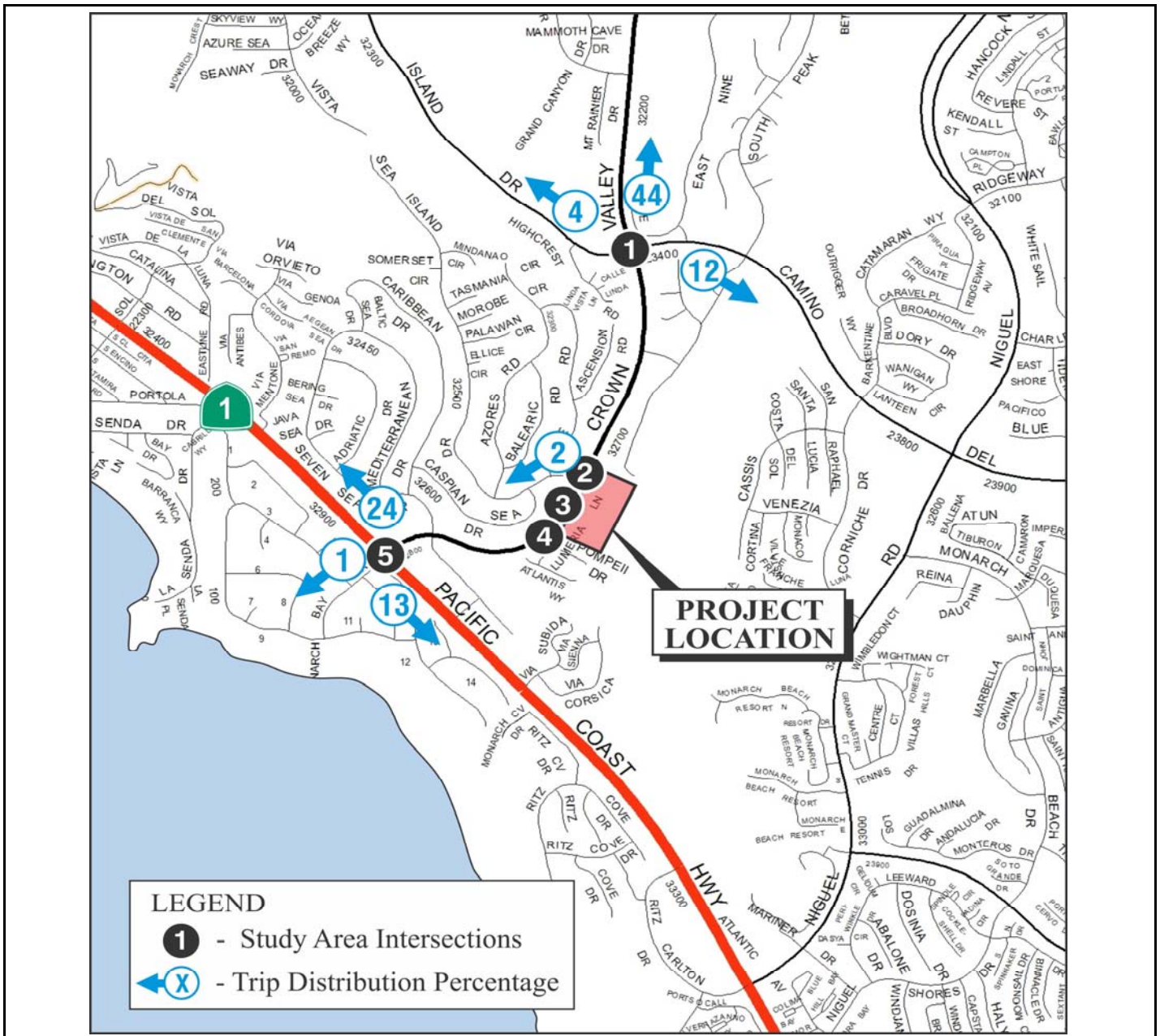
Sunday Peak Hour: (399 2nd Service + 41 Bible Study - 114 from 2nd Service for Bible Studies + 412 3rd Service) -

(344 2nd Service + 35 Bible Study - 100 from 2nd Service for Bible Studies + 301 3rd Service) = 158

1 vehicle per Staff member and Grief Share attendee is assumed.

Based on Sunday parking surveys, the average vehicle occupancy is approximately 1.49 people per vehicle, or 0.67 vehicles per person.

The inbound/outbound split during the Sunday peak hour is approximately 54/46.



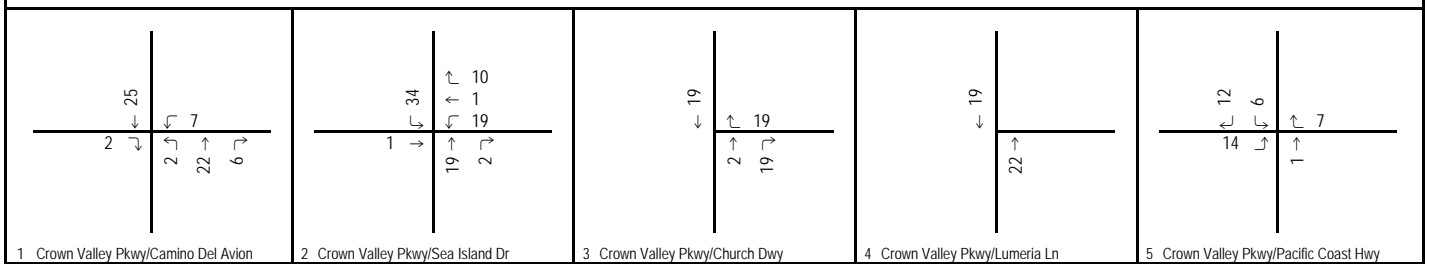
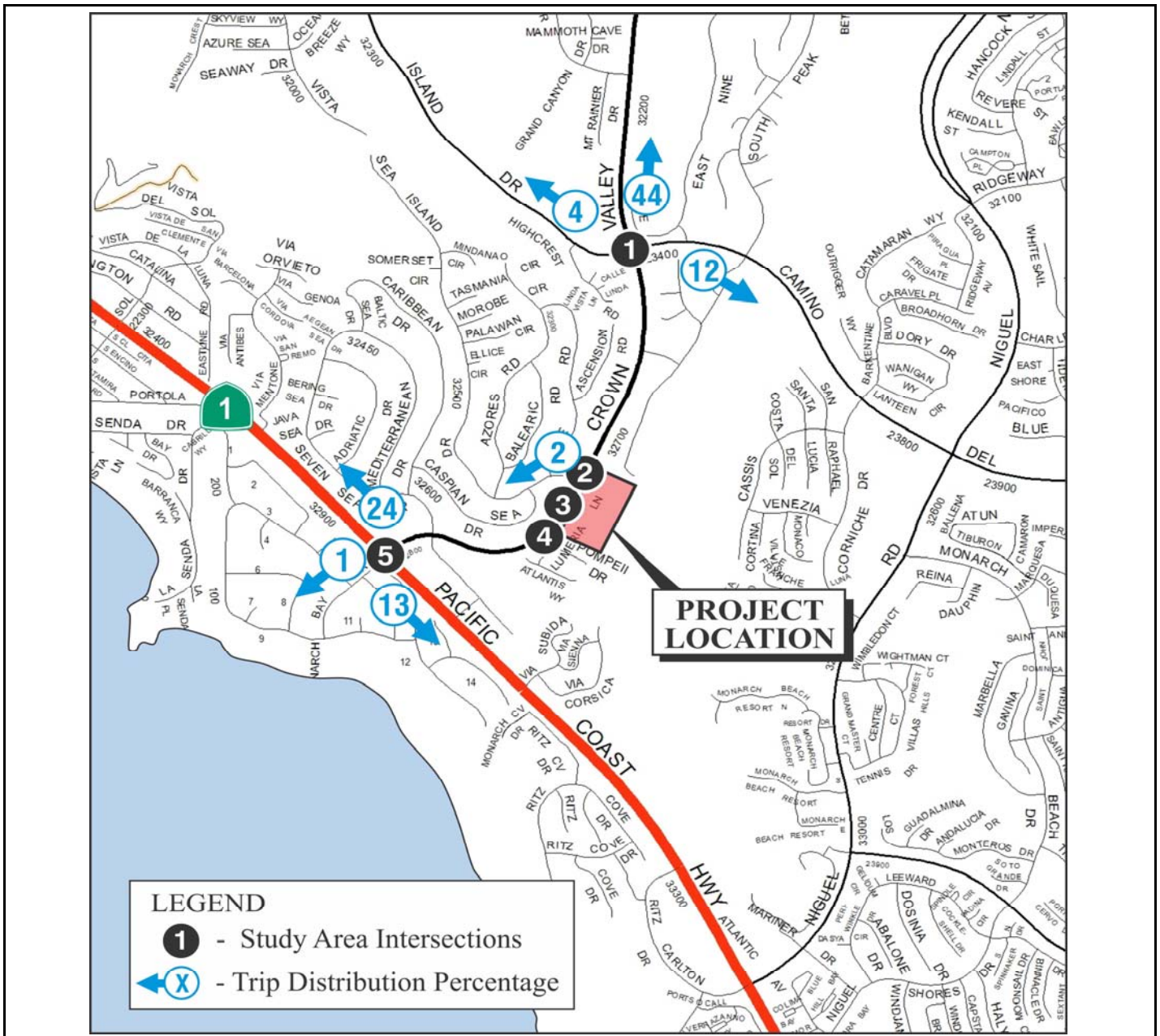
LSA

FIGURE 7A

Legend  
123 / 456 AM / PM Volume

South Shores Church Master Plan  
Project Trip Distribution and Assignment





LSA

FIGURE 7B

Legend  
123456

Sunday Mid-day Volume

South Shores Church Master Plan  
Project Trip Distribution and Assignment



|  |              |              |             |             |          |           |           |           |           |             |             |             |  |           |             |             |  |           |              |           |          |           |         |           |         |           |              |         |          |  |           |              |         |   |               |         |          |          |              |          |          |          |  |               |         |         |         |              |         |         |         |  |             |           |             |             |             |             |           |             |           |           |           |           |           |           |           |           |
|--|--------------|--------------|-------------|-------------|----------|-----------|-----------|-----------|-----------|-------------|-------------|-------------|--|-----------|-------------|-------------|--|-----------|--------------|-----------|----------|-----------|---------|-----------|---------|-----------|--------------|---------|----------|--|-----------|--------------|---------|---|---------------|---------|----------|----------|--------------|----------|----------|----------|--|---------------|---------|---------|---------|--------------|---------|---------|---------|--|-------------|-----------|-------------|-------------|-------------|-------------|-----------|-------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| <table border="1"> <tr><td>← 14 / 9</td><td>↘ 797 / 790</td><td>↙ 129 / 301</td><td>↗ 203 / 133</td></tr> <tr><td>↖ 4 / 13</td><td>↘ 36 / 72</td><td>↙ 47 / 63</td><td>↗ 56 / 83</td></tr> <tr><td>↖ 94 / 98</td><td>↘ 615 / 826</td><td>↙ 102 / 208</td><td>↗ 261 / 140</td></tr> <tr><td></td><td>↘ 47 / 63</td><td>↙ 615 / 826</td><td>↗ 102 / 208</td></tr> </table> <p>1 Crown Valley Pkwy/Camino Del Avion</p> | ← 14 / 9     | ↘ 797 / 790  | ↙ 129 / 301 | ↗ 203 / 133 | ↖ 4 / 13 | ↘ 36 / 72 | ↙ 47 / 63 | ↗ 56 / 83 | ↖ 94 / 98 | ↘ 615 / 826 | ↙ 102 / 208 | ↗ 261 / 140 |  | ↘ 47 / 63 | ↙ 615 / 826 | ↗ 102 / 208 | <table border="1"> <tr><td>← 43 / 47</td><td>↘ 1072 / 993</td><td>↙ 55 / 16</td><td>↗ 5 / 10</td></tr> <tr><td>↖ 44 / 42</td><td>↘ 3 / 0</td><td>↙ 18 / 26</td><td>↗ 1 / 0</td></tr> <tr><td>↖ 30 / 27</td><td>↘ 706 / 1022</td><td>↙ 3 / 2</td><td>↗ 3 / 15</td></tr> <tr><td></td><td>↘ 18 / 26</td><td>↙ 706 / 1022</td><td>↗ 3 / 2</td></tr> </table> <p>2 Crown Valley Pkwy/Sea Island Dr</p> | ← 43 / 47 | ↘ 1072 / 993 | ↙ 55 / 16 | ↗ 5 / 10 | ↖ 44 / 42 | ↘ 3 / 0 | ↙ 18 / 26 | ↗ 1 / 0 | ↖ 30 / 27 | ↘ 706 / 1022 | ↙ 3 / 2 | ↗ 3 / 15 |  | ↘ 18 / 26 | ↙ 706 / 1022 | ↗ 3 / 2 | <table border="1"> <tr><td>← 1105 / 1035</td><td>↘ 0 / 9</td><td>↙ 11 / 0</td><td>↗ 11 / 0</td></tr> <tr><td>↖ 727 / 1043</td><td>↘ 11 / 0</td><td>↙ 11 / 0</td><td>↗ 11 / 0</td></tr> </table> <p>3 Crown Valley Pkwy/Church Dwy</p> | ← 1105 / 1035 | ↘ 0 / 9 | ↙ 11 / 0 | ↗ 11 / 0 | ↖ 727 / 1043 | ↘ 11 / 0 | ↙ 11 / 0 | ↗ 11 / 0 | <table border="1"> <tr><td>← 1105 / 1035</td><td>↘ 3 / 7</td><td>↙ 4 / 5</td><td>↗ 3 / 4</td></tr> <tr><td>↖ 732 / 1043</td><td>↘ 2 / 6</td><td>↙ 4 / 5</td><td>↗ 3 / 4</td></tr> </table> <p>4 Crown Valley Pkwy/Lumeria Ln</p> | ← 1105 / 1035 | ↘ 3 / 7 | ↙ 4 / 5 | ↗ 3 / 4 | ↖ 732 / 1043 | ↘ 2 / 6 | ↙ 4 / 5 | ↗ 3 / 4 | <table border="1"> <tr><td>← 776 / 474</td><td>↘ 33 / 40</td><td>↙ 198 / 217</td><td>↗ 195 / 216</td></tr> <tr><td>↖ 424 / 721</td><td>↘ 503 / 961</td><td>↙ 10 / 12</td><td>↗ 949 / 719</td></tr> <tr><td>↖ 13 / 12</td><td>↘ 28 / 44</td><td>↙ 26 / 30</td><td>↗ 30 / 30</td></tr> <tr><td>↖ 13 / 12</td><td>↘ 28 / 44</td><td>↙ 26 / 30</td><td>↗ 30 / 30</td></tr> </table> <p>5 Crown Valley Pkwy/Pacific Coast Hwy</p> | ← 776 / 474 | ↘ 33 / 40 | ↙ 198 / 217 | ↗ 195 / 216 | ↖ 424 / 721 | ↘ 503 / 961 | ↙ 10 / 12 | ↗ 949 / 719 | ↖ 13 / 12 | ↘ 28 / 44 | ↙ 26 / 30 | ↗ 30 / 30 | ↖ 13 / 12 | ↘ 28 / 44 | ↙ 26 / 30 | ↗ 30 / 30 |
| ← 14 / 9   | ↘ 797 / 790  | ↙ 129 / 301  | ↗ 203 / 133 |             |          |           |           |           |           |             |             |             |  |           |             |             |  |           |              |           |          |           |         |           |         |           |              |         |          |  |           |              |         |   |               |         |          |          |              |          |          |          |  |               |         |         |         |              |         |         |         |  |             |           |             |             |             |             |           |             |           |           |           |           |           |           |           |           |
| ↖ 4 / 13   | ↘ 36 / 72    | ↙ 47 / 63    | ↗ 56 / 83   |             |          |           |           |           |           |             |             |             |  |           |             |             |  |           |              |           |          |           |         |           |         |           |              |         |          |  |           |              |         |   |               |         |          |          |              |          |          |          |  |               |         |         |         |              |         |         |         |  |             |           |             |             |             |             |           |             |           |           |           |           |           |           |           |           |
| ↖ 94 / 98  | ↘ 615 / 826  | ↙ 102 / 208  | ↗ 261 / 140 |             |          |           |           |           |           |             |             |             |  |           |             |             |  |           |              |           |          |           |         |           |         |           |              |         |          |  |           |              |         |   |               |         |          |          |              |          |          |          |  |               |         |         |         |              |         |         |         |  |             |           |             |             |             |             |           |             |           |           |           |           |           |           |           |           |
|  | ↘ 47 / 63    | ↙ 615 / 826  | ↗ 102 / 208 |             |          |           |           |           |           |             |             |             |  |           |             |             |  |           |              |           |          |           |         |           |         |           |              |         |          |  |           |              |         |   |               |         |          |          |              |          |          |          |  |               |         |         |         |              |         |         |         |  |             |           |             |             |             |             |           |             |           |           |           |           |           |           |           |           |
| ← 43 / 47  | ↘ 1072 / 993 | ↙ 55 / 16    | ↗ 5 / 10    |             |          |           |           |           |           |             |             |             |  |           |             |             |  |           |              |           |          |           |         |           |         |           |              |         |          |  |           |              |         |   |               |         |          |          |              |          |          |          |  |               |         |         |         |              |         |         |         |  |             |           |             |             |             |             |           |             |           |           |           |           |           |           |           |           |
| ↖ 44 / 42  | ↘ 3 / 0      | ↙ 18 / 26    | ↗ 1 / 0     |             |          |           |           |           |           |             |             |             |  |           |             |             |  |           |              |           |          |           |         |           |         |           |              |         |          |  |           |              |         |   |               |         |          |          |              |          |          |          |  |               |         |         |         |              |         |         |         |  |             |           |             |             |             |             |           |             |           |           |           |           |           |           |           |           |
| ↖ 30 / 27  | ↘ 706 / 1022 | ↙ 3 / 2      | ↗ 3 / 15    |             |          |           |           |           |           |             |             |             |  |           |             |             |  |           |              |           |          |           |         |           |         |           |              |         |          |  |           |              |         |   |               |         |          |          |              |          |          |          |  |               |         |         |         |              |         |         |         |  |             |           |             |             |             |             |           |             |           |           |           |           |           |           |           |           |
|  | ↘ 18 / 26    | ↙ 706 / 1022 | ↗ 3 / 2     |             |          |           |           |           |           |             |             |             |  |           |             |             |  |           |              |           |          |           |         |           |         |           |              |         |          |  |           |              |         |   |               |         |          |          |              |          |          |          |  |               |         |         |         |              |         |         |         |  |             |           |             |             |             |             |           |             |           |           |           |           |           |           |           |           |
| ← 1105 / 1035  | ↘ 0 / 9      | ↙ 11 / 0     | ↗ 11 / 0    |             |          |           |           |           |           |             |             |             |  |           |             |             |  |           |              |           |          |           |         |           |         |           |              |         |          |  |           |              |         |   |               |         |          |          |              |          |          |          |  |               |         |         |         |              |         |         |         |  |             |           |             |             |             |             |           |             |           |           |           |           |           |           |           |           |
| ↖ 727 / 1043   | ↘ 11 / 0     | ↙ 11 / 0     | ↗ 11 / 0    |             |          |           |           |           |           |             |             |             |  |           |             |             |  |           |              |           |          |           |         |           |         |           |              |         |          |  |           |              |         |   |               |         |          |          |              |          |          |          |  |               |         |         |         |              |         |         |         |  |             |           |             |             |             |             |           |             |           |           |           |           |           |           |           |           |
| ← 1105 / 1035  | ↘ 3 / 7      | ↙ 4 / 5      | ↗ 3 / 4     |             |          |           |           |           |           |             |             |             |  |           |             |             |  |           |              |           |          |           |         |           |         |           |              |         |          |  |           |              |         |   |               |         |          |          |              |          |          |          |  |               |         |         |         |              |         |         |         |  |             |           |             |             |             |             |           |             |           |           |           |           |           |           |           |           |
| ↖ 732 / 1043   | ↘ 2 / 6      | ↙ 4 / 5      | ↗ 3 / 4     |             |          |           |           |           |           |             |             |             |  |           |             |             |  |           |              |           |          |           |         |           |         |           |              |         |          |  |           |              |         |   |               |         |          |          |              |          |          |          |  |               |         |         |         |              |         |         |         |  |             |           |             |             |             |             |           |             |           |           |           |           |           |           |           |           |
| ← 776 / 474  | ↘ 33 / 40    | ↙ 198 / 217  | ↗ 195 / 216 |             |          |           |           |           |           |             |             |             |  |           |             |             |  |           |              |           |          |           |         |           |         |           |              |         |          |  |           |              |         |   |               |         |          |          |              |          |          |          |  |               |         |         |         |              |         |         |         |  |             |           |             |             |             |             |           |             |           |           |           |           |           |           |           |           |
| ↖ 424 / 721  | ↘ 503 / 961  | ↙ 10 / 12    | ↗ 949 / 719 |             |          |           |           |           |           |             |             |             |  |           |             |             |  |           |              |           |          |           |         |           |         |           |              |         |          |  |           |              |         |   |               |         |          |          |              |          |          |          |  |               |         |         |         |              |         |         |         |  |             |           |             |             |             |             |           |             |           |           |           |           |           |           |           |           |
| ↖ 13 / 12  | ↘ 28 / 44    | ↙ 26 / 30    | ↗ 30 / 30   |             |          |           |           |           |           |             |             |             |  |           |             |             |  |           |              |           |          |           |         |           |         |           |              |         |          |  |           |              |         |   |               |         |          |          |              |          |          |          |  |               |         |         |         |              |         |         |         |  |             |           |             |             |             |             |           |             |           |           |           |           |           |           |           |           |
| ↖ 13 / 12  | ↘ 28 / 44    | ↙ 26 / 30    | ↗ 30 / 30   |             |          |           |           |           |           |             |             |             |  |           |             |             |  |           |              |           |          |           |         |           |         |           |              |         |          |  |           |              |         |   |               |         |          |          |              |          |          |          |  |               |         |         |         |              |         |         |         |  |             |           |             |             |             |             |           |             |           |           |           |           |           |           |           |           |

LSA

FIGURE 8A

Legend

123 / 456

AM / PM Volume

South Shores Church Master Plan  
Existing Plus Project Peak-Hour Traffic Volumes





|   |                                   |                                |                                |                                       |    |    |    |    |     |     |    |     |   |    |     |   |    |    |     |   |  |    |     |    |     |    |   |    |    |    |     |   |   |      |     |    |    |   |      |    |    |    |   |      |    |   |   |     |   |   |   |   |     |    |     |     |     |     |    |     |    |    |    |    |
|---|-----------------------------------|--------------------------------|--------------------------------|---------------------------------------|----|----|----|----|-----|-----|----|-----|---|----|-----|---|----|----|-----|---|--|----|-----|----|-----|----|---|----|----|----|-----|---|---|------|-----|----|----|---|------|----|----|----|---|------|----|---|---|-----|---|---|---|---|-----|----|-----|-----|-----|-----|----|-----|----|----|----|----|
| <table border="1"> <tr><td>5</td><td>776</td><td>210</td><td>165</td></tr> <tr><td>13</td><td>43</td><td>83</td><td>89</td></tr> <tr><td>696</td><td>217</td><td>61</td><td>158</td></tr> <tr><td>8</td><td>26</td><td>816</td><td>4</td></tr> <tr><td>33</td><td>63</td><td>104</td><td>8</td></tr> </table> | 5                                 | 776                            | 210                            | 165                                   | 13 | 43 | 83 | 89 | 696 | 217 | 61 | 158 | 8 | 26 | 816 | 4 | 33 | 63 | 104 | 8 | <table border="1"> <tr><td>40</td><td>943</td><td>56</td><td>104</td></tr> <tr><td>32</td><td>2</td><td>20</td><td>33</td></tr> <tr><td>63</td><td>816</td><td>4</td><td>8</td></tr> <tr><td>1041</td><td>765</td><td>26</td><td>88</td></tr> </table> | 40 | 943 | 56 | 104 | 32 | 2 | 20 | 33 | 63 | 816 | 4 | 8 | 1041 | 765 | 26 | 88 | <table border="1"> <tr><td>1041</td><td>88</td><td>26</td><td>88</td></tr> </table> | 1041 | 88 | 26 | 88 | <table border="1"> <tr><td>1030</td><td>13</td><td>6</td><td>8</td></tr> <tr><td>784</td><td>8</td><td>6</td><td>8</td></tr> </table> | 1030 | 13 | 6 | 8 | 784 | 8 | 6 | 8 | <table border="1"> <tr><td>519</td><td>33</td><td>315</td><td>234</td></tr> <tr><td>442</td><td>634</td><td>14</td><td>814</td></tr> <tr><td>27</td><td>26</td><td>19</td><td>27</td></tr> </table> | 519 | 33 | 315 | 234 | 442 | 634 | 14 | 814 | 27 | 26 | 19 | 27 |
| 5   | 776                               | 210                            | 165                            |                                       |    |    |    |    |     |     |    |     |   |    |     |   |    |    |     |   |  |    |     |    |     |    |   |    |    |    |     |   |   |      |     |    |    |   |      |    |    |    |   |      |    |   |   |     |   |   |   |   |     |    |     |     |     |     |    |     |    |    |    |    |
| 13  | 43                                | 83                             | 89                             |                                       |    |    |    |    |     |     |    |     |   |    |     |   |    |    |     |   |  |    |     |    |     |    |   |    |    |    |     |   |   |      |     |    |    |   |      |    |    |    |   |      |    |   |   |     |   |   |   |   |     |    |     |     |     |     |    |     |    |    |    |    |
| 696   | 217                               | 61                             | 158                            |                                       |    |    |    |    |     |     |    |     |   |    |     |   |    |    |     |   |  |    |     |    |     |    |   |    |    |    |     |   |   |      |     |    |    |   |      |    |    |    |   |      |    |   |   |     |   |   |   |   |     |    |     |     |     |     |    |     |    |    |    |    |
| 8   | 26                                | 816                            | 4                              |                                       |    |    |    |    |     |     |    |     |   |    |     |   |    |    |     |   |  |    |     |    |     |    |   |    |    |    |     |   |   |      |     |    |    |   |      |    |    |    |   |      |    |   |   |     |   |   |   |   |     |    |     |     |     |     |    |     |    |    |    |    |
| 33  | 63                                | 104                            | 8                              |                                       |    |    |    |    |     |     |    |     |   |    |     |   |    |    |     |   |  |    |     |    |     |    |   |    |    |    |     |   |   |      |     |    |    |   |      |    |    |    |   |      |    |   |   |     |   |   |   |   |     |    |     |     |     |     |    |     |    |    |    |    |
| 40  | 943                               | 56                             | 104                            |                                       |    |    |    |    |     |     |    |     |   |    |     |   |    |    |     |   |  |    |     |    |     |    |   |    |    |    |     |   |   |      |     |    |    |   |      |    |    |    |   |      |    |   |   |     |   |   |   |   |     |    |     |     |     |     |    |     |    |    |    |    |
| 32  | 2                                 | 20                             | 33                             |                                       |    |    |    |    |     |     |    |     |   |    |     |   |    |    |     |   |  |    |     |    |     |    |   |    |    |    |     |   |   |      |     |    |    |   |      |    |    |    |   |      |    |   |   |     |   |   |   |   |     |    |     |     |     |     |    |     |    |    |    |    |
| 63  | 816                               | 4                              | 8                              |                                       |    |    |    |    |     |     |    |     |   |    |     |   |    |    |     |   |  |    |     |    |     |    |   |    |    |    |     |   |   |      |     |    |    |   |      |    |    |    |   |      |    |   |   |     |   |   |   |   |     |    |     |     |     |     |    |     |    |    |    |    |
| 1041  | 765                               | 26                             | 88                             |                                       |    |    |    |    |     |     |    |     |   |    |     |   |    |    |     |   |  |    |     |    |     |    |   |    |    |    |     |   |   |      |     |    |    |   |      |    |    |    |   |      |    |   |   |     |   |   |   |   |     |    |     |     |     |     |    |     |    |    |    |    |
| 1041  | 88                                | 26                             | 88                             |                                       |    |    |    |    |     |     |    |     |   |    |     |   |    |    |     |   |  |    |     |    |     |    |   |    |    |    |     |   |   |      |     |    |    |   |      |    |    |    |   |      |    |   |   |     |   |   |   |   |     |    |     |     |     |     |    |     |    |    |    |    |
| 1030  | 13                                | 6                              | 8                              |                                       |    |    |    |    |     |     |    |     |   |    |     |   |    |    |     |   |  |    |     |    |     |    |   |    |    |    |     |   |   |      |     |    |    |   |      |    |    |    |   |      |    |   |   |     |   |   |   |   |     |    |     |     |     |     |    |     |    |    |    |    |
| 784   | 8                                 | 6                              | 8                              |                                       |    |    |    |    |     |     |    |     |   |    |     |   |    |    |     |   |  |    |     |    |     |    |   |    |    |    |     |   |   |      |     |    |    |   |      |    |    |    |   |      |    |   |   |     |   |   |   |   |     |    |     |     |     |     |    |     |    |    |    |    |
| 519   | 33                                | 315                            | 234                            |                                       |    |    |    |    |     |     |    |     |   |    |     |   |    |    |     |   |  |    |     |    |     |    |   |    |    |    |     |   |   |      |     |    |    |   |      |    |    |    |   |      |    |   |   |     |   |   |   |   |     |    |     |     |     |     |    |     |    |    |    |    |
| 442   | 634                               | 14                             | 814                            |                                       |    |    |    |    |     |     |    |     |   |    |     |   |    |    |     |   |  |    |     |    |     |    |   |    |    |    |     |   |   |      |     |    |    |   |      |    |    |    |   |      |    |   |   |     |   |   |   |   |     |    |     |     |     |     |    |     |    |    |    |    |
| 27  | 26                                | 19                             | 27                             |                                       |    |    |    |    |     |     |    |     |   |    |     |   |    |    |     |   |  |    |     |    |     |    |   |    |    |    |     |   |   |      |     |    |    |   |      |    |    |    |   |      |    |   |   |     |   |   |   |   |     |    |     |     |     |     |    |     |    |    |    |    |
| 1 Crown Valley Pkwy/Camino Del Avion  | 2 Crown Valley Pkwy/Sea Island Dr | 3 Crown Valley Pkwy/Church Dwy | 4 Crown Valley Pkwy/Lumeria Ln | 5 Crown Valley Pkwy/Pacific Coast Hwy |    |    |    |    |     |     |    |     |   |    |     |   |    |    |     |   |  |    |     |    |     |    |   |    |    |    |     |   |   |      |     |    |    |   |      |    |    |    |   |      |    |   |   |     |   |   |   |   |     |    |     |     |     |     |    |     |    |    |    |    |

LSA

FIGURE 8B

Legend

123456

Sunday Mid-day Volume

South Shores Church Master Plan  
Existing Plus Project Peak-Hour Traffic Volumes



Therefore, the project would not conflict with any plan, ordinance, and policy establishing measures of effectiveness for the performance of the circulation system, or CMP (i.e., LOS standards) in the existing conditions.

## **FUTURE PLUS PROJECT CONDITION**

To determine the future buildout (2025) plus project condition, traffic generated by the project was added to the future traffic volumes at each study area intersection. Figures 9a and 9b illustrate the resulting future plus project peak-hour traffic volumes. The future plus project peak-hour LOS analysis for the study area intersections is presented in Table E.

As Table E indicates, all study area intersections are anticipated to operate at satisfactory LOS (defined as LOS C or better for signalized intersections and LOS D or better for unsignalized intersections) with the addition of project traffic during the weekday and Sunday peak hours. Therefore, the project would not conflict with any plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system or the CMP (i.e., LOS standards) in the future conditions.

## **CIRCULATION AND ACCESS ANALYSIS**

As shown on the site plan (Figure 2), two driveways will continue to provide access to the project site: a full-access driveway (the east leg of the signalized intersection of Crown Valley Parkway/Sea Island Drive) and a RIRO driveway located south along Crown Valley Parkway.

A queuing analysis was conducted to determine the potential queuing of vehicles entering (i.e., making northbound right turns and southbound left turns) and exiting (i.e., making westbound left turns, proceeding westbound through, and making westbound right turns) the project site at the Crown Valley Parkway/Sea Island Drive–full-access driveway, as well as entering (i.e., making northbound right turns) and exiting (i.e., making westbound right turns) at the Crown Valley Parkway/RIRO driveway. The HCM 2000 analysis was conducted in Traffix to generate queuing reports (provided in Appendix F) for these two intersections under existing plus project and future plus project conditions.

The queuing results for the Crown Valley Parkway/Sea Island Drive–full-access driveway and the Crown Valley Parkway/RIRO driveway are shown in Table G.





|  |                                   |                                |                                |                                       |    |    |    |     |    |     |     |    |   |    |   |   |    |   |    |    |  |  |     |   |   |    |      |    |     |    |   |    |   |   |    |    |    |  |  |     |   |  |      |    |    |  |      |    |   |     |   |  |  |     |    |     |     |     |     |    |      |  |  |  |    |  |  |  |    |  |  |  |    |
|--|-----------------------------------|--------------------------------|--------------------------------|---------------------------------------|----|----|----|-----|----|-----|-----|----|---|----|---|---|----|---|----|----|--|--|-----|---|---|----|------|----|-----|----|---|----|---|---|----|----|----|--|--|-----|---|--|------|----|----|--|------|----|---|-----|---|--|--|-----|----|-----|-----|-----|-----|----|------|--|--|--|----|--|--|--|----|--|--|--|----|
| <table border="1"> <tr><td>6</td><td>883</td><td>233</td><td>183</td></tr> <tr><td>14</td><td>48</td><td>92</td><td>175</td></tr> <tr><td>99</td><td>789</td><td>240</td><td>68</td></tr> <tr><td>2</td><td>32</td><td>2</td><td>3</td></tr> <tr><td>20</td><td>2</td><td>33</td><td>63</td></tr> <tr><td></td><td></td><td>923</td><td>8</td></tr> </table> | 6                                 | 883                            | 233                            | 183                                   | 14 | 48 | 92 | 175 | 99 | 789 | 240 | 68 | 2 | 32 | 2 | 3 | 20 | 2 | 33 | 63 |  |  | 923 | 8 | <table border="1"> <tr><td>40</td><td>1071</td><td>56</td><td>104</td></tr> <tr><td>32</td><td>2</td><td>33</td><td>3</td></tr> <tr><td>2</td><td>20</td><td>33</td><td>63</td></tr> <tr><td></td><td></td><td>923</td><td>8</td></tr> </table> | 40 | 1071 | 56 | 104 | 32 | 2 | 33 | 3 | 2 | 20 | 33 | 63 |  |  | 923 | 8 | <table border="1"> <tr><td>1177</td><td>88</td><td>26</td></tr> </table> | 1177 | 88 | 26 | <table border="1"> <tr><td>1165</td><td>13</td><td>6</td></tr> <tr><td>887</td><td>8</td><td></td></tr> </table> | 1165 | 13 | 6 | 887 | 8 |  | <table border="1"> <tr><td>575</td><td>37</td><td>373</td><td>278</td></tr> <tr><td>489</td><td>897</td><td>16</td><td>1101</td></tr> <tr><td></td><td></td><td></td><td>30</td></tr> <tr><td></td><td></td><td></td><td>29</td></tr> <tr><td></td><td></td><td></td><td>21</td></tr> </table> | 575 | 37 | 373 | 278 | 489 | 897 | 16 | 1101 |  |  |  | 30 |  |  |  | 29 |  |  |  | 21 |
| 6  | 883                               | 233                            | 183                            |                                       |    |    |    |     |    |     |     |    |   |    |   |   |    |   |    |    |  |  |     |   |   |    |      |    |     |    |   |    |   |   |    |    |    |  |  |     |   |  |      |    |    |  |      |    |   |     |   |  |  |     |    |     |     |     |     |    |      |  |  |  |    |  |  |  |    |  |  |  |    |
| 14   | 48                                | 92                             | 175                            |                                       |    |    |    |     |    |     |     |    |   |    |   |   |    |   |    |    |  |  |     |   |   |    |      |    |     |    |   |    |   |   |    |    |    |  |  |     |   |  |      |    |    |  |      |    |   |     |   |  |  |     |    |     |     |     |     |    |      |  |  |  |    |  |  |  |    |  |  |  |    |
| 99   | 789                               | 240                            | 68                             |                                       |    |    |    |     |    |     |     |    |   |    |   |   |    |   |    |    |  |  |     |   |   |    |      |    |     |    |   |    |   |   |    |    |    |  |  |     |   |  |      |    |    |  |      |    |   |     |   |  |  |     |    |     |     |     |     |    |      |  |  |  |    |  |  |  |    |  |  |  |    |
| 2  | 32                                | 2                              | 3                              |                                       |    |    |    |     |    |     |     |    |   |    |   |   |    |   |    |    |  |  |     |   |   |    |      |    |     |    |   |    |   |   |    |    |    |  |  |     |   |  |      |    |    |  |      |    |   |     |   |  |  |     |    |     |     |     |     |    |      |  |  |  |    |  |  |  |    |  |  |  |    |
| 20   | 2                                 | 33                             | 63                             |                                       |    |    |    |     |    |     |     |    |   |    |   |   |    |   |    |    |  |  |     |   |   |    |      |    |     |    |   |    |   |   |    |    |    |  |  |     |   |  |      |    |    |  |      |    |   |     |   |  |  |     |    |     |     |     |     |    |      |  |  |  |    |  |  |  |    |  |  |  |    |
|  |                                   | 923                            | 8                              |                                       |    |    |    |     |    |     |     |    |   |    |   |   |    |   |    |    |  |  |     |   |   |    |      |    |     |    |   |    |   |   |    |    |    |  |  |     |   |  |      |    |    |  |      |    |   |     |   |  |  |     |    |     |     |     |     |    |      |  |  |  |    |  |  |  |    |  |  |  |    |
| 40   | 1071                              | 56                             | 104                            |                                       |    |    |    |     |    |     |     |    |   |    |   |   |    |   |    |    |  |  |     |   |   |    |      |    |     |    |   |    |   |   |    |    |    |  |  |     |   |  |      |    |    |  |      |    |   |     |   |  |  |     |    |     |     |     |     |    |      |  |  |  |    |  |  |  |    |  |  |  |    |
| 32   | 2                                 | 33                             | 3                              |                                       |    |    |    |     |    |     |     |    |   |    |   |   |    |   |    |    |  |  |     |   |   |    |      |    |     |    |   |    |   |   |    |    |    |  |  |     |   |  |      |    |    |  |      |    |   |     |   |  |  |     |    |     |     |     |     |    |      |  |  |  |    |  |  |  |    |  |  |  |    |
| 2  | 20                                | 33                             | 63                             |                                       |    |    |    |     |    |     |     |    |   |    |   |   |    |   |    |    |  |  |     |   |   |    |      |    |     |    |   |    |   |   |    |    |    |  |  |     |   |  |      |    |    |  |      |    |   |     |   |  |  |     |    |     |     |     |     |    |      |  |  |  |    |  |  |  |    |  |  |  |    |
|  |                                   | 923                            | 8                              |                                       |    |    |    |     |    |     |     |    |   |    |   |   |    |   |    |    |  |  |     |   |   |    |      |    |     |    |   |    |   |   |    |    |    |  |  |     |   |  |      |    |    |  |      |    |   |     |   |  |  |     |    |     |     |     |     |    |      |  |  |  |    |  |  |  |    |  |  |  |    |
| 1177   | 88                                | 26                             |                                |                                       |    |    |    |     |    |     |     |    |   |    |   |   |    |   |    |    |  |  |     |   |   |    |      |    |     |    |   |    |   |   |    |    |    |  |  |     |   |  |      |    |    |  |      |    |   |     |   |  |  |     |    |     |     |     |     |    |      |  |  |  |    |  |  |  |    |  |  |  |    |
| 1165   | 13                                | 6                              |                                |                                       |    |    |    |     |    |     |     |    |   |    |   |   |    |   |    |    |  |  |     |   |   |    |      |    |     |    |   |    |   |   |    |    |    |  |  |     |   |  |      |    |    |  |      |    |   |     |   |  |  |     |    |     |     |     |     |    |      |  |  |  |    |  |  |  |    |  |  |  |    |
| 887  | 8                                 |                                |                                |                                       |    |    |    |     |    |     |     |    |   |    |   |   |    |   |    |    |  |  |     |   |   |    |      |    |     |    |   |    |   |   |    |    |    |  |  |     |   |  |      |    |    |  |      |    |   |     |   |  |  |     |    |     |     |     |     |    |      |  |  |  |    |  |  |  |    |  |  |  |    |
| 575  | 37                                | 373                            | 278                            |                                       |    |    |    |     |    |     |     |    |   |    |   |   |    |   |    |    |  |  |     |   |   |    |      |    |     |    |   |    |   |   |    |    |    |  |  |     |   |  |      |    |    |  |      |    |   |     |   |  |  |     |    |     |     |     |     |    |      |  |  |  |    |  |  |  |    |  |  |  |    |
| 489  | 897                               | 16                             | 1101                           |                                       |    |    |    |     |    |     |     |    |   |    |   |   |    |   |    |    |  |  |     |   |   |    |      |    |     |    |   |    |   |   |    |    |    |  |  |     |   |  |      |    |    |  |      |    |   |     |   |  |  |     |    |     |     |     |     |    |      |  |  |  |    |  |  |  |    |  |  |  |    |
|  |                                   |                                | 30                             |                                       |    |    |    |     |    |     |     |    |   |    |   |   |    |   |    |    |  |  |     |   |   |    |      |    |     |    |   |    |   |   |    |    |    |  |  |     |   |  |      |    |    |  |      |    |   |     |   |  |  |     |    |     |     |     |     |    |      |  |  |  |    |  |  |  |    |  |  |  |    |
|  |                                   |                                | 29                             |                                       |    |    |    |     |    |     |     |    |   |    |   |   |    |   |    |    |  |  |     |   |   |    |      |    |     |    |   |    |   |   |    |    |    |  |  |     |   |  |      |    |    |  |      |    |   |     |   |  |  |     |    |     |     |     |     |    |      |  |  |  |    |  |  |  |    |  |  |  |    |
|  |                                   |                                | 21                             |                                       |    |    |    |     |    |     |     |    |   |    |   |   |    |   |    |    |  |  |     |   |   |    |      |    |     |    |   |    |   |   |    |    |    |  |  |     |   |  |      |    |    |  |      |    |   |     |   |  |  |     |    |     |     |     |     |    |      |  |  |  |    |  |  |  |    |  |  |  |    |
| 1 Crown Valley Pkwy/Camino Del Avion   | 2 Crown Valley Pkwy/Sea Island Dr | 3 Crown Valley Pkwy/Church Dwy | 4 Crown Valley Pkwy/Lumeria Ln | 5 Crown Valley Pkwy/Pacific Coast Hwy |    |    |    |     |    |     |     |    |   |    |   |   |    |   |    |    |  |  |     |   |   |    |      |    |     |    |   |    |   |   |    |    |    |  |  |     |   |  |      |    |    |  |      |    |   |     |   |  |  |     |    |     |     |     |     |    |      |  |  |  |    |  |  |  |    |  |  |  |    |

LSA

FIGURE 9B

Legend

123456

Sunday Mid-day Volume

South Shores Church Master Plan  
Future Plus Project Peak-Hour Traffic Volumes

**Table G: Queuing Summary of Project Driveways**

| Driveway/<br>Movement            | Existing Plus Project Queue (vehicles) |                 |                     | Future Plus Project Queue (vehicles) |                 |                     |
|----------------------------------|--|-----------------|---------------------|--------------------------------------|-----------------|---------------------|
|                                  | AM Peak<br>Hour                        | PM Peak<br>Hour | Sunday<br>Peak Hour | AM Peak<br>Hour                      | PM Peak<br>Hour | Sunday<br>Peak Hour |
| <b>Full-Access Driveway</b>      |  |                 |                     |                                      |                 |                     |
| Northbound Right Turn            | 0                                      | 0               | 0                   | 0                                    | 0               | 0                   |
| Southbound Left Turn             | 4                                      | 1               | 4                   | 4                                    | 1               | 4                   |
| Westbound Left Turn              | 0                                      | 1               | 4                   | 0                                    | 1               | 4                   |
| Westbound Through/<br>Right Turn | 0                                      | 1               | 6                   | 0                                    | 1               | 6                   |
| <b>RIRO Driveway</b>             |  |                 |                     |                                      |                 |                     |
| Northbound Right Turn            | 0                                      | 0               | 0                   | 0                                    | 0               | 0                   |
| Westbound Right Turn             | 0                                      | 1               | 1                   | 0                                    | 1               | 1                   |

RIRO = right in right out

The lengths of the northbound right-turn and southbound left-turn pockets at the Crown Valley Parkway/Sea Island Drive–full-access driveway are 100 feet (ft) and 110 ft, respectively. The westbound left-turn and shared westbound through/right-turn lanes at this intersection are both 70 ft. An additional 80 ft of storage is provided between these two westbound lanes to the first surface parking space on site. Therefore, a total storage capacity of 220 ft is provided for vehicles exiting the site at this location. As shown in Table G, the northbound right-turn movement would not have a vehicle queue, and the southbound left-turn queues would not exceed four vehicles (or 88 ft at 22 ft per vehicle) for any of the analysis time periods or scenarios. Therefore, the existing 100 ft northbound right-turn pocket and 110 ft southbound left-turn pocket are adequate. The total westbound left-turn and westbound through/right-turn queues would not exceed two vehicles (or 44 ft at 22 ft per vehicle) for the weekday a.m. and p.m. peak hours. The total westbound left-turn and westbound through/right-turn queues would be 10 vehicles (or 220 combined ft at 22 ft per vehicle) during the Sunday peak hour. Therefore, the existing 220 ft of westbound storage is adequate. Any westbound (outbound) queues would be located on site and would not affect Crown Valley Parkway.

A queuing analysis was also conducted for the northbound right-turn and westbound right-turn movements at the Crown Valley Parkway/RIRO driveway. The northbound right-turn storage is approximately 50 ft. The westbound right-turn storage is approximately 25 ft between the back of the Crown Valley Parkway sidewalk and the first intersecting drive aisle on site. As shown in Table G, the uncontrolled northbound right-turn movement would not have a vehicle queue as there are no opposing turn movements at this location. Therefore, the existing 50 ft of northbound right-turn storage is adequate. The westbound right-turn queue would not exceed one vehicle (or 22 ft) for any of the analysis times periods or scenarios. Therefore, the 25 ft of westbound right-turn storage is adequate. Westbound (outbound) queues at this location would not affect Crown Valley Parkway.

## CONSTRUCTION ANALYSIS

### Construction Trip Generation

The project will be constructed in five phases (of which Phase 1 has five subphases) over an estimated 10-year period (with time between phases).

Based on information provided by the project applicant in Appendix G, project construction will consist of the following phases (including number of employees, trucks, and duration):

- **Phase 1A (Construction of New Preschool/Administration Building):** 20 workers, 4 delivery trucks, 25 dump trucks, 25 concrete trucks, and 13-month duration
- **Phase 1B (Demolition of Existing Buildings [Preschool, Administration and Fellowship Hall, and the Chapel]):** 15 workers, 4 dump trucks, and 3-month duration
- **Phase 1B-E1 (Earthwork):** 15 workers, 8 dump trucks, and 3-month duration
- **Phase 1B-E2 (Grading):** 15 workers, 4 delivery trucks, 12 dump trucks, 12 concrete trucks, and 3-month duration
- **Phase 1C (Construction of New Community Life Center Building):** 20 workers, 4 delivery trucks, 25 dump trucks, 25 concrete trucks, and 12-month duration
- **Phase 2 (Construction of New Christian Education Building 1):** 20 workers, 4 delivery trucks, 25 dump trucks, 25 concrete trucks, and 12-month duration
- **Phase 3 (Construction of New Christian Education Building 2):** 20 workers, 4 delivery trucks, 25 dump trucks, 25 concrete trucks, and 12-month duration
- **Phase 4 (Construction of the South Half of the Parking Structure):** 15 workers, 4 delivery trucks, 20 dump trucks, 20 concrete trucks, and 7-month duration
- **Phase 5 (Construction of the North Half of the Parking Structure):** 15 workers, 4 delivery trucks, 20 dump trucks, 20 concrete trucks, and 7-month duration

According to the City's Code Enforcement Division, the noise that emanates from construction activities is restricted between 7:00 a.m. and 8:00 p.m. Therefore, construction shall be limited to the hours between 7:00 a.m. and 8:00 p.m. on weekdays (excluding holidays). It should be noted that work hours for grading activities are further restricted by City Municipal Code between 7:00 a.m. and 5:00 p.m. on weekdays (excluding holidays). Construction workers may arrive and depart outside of the peak traffic/commute times; however, in order to present a conservative analysis, construction workers are assumed to arrive after 7:00 a.m. (during the a.m. peak hour) and depart after 5:00 p.m. (during the p.m. peak hour). Truck trips may occur throughout the day (between 7:00 a.m. and 5:00 p.m.). A uniform distribution of trucks has been assumed for the 10-hour period between 7:00 a.m. and 5:00 p.m., although trucking/hauling hours may be further restricted by the City.

Heavy equipment will not be hauled to/from the project site on a daily basis; it will be dropped off at the beginning of construction and picked up at completion of construction. The majority of the construction trips would be associated with workers traveling to and from the site and daily truck activities (i.e., hauling of debris/soil and deliveries of various materials/equipment).

Table H provides a summary of the trip generation for each phase of construction. As shown in this table, Phases 1A, 1C, 2, and 3 would generate the most construction trips. These phases would generate 58 a.m. peak-hour trips (39 inbound and 19 outbound) and 58 p.m. peak-hour trips (19 inbound and 39 outbound). Construction activity is anticipated to generate more trips than typical operations of the church on a weekday.

**Table H: Construction Trip Generation Summary**

| Phase                     |   | Vehicles                  |                      |                  |             | Vehicle Trip Generation |           |           |              |           |           | PCE Trip Generation |              |            |           |              |           |           |           |
|---------------------------|---|---------------------------|----------------------|------------------|-------------|-------------------------|-----------|-----------|--------------|-----------|-----------|---------------------|--------------|------------|-----------|--------------|-----------|-----------|-----------|
| Description               | Duration  | Description               | Quantity             | Type             | PCE         | AM Peak Hour            |           |           | PM Peak Hour |           |           | ADT                 | AM Peak Hour |            |           | PM Peak Hour |           |           |           |
|                           |   |                           |                      |                  |             | in                      | out       | total     | in           | out       | total     |                     | in           | out        | total     | in           | out       | total     |           |
| <b>Typical Operations</b> |   | <b>Project Completion</b> |                      | <b>Passenger</b> | <b>1</b>    | <b>7</b>                | <b>1</b>  | <b>8</b>  | <b>6</b>     | <b>3</b>  | <b>9</b>  |                     | <b>7</b>     | <b>1</b>   | <b>8</b>  | <b>6</b>     | <b>3</b>  | <b>9</b>  |           |
| <b>1A</b>                 | <b>Construction of Preschool/ Administration Building</b> | <b>13 months</b>          | Construction Workers | 20               | Passenger   | 1                       | 20        | 0         | 20           | 0         | 20        | 20                  | 40           | 20         | 0         | 20           | 0         | 20        | 20        |
|                           |   |                           | Delivery Truck       | 4                | Large Truck | 2.5                     | 1         | 1         | 2            | 1         | 1         | 2                   | 20           | 3          | 3         | 6            | 3         | 3         | 6         |
|                           |   |                           | Dump Truck           | 25               | Large Truck | 2.5                     | 3         | 3         | 6            | 3         | 3         | 6                   | 125          | 8          | 8         | 16           | 8         | 8         | 16        |
|                           |   |                           | Concrete Truck       | 25               | Large Truck | 2.5                     | 3         | 3         | 6            | 3         | 3         | 6                   | 125          | 8          | 8         | 16           | 8         | 8         | 16        |
|                           |   |                           | <b>Total</b>         |                  |             |                         |           | <b>27</b> | <b>7</b>     | <b>34</b> | <b>7</b>  | <b>27</b>           | <b>34</b>    | <b>310</b> | <b>39</b> | <b>19</b>    | <b>58</b> | <b>19</b> | <b>39</b> |
| <b>1B</b>                 | <b>Demolition of Existing Buildings</b>                   | <b>3 months</b>           | Construction Workers | 15               | Passenger   | 1                       | 15        | 0         | 15           | 0         | 15        | 15                  | 30           | 15         | 0         | 15           | 0         | 15        | 15        |
|                           |   |                           | Dump Truck           | 4                | Large Truck | 2.5                     | 1         | 1         | 2            | 1         | 1         | 2                   | 20           | 3          | 3         | 6            | 3         | 3         | 6         |
|                           |   |                           | <b>Total</b>         |                  |             |                         | <b>16</b> | <b>1</b>  | <b>17</b>    | <b>1</b>  | <b>16</b> | <b>17</b>           | <b>50</b>    | <b>18</b>  | <b>3</b>  | <b>21</b>    | <b>3</b>  | <b>18</b> | <b>21</b> |
| <b>1B-E1</b>              | <b>Earthwork</b>  | <b>3 months</b>           | Construction Workers | 15               | Passenger   | 1                       | 15        | 0         | 15           | 0         | 15        | 15                  | 30           | 15         | 0         | 15           | 0         | 15        | 15        |
|                           |   |                           | Dump Truck           | 8                | Large Truck | 2.5                     | 1         | 1         | 2            | 1         | 1         | 2                   | 40           | 3          | 3         | 6            | 3         | 3         | 6         |
|                           |   |                           | <b>Total</b>         |                  |             |                         | <b>16</b> | <b>1</b>  | <b>17</b>    | <b>1</b>  | <b>16</b> | <b>17</b>           | <b>70</b>    | <b>18</b>  | <b>3</b>  | <b>21</b>    | <b>3</b>  | <b>18</b> | <b>21</b> |
| <b>1B-E2</b>              | <b>Grading</b>  | <b>3 months</b>           | Construction Workers | 15               | Passenger   | 1                       | 15        | 0         | 15           | 0         | 15        | 15                  | 30           | 15         | 0         | 15           | 0         | 15        | 15        |
|                           |   |                           | Delivery Truck       | 4                | Large Truck | 2.5                     | 1         | 1         | 2            | 1         | 1         | 2                   | 20           | 3          | 3         | 6            | 3         | 3         | 6         |
|                           |   |                           | Dump Truck           | 12               | Large Truck | 2.5                     | 2         | 2         | 4            | 2         | 2         | 4                   | 60           | 5          | 5         | 10           | 5         | 5         | 10        |
|                           |   |                           | Concrete Truck       | 12               | Large Truck | 2.5                     | 2         | 2         | 4            | 2         | 2         | 4                   | 60           | 5          | 5         | 10           | 5         | 5         | 10        |
|                           |   |                           | <b>Total</b>         |                  |             |                         | <b>20</b> | <b>5</b>  | <b>25</b>    | <b>5</b>  | <b>20</b> | <b>25</b>           | <b>170</b>   | <b>28</b>  | <b>13</b> | <b>41</b>    | <b>13</b> | <b>28</b> | <b>41</b> |
| <b>1C</b>                 | <b>Construction of Community Life Center Building</b>     | <b>12 months</b>          | Construction Workers | 20               | Passenger   | 1                       | 20        | 0         | 20           | 0         | 20        | 20                  | 40           | 20         | 0         | 20           | 0         | 20        | 20        |
|                           |   |                           | Delivery Truck       | 4                | Large Truck | 2.5                     | 1         | 1         | 2            | 1         | 1         | 2                   | 20           | 3          | 3         | 6            | 3         | 3         | 6         |
|                           |   |                           | Dump Truck           | 25               | Large Truck | 2.5                     | 3         | 3         | 6            | 3         | 3         | 6                   | 125          | 8          | 8         | 16           | 8         | 8         | 16        |
|                           |   |                           | Concrete Truck       | 25               | Large Truck | 2.5                     | 3         | 3         | 6            | 3         | 3         | 6                   | 125          | 8          | 8         | 16           | 8         | 8         | 16        |
|                           |   |                           | <b>Total</b>         |                  |             |                         | <b>27</b> | <b>7</b>  | <b>34</b>    | <b>7</b>  | <b>27</b> | <b>34</b>           | <b>310</b>   | <b>39</b>  | <b>19</b> | <b>58</b>    | <b>19</b> | <b>39</b> | <b>58</b> |
| <b>2</b>                  | <b>Construction of Christian Education Building 1</b>     | <b>12 months</b>          | Construction Workers | 20               | Passenger   | 1                       | 20        | 0         | 20           | 0         | 20        | 20                  | 40           | 20         | 0         | 20           | 0         | 20        | 20        |
|                           |   |                           | Delivery Truck       | 4                | Large Truck | 2.5                     | 1         | 1         | 2            | 1         | 1         | 2                   | 20           | 3          | 3         | 6            | 3         | 3         | 6         |
|                           |   |                           | Dump Truck           | 25               | Large Truck | 2.5                     | 3         | 3         | 6            | 3         | 3         | 6                   | 125          | 8          | 8         | 16           | 8         | 8         | 16        |
|                           |   |                           | Concrete Truck       | 25               | Large Truck | 2.5                     | 3         | 3         | 6            | 3         | 3         | 6                   | 125          | 8          | 8         | 16           | 8         | 8         | 16        |
|                           |   |                           | <b>Total</b>         |                  |             |                         | <b>27</b> | <b>7</b>  | <b>34</b>    | <b>7</b>  | <b>27</b> | <b>34</b>           | <b>310</b>   | <b>39</b>  | <b>19</b> | <b>58</b>    | <b>19</b> | <b>39</b> | <b>58</b> |
| <b>3</b>                  | <b>Construction of Christian Education Building 2</b>     | <b>12 months</b>          | Construction Workers | 20               | Passenger   | 1                       | 20        | 0         | 20           | 0         | 20        | 20                  | 40           | 20         | 0         | 20           | 0         | 20        | 20        |
|                           |   |                           | Delivery Truck       | 4                | Large Truck | 2.5                     | 1         | 1         | 2            | 1         | 1         | 2                   | 20           | 3          | 3         | 6            | 3         | 3         | 6         |
|                           |   |                           | Dump Truck           | 25               | Large Truck | 2.5                     | 3         | 3         | 6            | 3         | 3         | 6                   | 125          | 8          | 8         | 16           | 8         | 8         | 16        |
|                           |   |                           | Concrete Truck       | 25               | Large Truck | 2.5                     | 3         | 3         | 6            | 3         | 3         | 6                   | 125          | 8          | 8         | 16           | 8         | 8         | 16        |
|                           |   |                           | <b>Total</b>         |                  |             |                         | <b>27</b> | <b>7</b>  | <b>34</b>    | <b>7</b>  | <b>27</b> | <b>34</b>           | <b>310</b>   | <b>39</b>  | <b>19</b> | <b>58</b>    | <b>19</b> | <b>39</b> | <b>58</b> |
| <b>4</b>                  | <b>Construction of 1st Half of Parking Structure</b>      | <b>7 months</b>           | Construction Workers | 15               | Passenger   | 1                       | 15        | 0         | 15           | 0         | 15        | 15                  | 30           | 15         | 0         | 15           | 0         | 15        | 15        |
|                           |   |                           | Delivery Truck       | 4                | Large Truck | 2.5                     | 1         | 1         | 2            | 1         | 1         | 2                   | 20           | 3          | 3         | 6            | 3         | 3         | 6         |
|                           |   |                           | Dump Truck           | 20               | Large Truck | 2.5                     | 2         | 2         | 4            | 2         | 2         | 4                   | 100          | 5          | 5         | 10           | 5         | 5         | 10        |
|                           |   |                           | Concrete Truck       | 20               | Large Truck | 2.5                     | 2         | 2         | 4            | 2         | 2         | 4                   | 100          | 5          | 5         | 10           | 5         | 5         | 10        |
|                           |   |                           | <b>Total</b>         |                  |             |                         | <b>20</b> | <b>5</b>  | <b>25</b>    | <b>5</b>  | <b>20</b> | <b>25</b>           | <b>250</b>   | <b>28</b>  | <b>13</b> | <b>41</b>    | <b>13</b> | <b>28</b> | <b>41</b> |
| <b>5</b>                  | <b>Construction of 2nd Half of Parking Structure</b>      | <b>7 months</b>           | Construction Workers | 15               | Passenger   | 1                       | 15        | 0         | 15           | 0         | 15        | 15                  | 30           | 15         | 0         | 15           | 0         | 15        | 15        |
|                           |   |                           | Delivery Truck       | 4                | Large Truck | 2.5                     | 1         | 1         | 2            | 1         | 1         | 2                   | 20           | 3          | 3         | 6            | 3         | 3         | 6         |
|                           |   |                           | Dump Truck           | 20               | Large Truck | 2.5                     | 2         | 2         | 4            | 2         | 2         | 4                   | 100          | 5          | 5         | 10           | 5         | 5         | 10        |
|                           |   |                           | Concrete Truck       | 20               | Large Truck | 2.5                     | 2         | 2         | 4            | 2         | 2         | 4                   | 100          | 5          | 5         | 10           | 5         | 5         | 10        |
|                           |   |                           | <b>Total</b>         |                  |             |                         | <b>20</b> | <b>5</b>  | <b>25</b>    | <b>5</b>  | <b>20</b> | <b>25</b>           | <b>250</b>   | <b>28</b>  | <b>13</b> | <b>41</b>    | <b>13</b> | <b>28</b> | <b>41</b> |

PCE = passenger car equivalent. A worker vehicle has a PCE of 1 and a construction truck has a PCE of 2.5.

ADT = average daily traffic



## Construction LOS Analysis

To determine existing plus construction conditions, traffic generated by the most intense phases of project construction (Phases 1A, 1C, 2, and 3) was added to the existing baseline traffic volumes at the study area intersections. The existing plus construction peak-hour LOS analysis for the study area intersections is presented in Table I. The LOS worksheets are provided in Appendix H.

As Table I indicates, all study area intersections are anticipated to operate at satisfactory LOS (defined as LOS C or better for signalized intersections and LOS D or better for unsignalized intersections) with the addition of construction traffic during the weekday peak hours. Therefore, project construction would not create any temporary adverse impacts on the existing circulation system.

## Construction Management Plan

To ensure impacts to the surrounding street system are kept to a minimum, it is recommended that a Construction Management Plan for the proposed project be developed. The Construction Management Plan should be developed in coordination with the City to address the following:

- Traffic control for any street closure, detour, or other disruption to traffic circulation.
- Identify the routes that construction vehicles will utilize for the delivery of construction materials (i.e. lumber, tiles, piping, windows, etc.) and to access the site, traffic controls and detours, and a proposed construction phasing plan for the project.
- Specify the hours during which transport activities can occur and methods to mitigate construction-related impacts to adjacent streets.
- The haul route for the materials to be removed (i.e. concrete, soil, steel, etc.) during the demolition phase and/or soil import during the site preparation phase will be prepared to the satisfaction for the City's Traffic Engineering Staff Team and may include circulation modifications to help reduce construction impacts.
- Subject to the direction of the City's Traffic Engineering Staff Team, haul operations associated with the materials export/soil import may be prohibited during the a.m. and p.m. peak commute periods (i.e., between 7:00 a.m. and 9:00 a.m. and between 4:00 p.m. and 6:00 p.m.).
- Require the applicant to keep all haul routes clean and free of debris including but not limited to gravel and dirt as a result of its operations. The applicant shall clean adjacent streets, as directed by the City's Traffic Engineering Staff Team (or representative of the City Engineer), of any material which may have been spilled, tracked, or blown onto adjacent streets or areas.
- Hauling or transport of oversize loads will be allowed between the hours of 9:00 a.m. and 3:00 p.m. only, Monday through Friday, unless approved otherwise by the City Engineer. No hauling or transport will be allowed during nighttime hours on weekends or Federal holidays.
- Use of local streets shall be prohibited.
- Haul trucks entering or exiting public streets shall at all times yield to public traffic.

**Table I: Existing and Existing Plus Construction Intersection Level of Service Summary**

| Intersection |   | Existing             |     |                      |     |
|--------------|---|----------------------|-----|----------------------|-----|
|              |   | Weekday AM Peak Hour |     | Weekday PM Peak Hour |     |
|              |   | ICU or Delay         | LOS | ICU or Delay         | LOS |
| 1            | Crown Valley Parkway/Camino Del Avion                 |                      |     |                      |     |
|              | No Project  | 0.442                | A   | 0.486                | A   |
|              | Plus Construction                                     | 0.451                | A   | 0.491                | A   |
|              | $\Delta$  | 0.009                |     | 0.005                |     |
| 2            | Crown Valley Parkway/Sea Island Drive-Church Driveway |                      |     |                      |     |
|              | No Project  | 0.407                | A   | 0.390                | A   |
|              | Plus Construction                                     | 0.414                | A   | 0.416                | A   |
|              | $\Delta$  | 0.007                |     | 0.026                |     |
| 3            | Crown Valley Parkway/Church Driveway (unsignalized)   |                      |     |                      |     |
|              | No Project  | 0.0                  | A   | 12.2                 | B   |
|              | Plus Construction                                     | 10.8                 | B   | 12.4                 | B   |
|              | $\Delta$  | 10.8                 |     | 0.2                  |     |
| 4            | Crown Valley Parkway/Lumeria Lane (unsignalized)      |                      |     |                      |     |
|              | No Project  | 18.3                 | C   | 25.7                 | D   |
|              | Plus Construction                                     | 18.6                 | C   | 26.1                 | D   |
|              | $\Delta$  | 0.3                  |     | 0.4                  |     |
| 5            | Crown Valley Parkway/Pacific Coast Highway            |                      |     |                      |     |
|              | No Project  | 0.577                | A   | 0.574                | A   |
|              | Plus Construction                                     | 0.579                | A   | 0.577                | A   |
|              | $\Delta$  | 0.002                |     | 0.003                |     |

ICU = Intersection Capacity Utilization

LOS = level of service

Delay is reported in seconds (sec) for unsignalized intersections using the Highway Capacity (HCM) methodology.

 = exceeds City's LOS criteria



- If hauling operations cause any damage to existing pavement, street, curb, and/or gutter along the haul route, the applicant will be fully responsible for repairs. The repairs shall be completed to the satisfaction of the City Engineer.
- All construction-related parking and staging of vehicles will be kept out of the adjacent public roadways and will occur on-site to the extent feasible.
- This Construction Management Plan shall meet standards established in the current *California Manual on Uniform Traffic Control Device (MUTCD)*, as well as City requirements.

## PARKING ANALYSIS

Parking surveys were conducted at the site in April 2014 by NDS to determine the existing parking demand on a weekday and a Sunday. The parking surveys are included in Appendix A. LSA has identified the peak parking demand on weekdays and Sundays, based on review of the parking survey data:

- Weekday (9:45–10:00 a.m.): 193 spaces
- Sunday (10:15–10:30 a.m.): 254 spaces

Based on the NDS parking surveys, the church generates the highest parking demand on a Sunday. The peak parking demand occurs when a worship service and bible study session are both in session. On a typical Sunday, four worship services and three bible study classes are provided as follows:

- 1st Service (8:15–9:15 a.m.)
- 2nd Service (9:30–10:30 a.m.)
- Bible Study (9:30–10:30 a.m.)
- Bible Study (10:45–11:45 a.m.)
- Bible Study (10:45 a.m.–12:00 p.m.)
- 3rd Service (11:00 a.m.–12:00 p.m.)
- 4th (Remix) Service (6:00–7:30 p.m.)

Using the existing attendance for the survey days/times, the following parking rates were developed:

- Weekday (225 people): 0.86 space per person
- Sunday (379 people): 0.67 space per person

Similar to the church trip generation, parking demand is based on church operations (i.e., activities, schedules, and attendance), not building square footage. Although the proposed project would increase overall building square footage (as previously discussed and summarized in Table B), the church activities and schedules are not anticipated to change. However, in order to provide a conservative analysis, attendance was projected to grow from current conditions to project completion. Therefore, increases in attendance (people) have been utilized for purposes of estimating the peak parking demand for weekdays and Sundays for each phase of the project, including completion, as summarized in Table J.

**Table J: Project Parking Summary**

| Land Use   | Size | Units   | Parking Demand | % Demand Increase from Previous Phase | On-Site Parking Supply | Surplus/ (Deficit) <sup>2</sup> |
|--|------|---------|----------------|---------------------------------------|------------------------|---------------------------------|
| <b>Parking Rates<sup>1</sup></b>                             |      |         |                |                                       |                        |                                 |
| Church (Weekday)   |      | Person  | 0.86           | -                                     | -                      | -                               |
| Church (Sunday)  |      | Person  | 0.67           | -                                     | -                      | -                               |
| <b>Existing Peak Parking Demand (April 2014)<sup>3</sup></b> |      |         |                |                                       |                        |                                 |
| Weekday  | 225  | Persons | 193            | -                                     | 228                    | 35                              |
| Sunday   | 379  | Persons | 254            | -                                     | 228                    | (26)                            |
| <b>Projected Phase 1A Peak Parking Demand</b>                |      |         |                |                                       |                        |                                 |
| Weekday <sup>4</sup>   | 40   | Persons | 34             | -82.00%                               | 161                    | 127                             |
| Sunday   | 391  | Persons | 262            | 3.00%                                 | 161                    | (101)                           |
| <b>Projected Phase 1B Peak Parking Demand</b>                |      |         |                |                                       |                        |                                 |
| Weekday <sup>4</sup>   | 40   | Persons | 34             | 0.00%                                 | 190                    | 156                             |
| Sunday   | 391  | Persons | 262            | 0.00%                                 | 218                    | (44)                            |
| <b>Projected Phase 1B-E1 Peak Parking Demand</b>             |      |         |                |                                       |                        |                                 |
| Weekday <sup>4</sup>   | 40   | Persons | 34             | 0.00%                                 | 188                    | 154                             |
| Sunday   | 391  | Persons | 262            | 0.00%                                 | 216                    | (46)                            |
| <b>Projected Phase 1B-E2 Peak Parking Demand</b>             |      |         |                |                                       |                        |                                 |
| Weekday <sup>4</sup>   | 40   | Persons | 34             | 0.00%                                 | 188                    | 154                             |
| Sunday   | 391  | Persons | 262            | 0.00%                                 | 216                    | (46)                            |
| <b>Projected Phase 1C Peak Parking Demand</b>                |      |         |                |                                       |                        |                                 |
| Weekday <sup>4,5</sup>                                       | 40   | Persons | 34             | 0.00%                                 | 109                    | 75                              |
| Sunday <sup>6</sup>  | 391  | Persons | 262            | 0.00%                                 | 137                    | (125)                           |
| <b>Projected Phase 2 Peak Parking Demand</b>                 |      |         |                |                                       |                        |                                 |
| Weekday <sup>4</sup>   | 41   | Persons | 35             | 3.00%                                 | 253                    | 218                             |
| Sunday   | 398  | Persons | 267            | 2.00%                                 | 281                    | 14                              |
| <b>Projected Phase 3 Peak Parking Demand</b>                 |      |         |                |                                       |                        |                                 |
| Weekday <sup>4</sup>   | 42   | Persons | 36             | 3.00%                                 | 196                    | 160                             |
| Sunday   | 405  | Persons | 271            | 1.00%                                 | 224                    | (47)                            |
| <b>Projected Phase 4 Peak Parking Demand</b>                 |      |         |                |                                       |                        |                                 |
| Weekday <sup>4</sup>   | 43   | Persons | 37             | 3.00%                                 | 91                     | 54                              |
| Sunday   | 412  | Persons | 276            | 2.00%                                 | 91                     | (185)                           |
| <b>Projected Phase 5 Peak Parking Demand</b>                 |      |         |                |                                       |                        |                                 |
| Weekday <sup>4</sup>   | 44   | Persons | 38             | 3.00%                                 | 150                    | 112                             |
| Sunday   | 419  | Persons | 281            | 2.00%                                 | 150                    | (131)                           |
| <b>Projected Master Plan Peak Parking Demand</b>             |      |         |                |                                       |                        |                                 |
| Weekday  | 388  | Persons | 333            | 776.00%                               | 411                    | 78                              |
| Sunday   | 526  | Persons | 352            | 25.00%                                | 411                    | 59                              |

<sup>1</sup> Parking rates developed from surveys conducted at the church on April 27 (Sunday) and April 30 (Wednesday), 2014.

<sup>2</sup> Parking deficit requires off-site parking.

<sup>3</sup> The existing parking demand of 254 spaces on a Sunday includes vehicles parked along Crown Valley Parkway. Therefore, a 26-space deficit is shown.

<sup>4</sup> The Women's Bible Study Fellowship held on Wednesdays will be discontinued during project construction (Phases 1-5).

Therefore, a significant decrease in parking demand occurs between existing and Phase 1 conditions, and a significant increase in parking demand occurs between Phase 5 and Master Plan buildout conditions.

<sup>5</sup> After the first 2 months of Phase 1C, the on-site parking supply on weekdays increases to 253 parking spaces.

<sup>6</sup> After the first 2 months of Phase 1C, the on-site parking supply on Sundays increases to 281 parking spaces.

Based on the construction phases described above, a portion of the parking spaces will be utilized for construction activities, which would reduce the available parking supply for church members. As shown on Table J, the projected weekday and Sunday parking demand has been compared with the available spaces for each phase of construction to determine if adequate on-site parking will be provided.

Based on the results of this analysis, adequate weekday parking would be provided for each phase of construction. However, a parking deficit would occur on Sundays for Phase 1A (101 spaces), Phase 1B (44 spaces), Phases 1B-E1 and 1B-E2 (46 spaces), Phase 1C (125 spaces), Phase 3 (47 spaces), Phase 4 (185 spaces), and Phase 5 (131 spaces). Off-site parking will need to be secured by the church in order to accommodate the Sunday parking demand during project construction (with the exception of Phase 2). It should be noted that the proposed parking supply of 411 spaces at buildout is adequate for the project parking demand on weekdays and Sundays.

Parking is currently allowed on portions of Crown Valley Parkway between Camino Del Avion and PCH. This parking is proposed to be maintained during construction to assist in handling church parking and avoid negative spillover parking impacts to adjacent neighborhoods. When construction of the project is complete, the parking on Crown Valley Parkway will no longer be needed for church activity and will be removed/restricted by the City. The project will provide adequate parking on site to accommodate the parking demand without the need for any on-street parking.

## **PROJECT ALTERNATIVE**

A reduced project alternative is currently being considered. Similar to the proposed project, the reduced project alternative would demolish the existing Preschool, Administration and Fellowship Hall, and Chapel, while keeping the 19,078 sf Sanctuary. The reduced project alternative would construct a new Preschool/Administration Building, two Christian Education Buildings, a Community Life Center, and a parking structure, but the new building space (52,651 sf) would be 17,633 sf less than the proposed project (70,284 sf). Table K summarizes the reduced project alternative buildings and identifies the changes from the proposed project.

It should be noted that the church operations (i.e., activities, schedules, and attendance) for the reduced project alternative would remain the same as the proposed project. Construction of a reduced project alternative with less building space would require a similar number of construction workers and trucks as the proposed project. Therefore, additional traffic analysis of this reduced project alternative is not required as the potential impacts due to project construction have already been evaluated. Based on the results of this construction analysis, no significant temporary impacts would result.

**Table K: Reduced Project Alternative Buildings Summary**

| <b>Proposed Project Buildings<br/>(and Parking)</b> | <b>sf</b>     | <b>Reduced Project Alternative<br/>(and Parking)</b> | <b>sf</b>     |
|---|---------------|--|---------------|
| Sanctuary (to remain)                               | 19,078        | Sanctuary (to remain)                                | 19,078        |
| Preschool/Administration Building                   | 15,115        | Preschool/Administration Building                    | 13,867        |
| Community Life Center                               | 24,314        | Community Life Center                                | 11,738        |
| Christian Education Building 1                      | 15,399        | Christian Education Building 1                       | 17,258        |
| Christian Education Building 2                      | 15,456        | Christian Education Building 2                       | 9,788         |
| Surface Parking (59 net spaces)                     | -             | Surface Parking (34 net spaces)                      | -             |
| Parking Structure (352 new spaces)                  | -             | Parking Structure (330 new spaces)                   | -             |
| <b>Total Proposed Project</b>                       | <b>89,362</b> | <b>Total Reduced Project Alternative</b>             | <b>71,729</b> |

sf = square feet

Construction of the reduced project alternative would result in a reduction of the available parking supply for church members. As shown on Table L, the weekday and Sunday parking demand for the reduced project alternative has been compared with the available spaces for each construction phase to determine if adequate on-site parking will be provided. Based on the results of this analysis, adequate weekday parking would be provided for each phase of construction.

However, a parking deficit would occur on Sundays for Phase 1A (101 spaces), Phase 1B (60 spaces), Phases 1B-E1 and 1B-E2 (62 spaces), Phase 1C (141 spaces), Phase 2 (63 spaces), Phase 3 (67 spaces), Phase 4 (204 spaces), and Phase 5 (146 spaces). Off-site parking will need to be secured by the church in order to accommodate the Sunday parking demand during project construction (Phase 1A through Phase 5). It should be noted that the proposed parking supply of 364 spaces at buildout would be adequate for the reduced project alternative parking demand on weekdays and Sundays.

When construction of the reduced project alternative is complete, the parking on Crown Valley Parkway will no longer be needed for church activity and will be removed/restricted by the City. The reduced project alternative will provide adequate parking on site to accommodate the parking demand without the need for any on-street parking.

## CONCLUSIONS

Based on the results of this TIA, implementation of the South Shores Church Master Plan Project (and the reduced project alternative) would not result in any significant impacts to the surrounding roadway system. The evaluation of the study area intersection LOS shows that the addition of project traffic would not create significant adverse impacts.

A circulation and access analysis was conducted to determine the adequacy of the two project driveways on Crown Valley Parkway. Based on the results of this analysis, both driveways have sufficient storage capacity for all inbound and outbound turn movements.

**Table L: Reduced Project Alternative Parking Summary**

| Land Use   | Size | Units   | Parking Demand | % Demand Increase from Previous Phase | On-Site Parking Supply | Surplus/ (Deficit) <sup>2</sup> |
|--|------|---------|----------------|---------------------------------------|------------------------|---------------------------------|
| <b>Parking Rates<sup>1</sup></b>                             |      |         |                |                                       |                        |                                 |
| Church (Weekday)   |      | Person  | 0.86           | -                                     | -                      | -                               |
| Church (Sunday)  |      | Person  | 0.67           | -                                     | -                      | -                               |
| <b>Existing Peak Parking Demand (April 2014)<sup>3</sup></b> |      |         |                |                                       |                        |                                 |
| Weekday  | 225  | Persons | 193            | -                                     | 228                    | 35                              |
| Sunday   | 379  | Persons | 254            | -                                     | 228                    | (26)                            |
| <b>Projected Phase 1A Peak Parking Demand</b>                |      |         |                |                                       |                        |                                 |
| Weekday <sup>4</sup>   | 40   | Persons | 34             | -82.00%                               | 161                    | 127                             |
| Sunday   | 391  | Persons | 262            | 3.00%                                 | 161                    | (101)                           |
| <b>Projected Phase 1B Peak Parking Demand</b>                |      |         |                |                                       |                        |                                 |
| Weekday <sup>4</sup>   | 40   | Persons | 34             | 0.00%                                 | 174                    | 140                             |
| Sunday   | 391  | Persons | 262            | 0.00%                                 | 202                    | (60)                            |
| <b>Projected Phase 1B-E1 Peak Parking Demand</b>             |      |         |                |                                       |                        |                                 |
| Weekday <sup>4</sup>   | 40   | Persons | 34             | 0.00%                                 | 172                    | 138                             |
| Sunday   | 391  | Persons | 262            | 0.00%                                 | 200                    | (62)                            |
| <b>Projected Phase 1B-E2 Peak Parking Demand</b>             |      |         |                |                                       |                        |                                 |
| Weekday <sup>4</sup>   | 40   | Persons | 34             | 0.00%                                 | 172                    | 138                             |
| Sunday   | 391  | Persons | 262            | 0.00%                                 | 200                    | (62)                            |
| <b>Projected Phase 1C Peak Parking Demand</b>                |      |         |                |                                       |                        |                                 |
| Weekday <sup>4,5</sup>                                       | 40   | Persons | 34             | 0.00%                                 | 93                     | 59                              |
| Sunday <sup>6</sup>  | 391  | Persons | 262            | 0.00%                                 | 121                    | (141)                           |
| <b>Projected Phase 2 Peak Parking Demand</b>                 |      |         |                |                                       |                        |                                 |
| Weekday <sup>4</sup>   | 41   | Persons | 35             | 3.00%                                 | 176                    | 141                             |
| Sunday   | 398  | Persons | 267            | 2.00%                                 | 204                    | (63)                            |
| <b>Projected Phase 3 Peak Parking Demand</b>                 |      |         |                |                                       |                        |                                 |
| Weekday <sup>4</sup>   | 42   | Persons | 36             | 3.00%                                 | 176                    | 140                             |
| Sunday   | 405  | Persons | 271            | 1.00%                                 | 204                    | (67)                            |
| <b>Projected Phase 4 Peak Parking Demand</b>                 |      |         |                |                                       |                        |                                 |
| Weekday <sup>4</sup>   | 43   | Persons | 37             | 3.00%                                 | 72                     | 35                              |
| Sunday   | 412  | Persons | 276            | 2.00%                                 | 72                     | (204)                           |
| <b>Projected Phase 5 Peak Parking Demand</b>                 |      |         |                |                                       |                        |                                 |
| Weekday <sup>4</sup>   | 44   | Persons | 38             | 3.00%                                 | 135                    | 97                              |
| Sunday   | 419  | Persons | 281            | 2.00%                                 | 135                    | (146)                           |
| <b>Projected Master Plan Peak Parking Demand</b>             |      |         |                |                                       |                        |                                 |
| Weekday  | 388  | Persons | 333            | 776.00%                               | 364                    | 31                              |
| Sunday   | 526  | Persons | 352            | 25.00%                                | 364                    | 12                              |

<sup>1</sup> Parking rates developed from surveys conducted at the church on April 27 (Sunday) and April 30 (Wednesday), 2014.

<sup>2</sup> Parking deficit requires off-site parking.

<sup>3</sup> The existing parking demand of 254 spaces on a Sunday includes vehicles parked along Crown Valley Parkway. Therefore, a 26-space deficit is shown.

<sup>4</sup> The Women's Bible Study Fellowship held on Wednesdays will be discontinued during project construction (Phases 1-5).

Therefore, a significant decrease in parking demand occurs between existing and Phase 1 conditions, and a significant increase in parking demand occurs between Phase 5 and Master Plan buildout conditions.

<sup>5</sup> After the first 2 months of Phase 1C, the on-site parking supply on weekdays increases to 253 parking spaces.

<sup>6</sup> After the first 2 months of Phase 1C, the on-site parking supply on Sundays increases to 281 parking spaces.



Construction of the proposed project (and reduced project alternative) would not result in any impacts to the surrounding roadway system based on evaluation of the study area intersection LOS. The addition of construction traffic would not create any temporary adverse impacts.

During each construction phase (of the project and of the reduced project alternative), a portion of the available parking spaces will be utilized for various construction activities. As a result, a parking deficit would occur on Sundays. The project will be required to acquire off-site parking on Sundays in order to accommodate the peak parking demand of the church during construction.

**APPENDIX A**

**EXISTING COUNTS AND PARKING SURVEYS**

# ITM Peak Hour Summary

Prepared by:



National Data & Surveying Services

## Crown Valley Parkway (5667) and Pacific Island Dr/Camino Del Avion (5667), City of Laguna Niguel

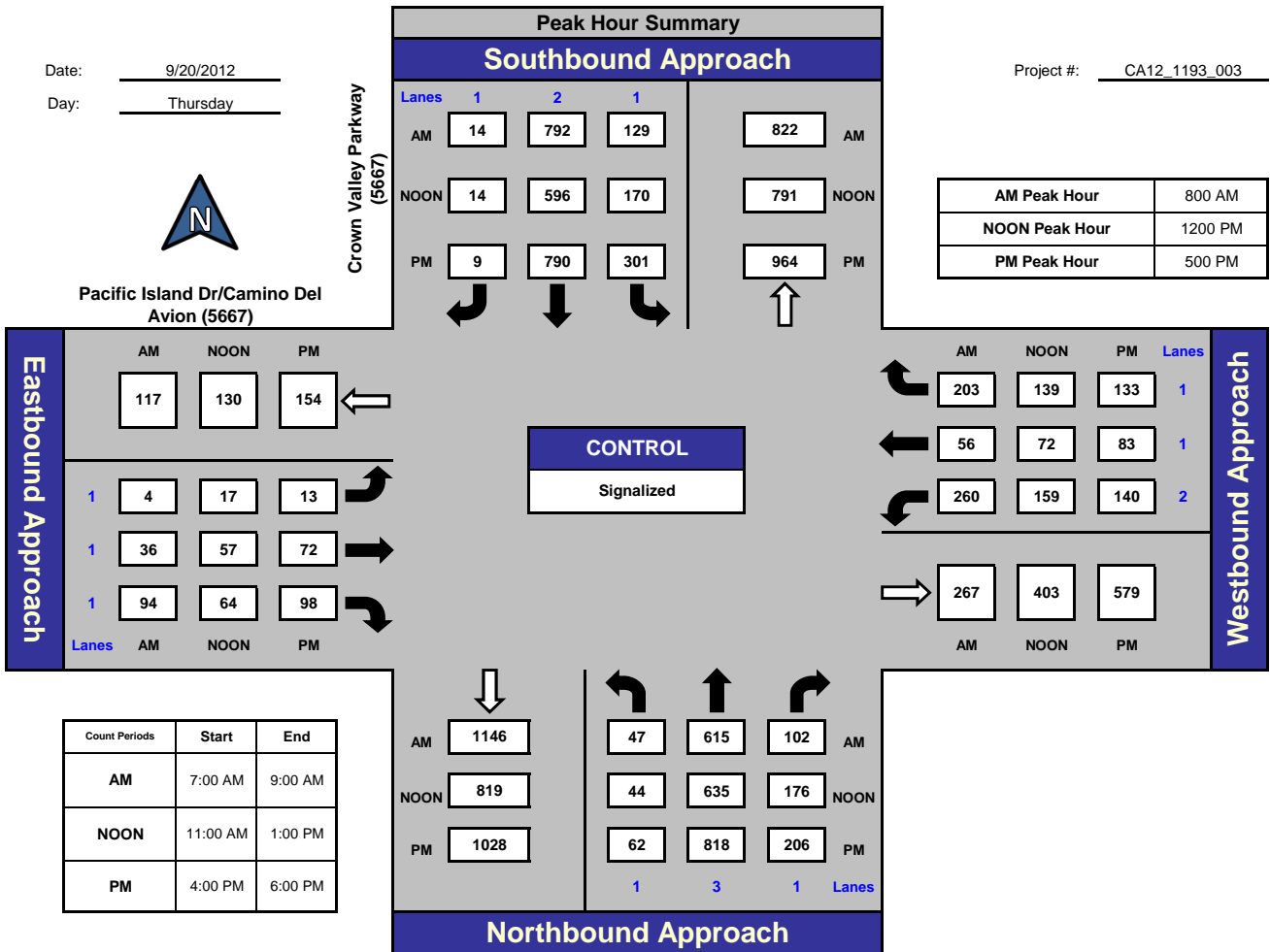
Date: 9/20/2012  
Day: Thursday

Project #: CA12\_1193\_003

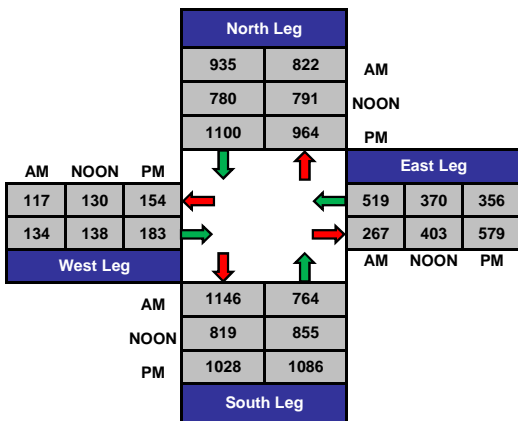


Pacific Island Dr/Camino Del Avion (5667)

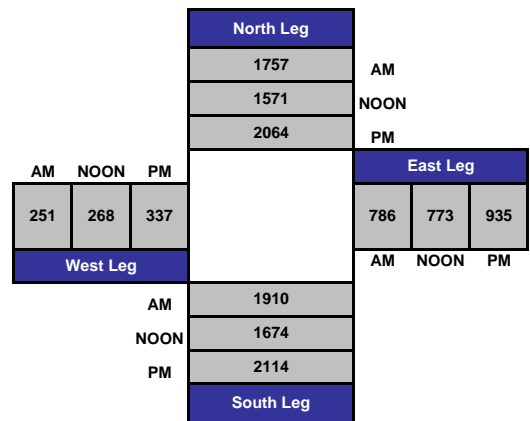
Crown Valley Parkway (5667)



### Total Ins & Outs



### Total Volume Per Leg



# ITM Peak Hour Summary

Prepared by:

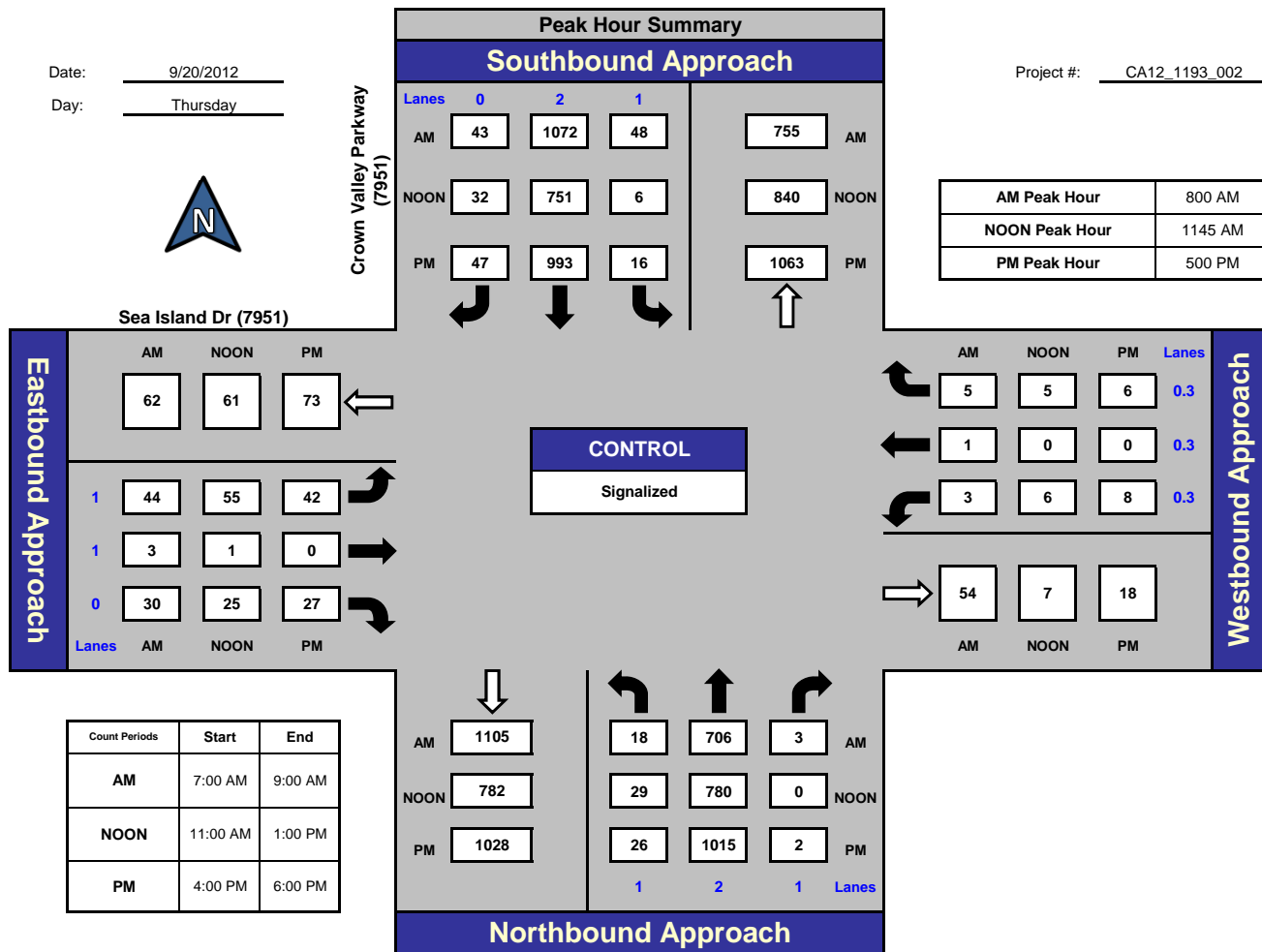


National Data & Surveying Services

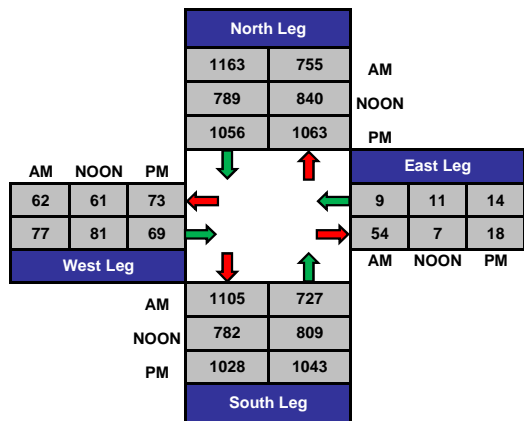
## Crown Valley Parkway (7951) and Sea Island Dr (7951), City of Laguna Niguel

Date: 9/20/2012  
Day: Thursday

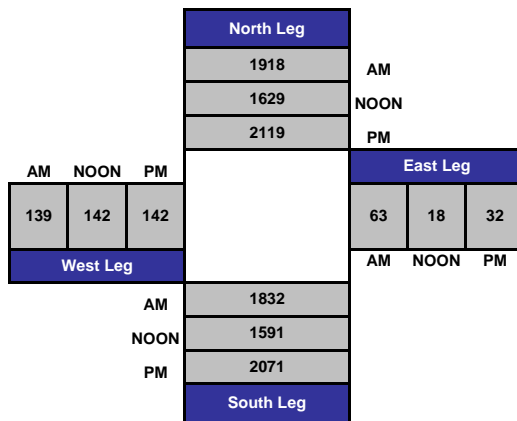
Project #: CA12\_1193\_002



### Total Ins & Outs



### Total Volume Per Leg



# Intersection Turning Movement

Prepared by:

## National Data & Surveying Services

Project ID: CA12\_1193\_002

Day: THURSDAY

City: City of Laguna Niguel

Date: 09/20/2012

AM

| NS/EW Streets:              | Crown Valley Parkway (7951) |        |       | Crown Valley Parkway (7951) |        |       | Sea Island Dr (7951) |       |        | Sea Island Dr (7951) |        |        | TOTAL        |
|-----------------------------|-----------------------------|--------|-------|-----------------------------|--------|-------|----------------------|-------|--------|----------------------|--------|--------|--------------|
|                             | NORTHBOUND                  |        |       | SOUTHBOUND                  |        |       | EASTBOUND            |       |        | WESTBOUND            |        |        |              |
| LANES:                      | NL                          | NT     | NR    | SL                          | ST     | SR    | EL                   | ET    | ER     | WL                   | WT     | WR     |              |
|                             | 1                           | 2      | 1     | 1                           | 2      | 0     | 1                    | 1     | 0      | 0.3                  | 0.3    | 0.3    |              |
| 7:00 AM                     | 2                           | 82     | 0     | 3                           | 185    | 2     | 10                   | 0     | 11     | 0                    | 0      | 0      | 295          |
| 7:15 AM                     | 5                           | 119    | 0     | 0                           | 259    | 9     | 15                   | 0     | 10     | 0                    | 0      | 0      | 417          |
| 7:30 AM                     | 5                           | 146    | 0     | 1                           | 269    | 4     | 11                   | 0     | 4      | 0                    | 0      | 0      | 440          |
| 7:45 AM                     | 8                           | 154    | 0     | 5                           | 308    | 8     | 8                    | 0     | 5      | 0                    | 0      | 0      | 496          |
| 8:00 AM                     | 4                           | 151    | 1     | 6                           | 260    | 10    | 10                   | 0     | 10     | 0                    | 0      | 1      | 453          |
| 8:15 AM                     | 7                           | 178    | 0     | 7                           | 288    | 8     | 8                    | 0     | 5      | 2                    | 0      | 3      | 506          |
| 8:30 AM                     | 1                           | 183    | 0     | 6                           | 256    | 10    | 13                   | 0     | 8      | 0                    | 0      | 0      | 477          |
| 8:45 AM                     | 6                           | 194    | 2     | 29                          | 268    | 15    | 13                   | 3     | 7      | 1                    | 1      | 1      | 540          |
| <b>TOTAL VOLUMES :</b>      | 38                          | 1207   | 3     | 57                          | 2093   | 66    | 88                   | 3     | 60     | 3                    | 1      | 5      | 3624         |
| <b>APPROACH %'s :</b>       | 3.04%                       | 96.71% | 0.24% | 2.57%                       | 94.45% | 2.98% | 58.28%               | 1.99% | 39.74% | 33.33%               | 11.11% | 55.56% |              |
| <b>PEAK HR START TIME :</b> | 800 AM                      |        |       |                             |        |       |                      |       |        |                      |        |        | <b>TOTAL</b> |
| <b>PEAK HR VOL :</b>        | 18                          | 706    | 3     | 48                          | 1072   | 43    | 44                   | 3     | 30     | 3                    | 1      | 5      | 1976         |
| <b>PEAK HR FACTOR :</b>     | 0.900                       |        |       | 0.932                       |        |       | 0.837                |       |        | 0.450                |        |        | 0.915        |

CONTROL : Signalized



# Intersection Turning Movement

Prepared by:

## National Data & Surveying Services

Project ID: CA12\_1193\_002

Day: THURSDAY

City: City of Laguna Niguel

Date: 09/20/2012

PM

| NS/EW Streets:              | Crown Valley Parkway (7951) | Crown Valley Parkway (7951) | Sea Island Dr (7951) | Sea Island Dr (7951) |        |       |           |       |        |           |       |        |              |
|-----------------------------|-----------------------------|-----------------------------|----------------------|----------------------|--------|-------|-----------|-------|--------|-----------|-------|--------|--------------|
|                             | NORTHBOUND                  |                             |                      | SOUTHBOUND           |        |       | EASTBOUND |       |        | WESTBOUND |       |        |              |
| LANES:                      | NL                          | NT                          | NR                   | SL                   | ST     | SR    | EL        | ET    | ER     | WL        | WT    | WR     | TOTAL        |
|                             | 1                           | 2                           | 1                    | 1                    | 2      | 0     | 1         | 1     | 0      | 0.3       | 0.3   | 0.3    |              |
| 4:00 PM                     | 6                           | 255                         | 0                    | 2                    | 250    | 18    | 14        |       | 3      | 1         | 0     | 5      | 554          |
| 4:15 PM                     | 7                           | 252                         | 0                    | 4                    | 204    | 10    | 10        |       | 10     | 4         | 1     | 6      | 508          |
| 4:30 PM                     | 6                           | 226                         | 0                    | 5                    | 209    | 9     | 4         |       | 5      | 0         | 0     | 2      | 466          |
| 4:45 PM                     | 15                          | 253                         | 0                    | 4                    | 207    | 10    | 7         |       | 3      | 0         | 0     | 3      | 502          |
| 5:00 PM                     | 9                           | 260                         | 0                    | 2                    | 231    | 11    | 19        |       | 5      | 1         | 0     | 1      | 539          |
| 5:15 PM                     | 7                           | 264                         | 0                    | 4                    | 267    | 13    | 12        |       | 11     | 0         | 0     | 1      | 579          |
| 5:30 PM                     | 4                           | 258                         | 1                    | 4                    | 251    | 9     | 5         |       | 2      | 6         | 0     | 1      | 541          |
| 5:45 PM                     | 6                           | 233                         | 1                    | 6                    | 244    | 14    | 6         |       | 9      | 1         | 0     | 3      | 523          |
| <b>TOTAL VOLUMES :</b>      | 60                          | 2001                        | 2                    | 31                   | 1863   | 94    | 77        | 0     | 48     | 13        | 1     | 22     | 4212         |
| <b>APPROACH %'s :</b>       | 2.91%                       | 96.99%                      | 0.10%                | 1.56%                | 93.71% | 4.73% | 61.60%    | 0.00% | 38.40% | 36.11%    | 2.78% | 61.11% |              |
| <b>PEAK HR START TIME :</b> | 500 PM                      |                             |                      |                      |        |       |           |       |        |           |       |        | <b>TOTAL</b> |
| <b>PEAK HR VOL :</b>        | 26                          | 1015                        | 2                    | 16                   | 993    | 47    | 42        | 0     | 27     | 8         | 0     | 6      | 2182         |
| <b>PEAK HR FACTOR :</b>     | 0.962                       |                             |                      | 0.930                |        |       | 0.719     |       |        | 0.500     |       |        | 0.942        |

CONTROL : Signalized

# Intersection Turning Movement

Prepared by:



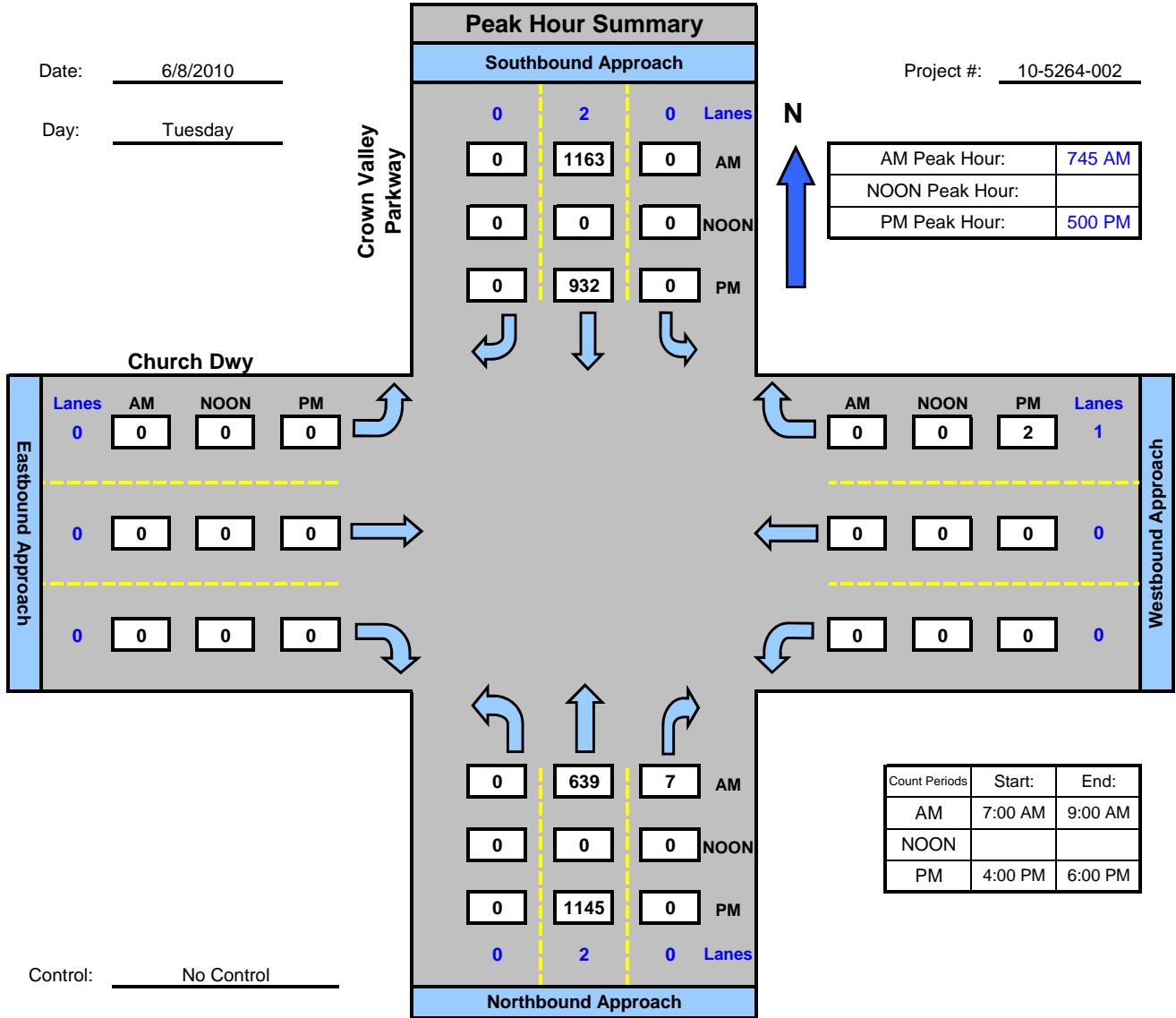
National Data & Surveying Services

## Crown Valley Parkway and Church Dwy , City of Dana Point

Date: 6/8/2010

Day: Tuesday

Project #: 10-5264-002



# Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Crown Valley Parkway

DATE: 06/08/2010

LOCATION: City of Dana Point

E-W STREET: Church Dwy

DAY: TUESDAY

PROJECT# 10-5264-002

| LANES:  | NORTHBOUND |     |    | SOUTHBOUND |     |    | EASTBOUND |    |    | WESTBOUND |    |    | TOTAL |
|---------|------------|-----|----|------------|-----|----|-----------|----|----|-----------|----|----|-------|
|         | NL         | NT  | NR | SL         | ST  | SR | EL        | ET | ER | WL        | WT | WR |       |
|         | 0          | 2   | 0  | 0          | 2   | 0  | 0         | 0  | 0  | 0         | 0  | 1  |       |
| 7:00 AM |            | 79  | 1  |            | 166 |    |           |    |    |           |    |    | 246   |
| 7:15 AM |            | 99  | 0  |            | 190 |    |           |    |    |           |    |    | 289   |
| 7:30 AM |            | 151 | 0  |            | 272 |    |           |    |    |           |    |    | 423   |
| 7:45 AM |            | 154 | 2  |            | 278 |    |           |    |    |           |    |    | 434   |
| 8:00 AM |            | 143 | 0  |            | 284 |    |           |    |    |           |    |    | 427   |
| 8:15 AM |            | 148 | 2  |            | 315 |    |           |    |    |           |    |    | 465   |
| 8:30 AM |            | 194 | 3  |            | 286 |    |           |    |    |           |    |    | 483   |
| 8:45 AM |            | 158 | 4  |            | 245 |    |           |    |    |           |    |    | 407   |

| TOTAL VOLUMES = | NL | NT   | NR | SL | ST   | SR | EL | ET | ER | WL | WT | WR | TOTAL |
|-----------------|----|------|----|----|------|----|----|----|----|----|----|----|-------|
|                 | 0  | 1126 | 12 | 0  | 2036 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 3174  |

AM Peak Hr Begins at: 745 AM

| PEAK VOLUMES =   | NL | NT    | NR | SL | ST    | SR | EL | ET    | ER | WL | WT    | WR | TOTAL |
|------------------|----|-------|----|----|-------|----|----|-------|----|----|-------|----|-------|
|                  | 0  | 639   | 7  | 0  | 1163  | 0  | 0  | 0     | 0  | 0  | 0     | 0  | 1809  |
| PEAK HR. FACTOR: |    | 0.820 |    |    | 0.923 |    |    | 0.000 |    |    | 0.000 |    | 0.936 |

CONTROL: No Control

# Intersection Turning Movement

Prepared by:

## National Data & Surveying Services

N-S STREET: [Crown Valley Parkway](#)

DATE: [06/08/2010](#)

LOCATION: [City of Dana Point](#)

E-W STREET: [Church Dwy](#)

DAY: [TUESDAY](#)

PROJECT# [10-5264-002](#)

| LANES:  | NORTHBOUND |     |    | SOUTHBOUND |     |    | EASTBOUND |    |    | WESTBOUND |    |    | TOTAL |
|---------|------------|-----|----|------------|-----|----|-----------|----|----|-----------|----|----|-------|
|         | NL         | NT  | NR | SL         | ST  | SR | EL        | ET | ER | WL        | WT | WR |       |
|         | 0          | 2   | 0  | 0          | 2   | 0  | 0         | 0  | 0  | 0         | 0  | 1  |       |
| 4:00 PM |            | 294 | 0  |            | 245 |    |           |    |    |           |    | 0  | 539   |
| 4:15 PM |            | 276 | 1  |            | 234 |    |           |    |    |           |    | 0  | 511   |
| 4:30 PM |            | 280 | 0  |            | 249 |    |           |    |    |           |    | 0  | 529   |
| 4:45 PM |            | 274 | 1  |            | 205 |    |           |    |    |           |    | 0  | 480   |
| 5:00 PM |            | 293 | 0  |            | 230 |    |           |    |    |           |    | 1  | 524   |
| 5:15 PM |            | 290 | 0  |            | 255 |    |           |    |    |           |    | 0  | 545   |
| 5:30 PM |            | 294 | 0  |            | 226 |    |           |    |    |           |    | 0  | 520   |
| 5:45 PM |            | 268 | 0  |            | 221 |    |           |    |    |           |    | 1  | 490   |

| TOTAL VOLUMES = | NL | NT   | NR | SL | ST   | SR | EL | ET | ER | WL | WT | WR | TOTAL |
|-----------------|----|------|----|----|------|----|----|----|----|----|----|----|-------|
|                 | 0  | 2269 | 2  | 0  | 1865 | 0  | 0  | 0  | 0  | 0  | 0  | 2  | 4138  |

PM Peak Hr Begins at: 500 PM

| PEAK VOLUMES =   | NL | NT    | NR | SL | ST    | SR | EL | ET    | ER | WL | WT    | WR | TOTAL |
|------------------|----|-------|----|----|-------|----|----|-------|----|----|-------|----|-------|
|                  | 0  | 1145  | 0  | 0  | 932   | 0  | 0  | 0     | 0  | 0  | 0     | 2  | 2079  |
| PEAK HR. FACTOR: |    | 0.974 |    |    | 0.914 |    |    | 0.000 |    |    | 0.500 |    | 0.954 |

CONTROL: [No Control](#)

# Intersection Turning Movement

Prepared by:



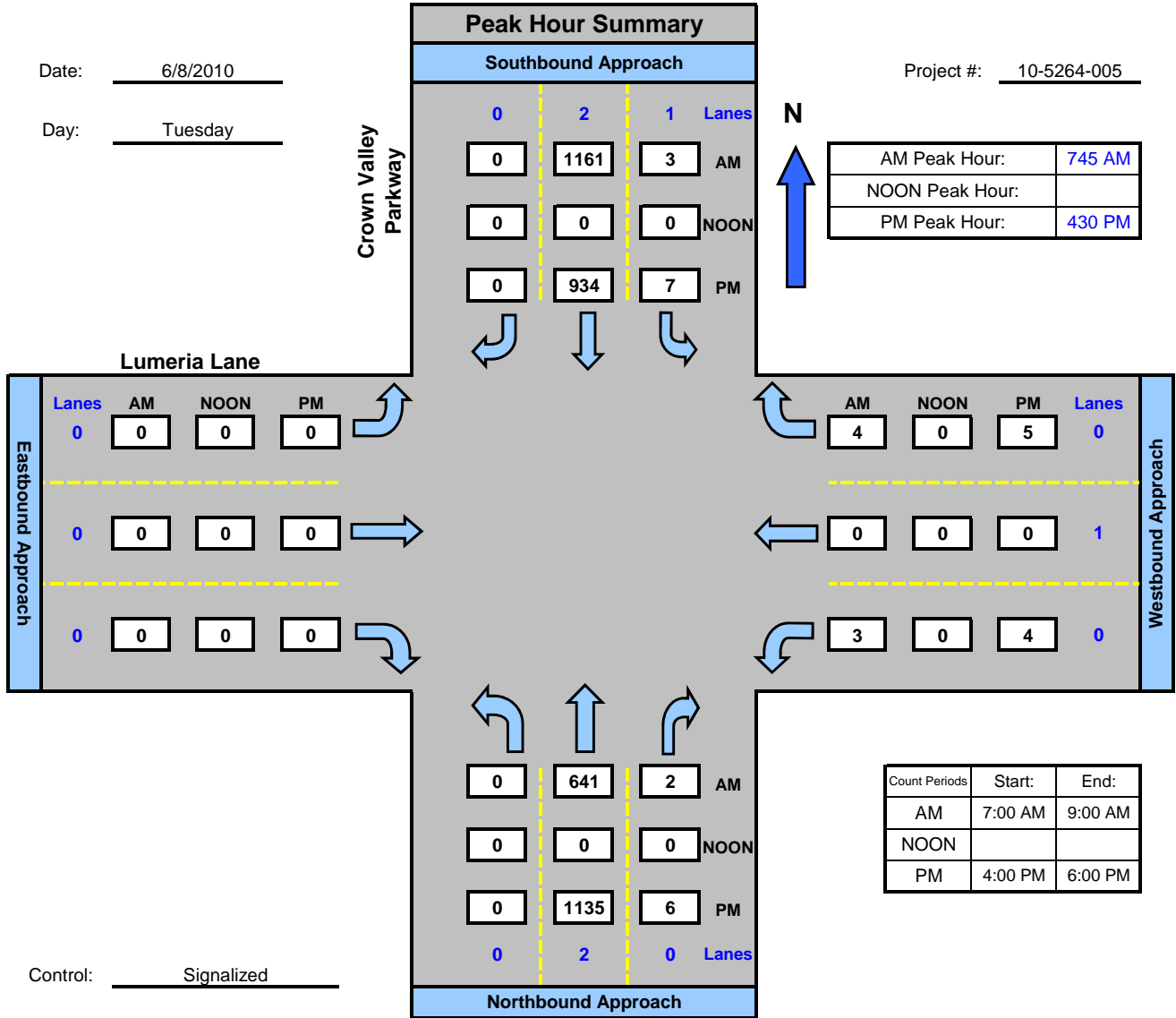
National Data & Surveying Services

## Crown Valley Parkway and Lumeria Lane , City of Dana Point

Date: 6/8/2010

Day: Tuesday

Project #: 10-5264-005





ORANGE COUNTY TRANSPORTATION AUTHORITY  
INTERSECTION LEVEL OF SERVICE

Intersection: Crown Valley Pkwy (North-South)  
and  
PCH (East-West)  
Jurisdiction: Dana Point Intersection ID: 80

| Movement                                | No. of Lanes | Capacity | Existing Volume | V/C  | Critical V/C | Sum  |
|---|--------------|----------|-----------------|------|--------------|------|
| NL                                      | 0.50         | 659      | 13              | 0.02 |              |      |
| NT                                      | 1.00         | 1422     | 28              | 0.02 |              |      |
| NR                                      | 0.50         | 1319     | 26              | 0.02 |              | 0.11 |
| SL                                      | 1.50         | 2914     | 198             | 0.07 |              |      |
| ST                                      | 0.50         | 486      | 33              | 0.07 |              |      |
| SR                                      | 2.00         | 3655     | 776             | 0.09 |              |      |
| EL                                      | 2.00         | 3400     | 421             | 0.12 |              |      |
| ET                                      | 1.50         | 3334     | 503             | 0.15 |              |      |
| ER                                      | 0.50         | 66       | 10              | 0.15 |              | 0.40 |
| WL                                      | 1.00         | 1700     | 30              | 0.02 |              |      |
| WT                                      | 2.00         | 3400     | 949             | 0.28 |              |      |
| WR                                      | 1.00         | 1955     | 193             | 0.03 |              |      |
| Sum of E-W and N-S Critical V/C         |              |          |                 |      |              | 0.51 |
| Adjustment Factor for Lost Time         |              |          |                 |      |              | 0.05 |
| Intersection Capacity Utilization (ICU) |              |          |                 |      |              | 0.56 |

Level of Service: A

Year: 2013

Peak Period: AM

Split Phase:

N/S: Y E/W: N

Free Right Turns: NB: N SB: N EB: N WB: N

Restricted Right Turns: NB: N SB: N EB: N WB: N

Right Turn Overlaps: NB: N SB: Y EB: N WB: Y

ORANGE COUNTY TRANSPORTATION AUTHORITY  
INTERSECTION LEVEL OF SERVICE

Intersection: Crown Valley Pkwy (North-South)  
and PCH (East-West)  
Jurisdiction: Dana Point Intersection ID: 80

| Movement                                | No. of Lanes | Capacity | Existing Volume | V/C  | Critical V/C | Sum  |
|---|--------------|----------|-----------------|------|--------------|------|
| NL                                      | 0.50         | 474      | 12              | 0.03 |              |      |
| NT                                      | 1.00         | 1740     | 44              | 0.03 |              |      |
| NR                                      | 0.50         | 1186     | 30              | 0.03 |              | 0.11 |
| SL                                      | 1.50         | 2866     | 215             | 0.08 |              |      |
| ST                                      | 0.50         | 534      | 40              | 0.07 |              |      |
| SR                                      | 2.00         | 3655     | 470             | 0.00 |              |      |
| EL                                      | 2.00         | 3400     | 721             | 0.21 |              |      |
| ET                                      | 1.50         | 3359     | 961             | 0.29 |              |      |
| ER                                      | 0.50         | 41       | 12              | 0.29 |              | 0.42 |
| WL                                      | 1.00         | 1700     | 30              | 0.02 |              |      |
| WT                                      | 2.00         | 3400     | 719             | 0.21 |              |      |
| WR                                      | 1.00         | 1955     | 216             | 0.03 |              |      |
| Sum of E-W and N-S Critical V/C         |              |          |                 |      |              | 0.53 |
| Adjustment Factor for Lost Time         |              |          |                 |      |              | 0.05 |
| Intersection Capacity Utilization (ICU) |              |          |                 |      |              | 0.58 |

Level of Service: A  
Year: 2013  
Peak Period: PM  
Split Phase: N/S: Y E/W: N  
Free Right Turns: NB: N SB: N EB: N WB: N  
Restricted Right Turns: NB: N SB: N EB: N WB: N  
Right Turn Overlaps: NB: N SB: Y EB: N WB: Y

# ITM Peak Hour Summary

Prepared by:



National Data & Surveying Services

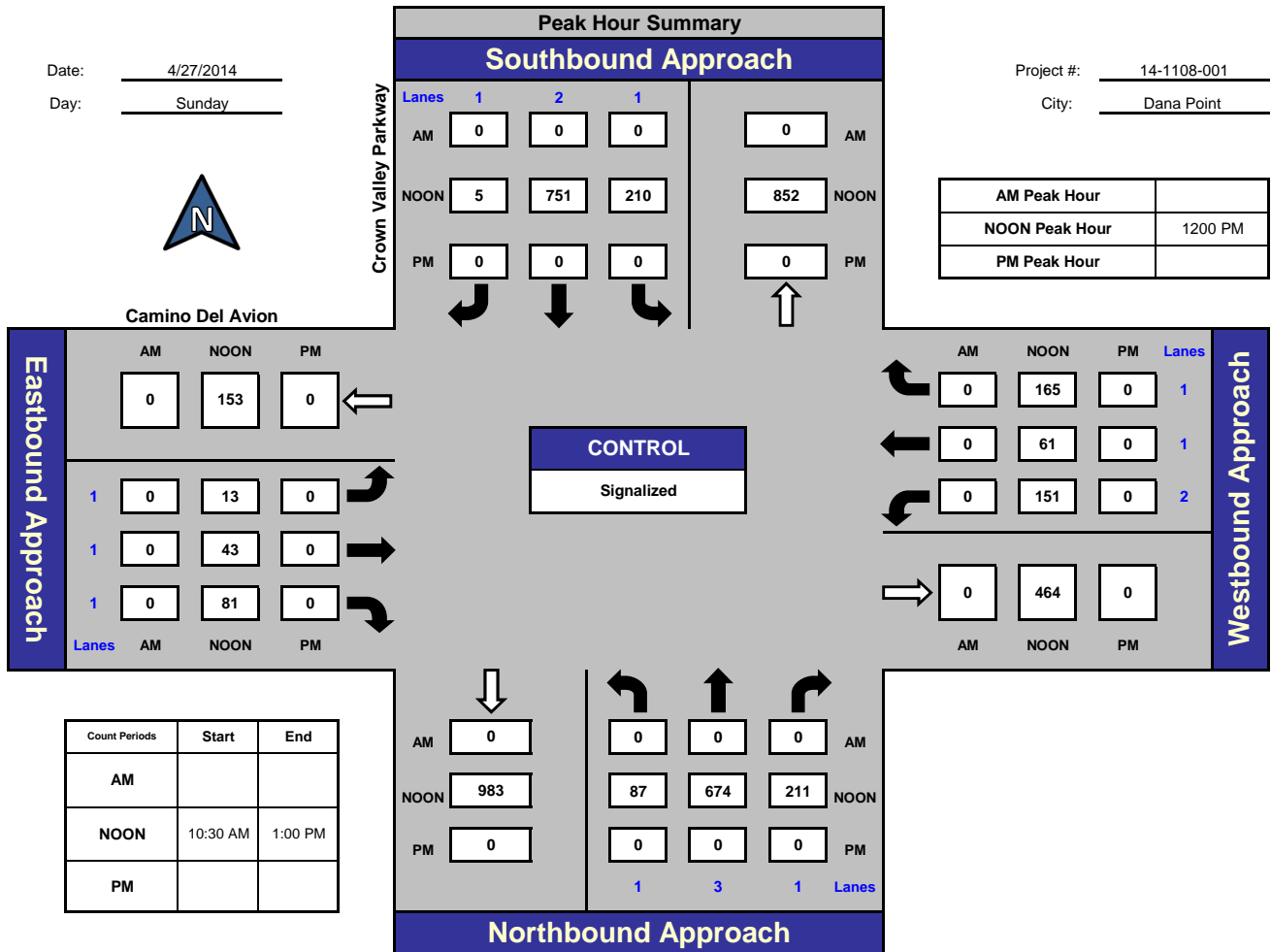
## Crown Valley Parkway and Camino Del Avion , Dana Point

Date: 4/27/2014

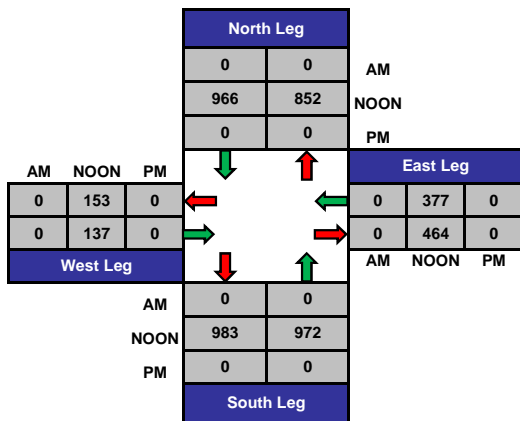
Day: Sunday

Project #: 14-1108-001

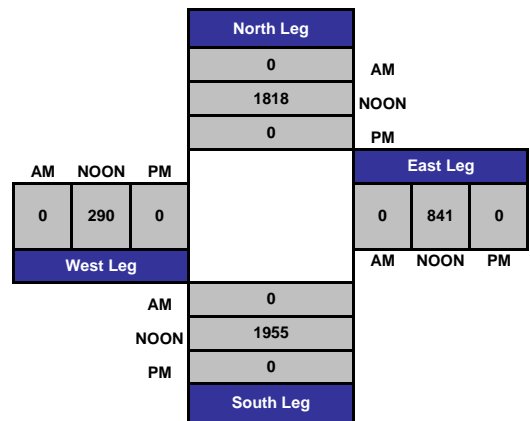
City: Dana Point



### Total Ins & Outs



### Total Volume Per Leg



# ITM Peak Hour Summary

Prepared by:



National Data & Surveying Services

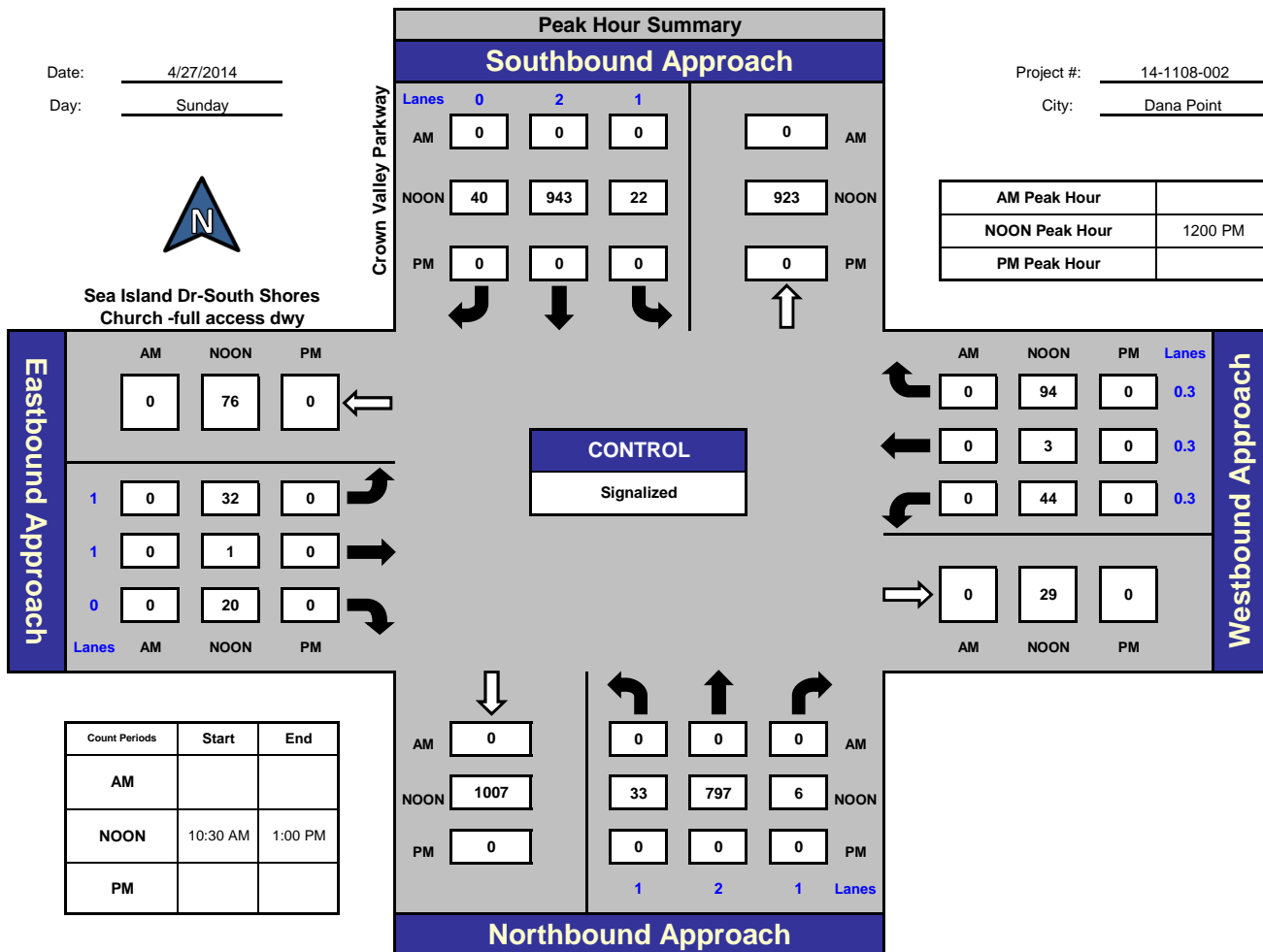
## Crown Valley Parkway and Sea Island Dr-South Shores Church -full access dwy , Dana Point

Date: 4/27/2014  
Day: Sunday

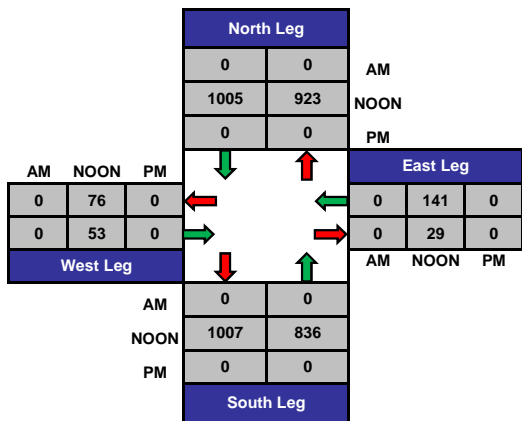
Project #: 14-1108-002  
City: Dana Point



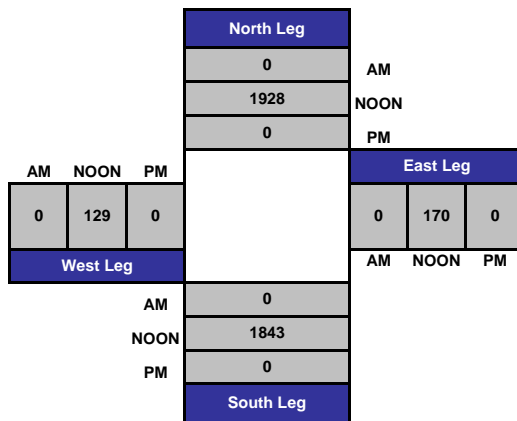
Sea Island Dr-South Shores Church -full access dwy



### Total Ins & Outs



### Total Volume Per Leg



# Intersection Turning Movement

Prepared by:

## National Data & Surveying Services

Project ID: 14-1108-002

Day: Sunday

City: Dana Point

Date: 4/27/2014

NOON

| NS/EW Streets:              | Crown Valley Parkway |        |       | Crown Valley Parkway |        |       | Sea Island Dr-South Shores Church -full access dwy |       |        | Sea Island Dr-South Shores Church -full access dwy |       |        | TOTAL        |
|-----------------------------|----------------------|--------|-------|----------------------|--------|-------|--|-------|--------|--|-------|--------|--------------|
|                             | NORTHBOUND           |        |       | SOUTHBOUND           |        |       | EASTBOUND  |       |        | WESTBOUND  |       |        |              |
| LANES:                      | NL                   | NT     | NR    | SL                   | ST     | SR    | EL   | ET    | ER     | WL   | WT    | WR     |              |
|                             | 1                    | 2      | 1     | 1                    | 2      | 0     | 1  | 1     | 0      | 0.3  | 0.3   | 0.3    |              |
| 10:30 AM                    | 19                   | 162    | 13    | 16                   | 195    | 3     | 7  | 0     | 3      | 10   | 2     | 21     | 451          |
| 10:45 AM                    | 9                    | 176    | 20    | 49                   | 198    | 4     | 12   | 2     | 4      | 9  | 1     | 15     | 499          |
| 11:00 AM                    | 11                   | 157    | 1     | 35                   | 194    | 8     | 14   | 0     | 5      | 3  | 0     | 11     | 439          |
| 11:15 AM                    | 5                    | 172    | 0     | 15                   | 193    | 5     | 10   | 0     | 5      | 0  | 0     | 4      | 409          |
| 11:30 AM                    | 4                    | 177    | 0     | 7                    | 209    | 4     | 4  | 0     | 1      | 0  | 0     | 5      | 411          |
| 11:45 AM                    | 6                    | 169    | 0     | 5                    | 230    | 7     | 4  | 0     | 6      | 2  | 1     | 1      | 431          |
| 12:00 PM                    | 7                    | 205    | 0     | 4                    | 228    | 9     | 9  | 0     | 6      | 14   | 1     | 40     | 523          |
| 12:15 PM                    | 12                   | 228    | 1     | 4                    | 209    | 7     | 4  | 0     | 3      | 19   | 0     | 21     | 508          |
| 12:30 PM                    | 6                    | 178    | 5     | 9                    | 245    | 13    | 10   | 0     | 5      | 9  | 0     | 15     | 495          |
| 12:45 PM                    | 8                    | 186    | 0     | 5                    | 261    | 11    | 9  | 1     | 6      | 2  | 2     | 18     | 509          |
| <b>TOTAL VOLUMES :</b>      | 87                   | 1810   | 40    | 149                  | 2162   | 71    | 83   | 3     | 44     | 68   | 7     | 151    | 4675         |
| <b>APPROACH %'s :</b>       | 4.49%                | 93.44% | 2.07% | 6.26%                | 90.76% | 2.98% | 63.85%   | 2.31% | 33.85% | 30.09%   | 3.10% | 66.81% |              |
| <b>PEAK HR START TIME :</b> | 1200 PM              |        |       |                      |        |       |  |       |        |  |       |        | <b>TOTAL</b> |
| <b>PEAK HR VOL :</b>        | 33                   | 797    | 6     | 22                   | 943    | 40    | 32   | 1     | 20     | 44   | 3     | 94     | 2035         |
| <b>PEAK HR FACTOR :</b>     | 0.867                |        |       | 0.907                |        |       | 0.828  |       |        | 0.641  |       |        | 0.973        |

CONTROL : Signalized



# ITM Peak Hour Summary

Prepared by:



National Data & Surveying Services

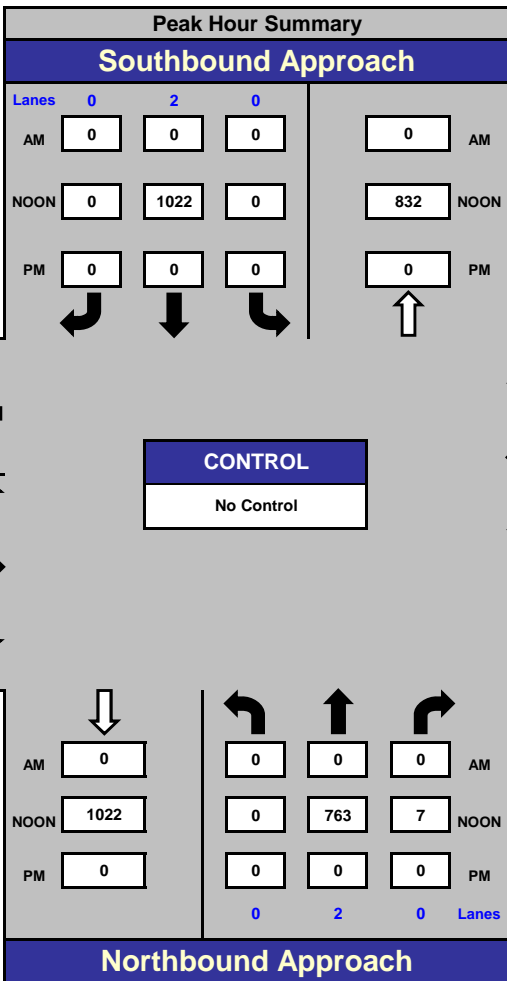
## Crown Valley Pkwy and South Shores Church right in-right-out dwy , Dana Point

Date: 4/27/2014  
Day: Sunday

Project #: 14-1108-003  
City: Dana Point



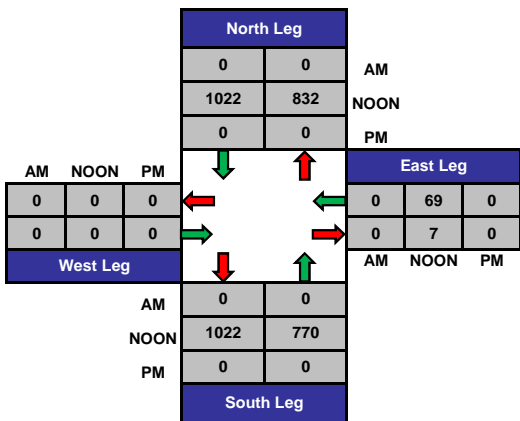
South Shores Church right in-right-out dwy



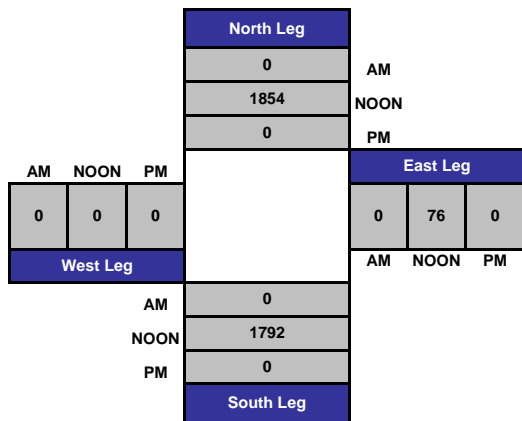
|                |         |
|----------------|---------|
| AM Peak Hour   |         |
| NOON Peak Hour | 1200 PM |
| PM Peak Hour   |         |

| Count Periods | Start    | End     |
|---------------|----------|---------|
| AM            |          |         |
| NOON          | 10:30 AM | 1:00 PM |
| PM            |          |         |

### Total Ins & Outs



### Total Volume Per Leg



# Intersection Turning Movement

Prepared by:

## National Data & Surveying Services

Project ID: 14-1108-003

Day: Sunday

City: Dana Point

Date: 4/27/2014

NOON

| NS/EW Streets:              | Crown Valley Pkwy |        |       | Crown Valley Pkwy |         |       | South Shores Church right in-right-out dwy |         |         | South Shores Church right in-right-out dwy |       |         | TOTAL        |
|-----------------------------|-------------------|--------|-------|-------------------|---------|-------|--|---------|---------|--|-------|---------|--------------|
|                             | NORTHBOUND        |        |       | SOUTHBOUND        |         |       | EASTBOUND                                  |         |         | WESTBOUND                                  |       |         |              |
| LANES:                      | NL                | NT     | NR    | SL                | ST      | SR    | EL   | ET      | ER      | WL   | WT    | WR      |              |
|                             | 0                 | 2      | 0     | 0                 | 2       | 0     | 0  | 0       | 0       | 0  | 0     | 1       |              |
| 10:30 AM                    |                   | 156    | 0     |                   | 225     |       |  |         |         |  |       | 29      | 410          |
| 10:45 AM                    |                   | 203    | 0     |                   | 212     |       |  |         |         |  |       | 14      | 429          |
| 11:00 AM                    |                   | 151    | 6     |                   | 206     |       |  |         |         |  |       | 9       | 372          |
| 11:15 AM                    |                   | 182    | 2     |                   | 202     |       |  |         |         |  |       | 5       | 391          |
| 11:30 AM                    |                   | 167    | 3     |                   | 201     |       |  |         |         |  |       | 2       | 373          |
| 11:45 AM                    |                   | 184    | 2     |                   | 251     |       |  |         |         |  |       | 2       | 439          |
| 12:00 PM                    |                   | 181    | 2     |                   | 250     |       |  |         |         |  |       | 36      | 469          |
| 12:15 PM                    |                   | 212    | 2     |                   | 240     |       |  |         |         |  |       | 24      | 478          |
| 12:30 PM                    |                   | 177    | 2     |                   | 265     |       |  |         |         |  |       | 5       | 449          |
| 12:45 PM                    |                   | 193    | 1     |                   | 267     |       |  |         |         |  |       | 4       | 465          |
| <b>TOTAL VOLUMES :</b>      | 0                 | 1806   | 20    | 0                 | 2319    | 0     | 0  | 0       | 0       | 0  | 0     | 130     | 4275         |
| <b>APPROACH %'s :</b>       | 0.00%             | 98.90% | 1.10% | 0.00%             | 100.00% | 0.00% | #DIV/0!                                    | #DIV/0! | #DIV/0! | 0.00%                                      | 0.00% | 100.00% |              |
| <b>PEAK HR START TIME :</b> | 1200 PM           |        |       |                   |         |       |  |         |         |  |       |         | <b>TOTAL</b> |
| <b>PEAK HR VOL :</b>        | 0                 | 763    | 7     | 0                 | 1022    | 0     | 0  | 0       | 0       | 0  | 0     | 69      | 1861         |
| <b>PEAK HR FACTOR :</b>     |                   | 0.900  |       |                   | 0.957   |       | 0.000                                      |         |         | 0.479                                      |       |         | 0.973        |

CONTROL : No Control

# ITM Peak Hour Summary

Prepared by:



National Data & Surveying Services

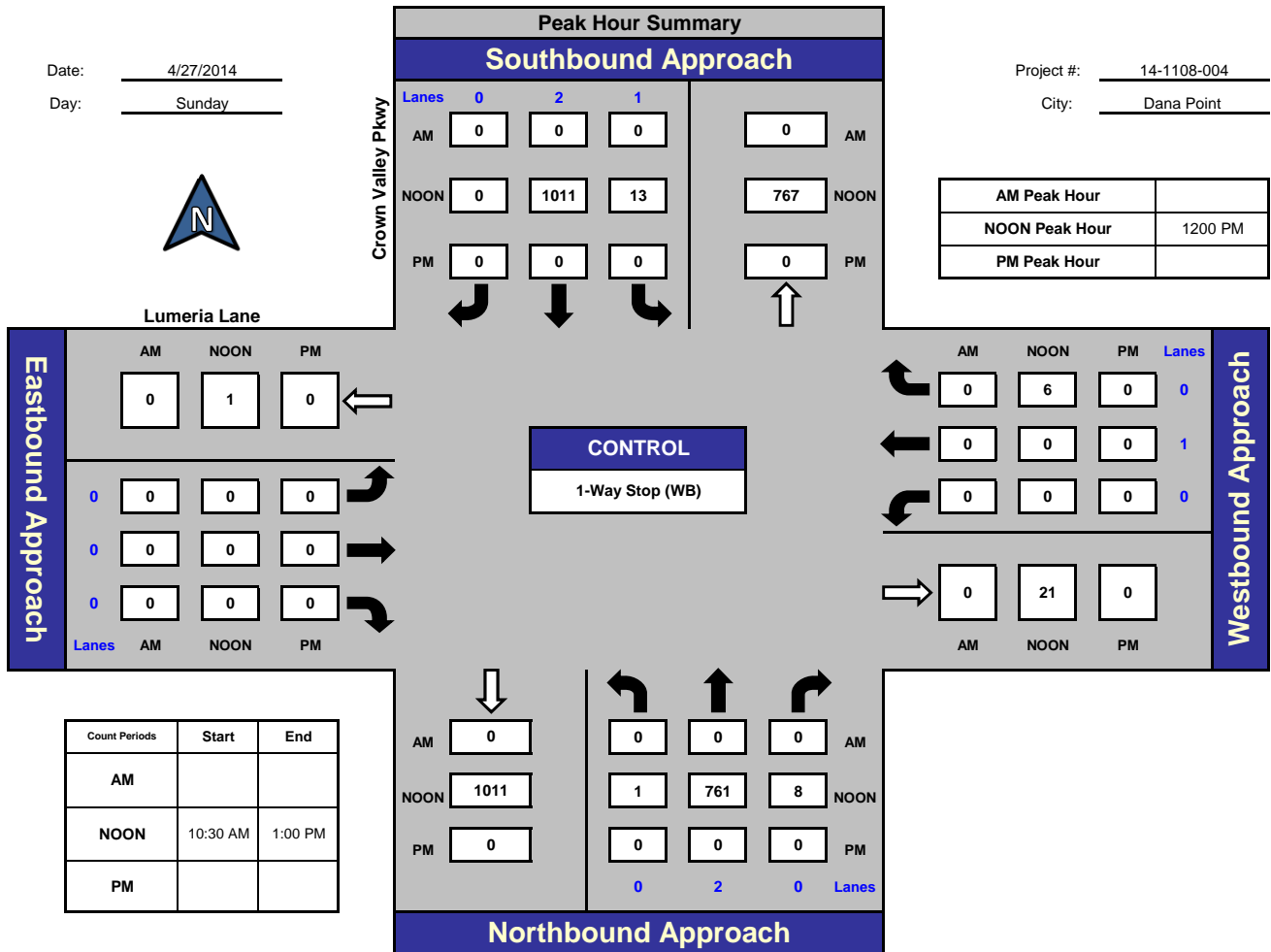
## Crown Valley Pkwy and Lumeria Lane, Dana Point

Date: 4/27/2014

Day: Sunday

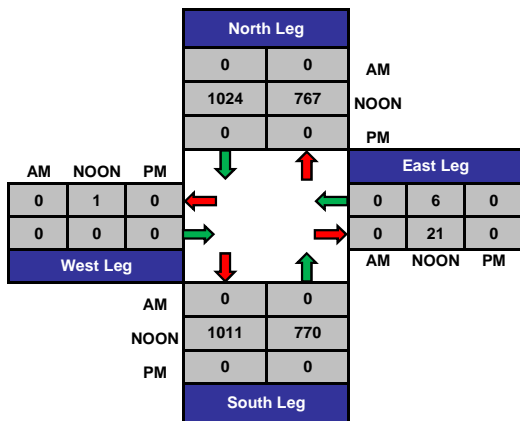
Project #: 14-1108-004

City: Dana Point

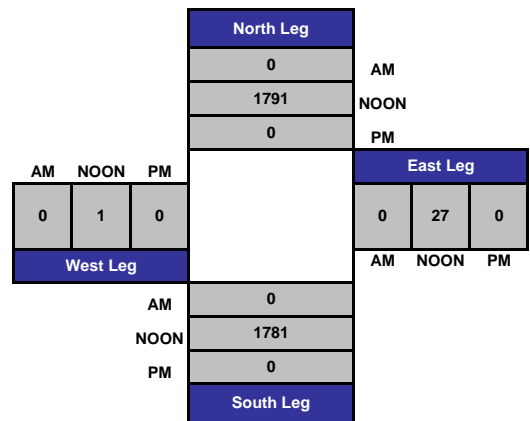


| Count Periods | Start    | End     |
|---------------|----------|---------|
| AM            |          |         |
| NOON          | 10:30 AM | 1:00 PM |
| PM            |          |         |

### Total Ins & Outs



### Total Volume Per Leg



# ITM Peak Hour Summary

Prepared by:



National Data & Surveying Services

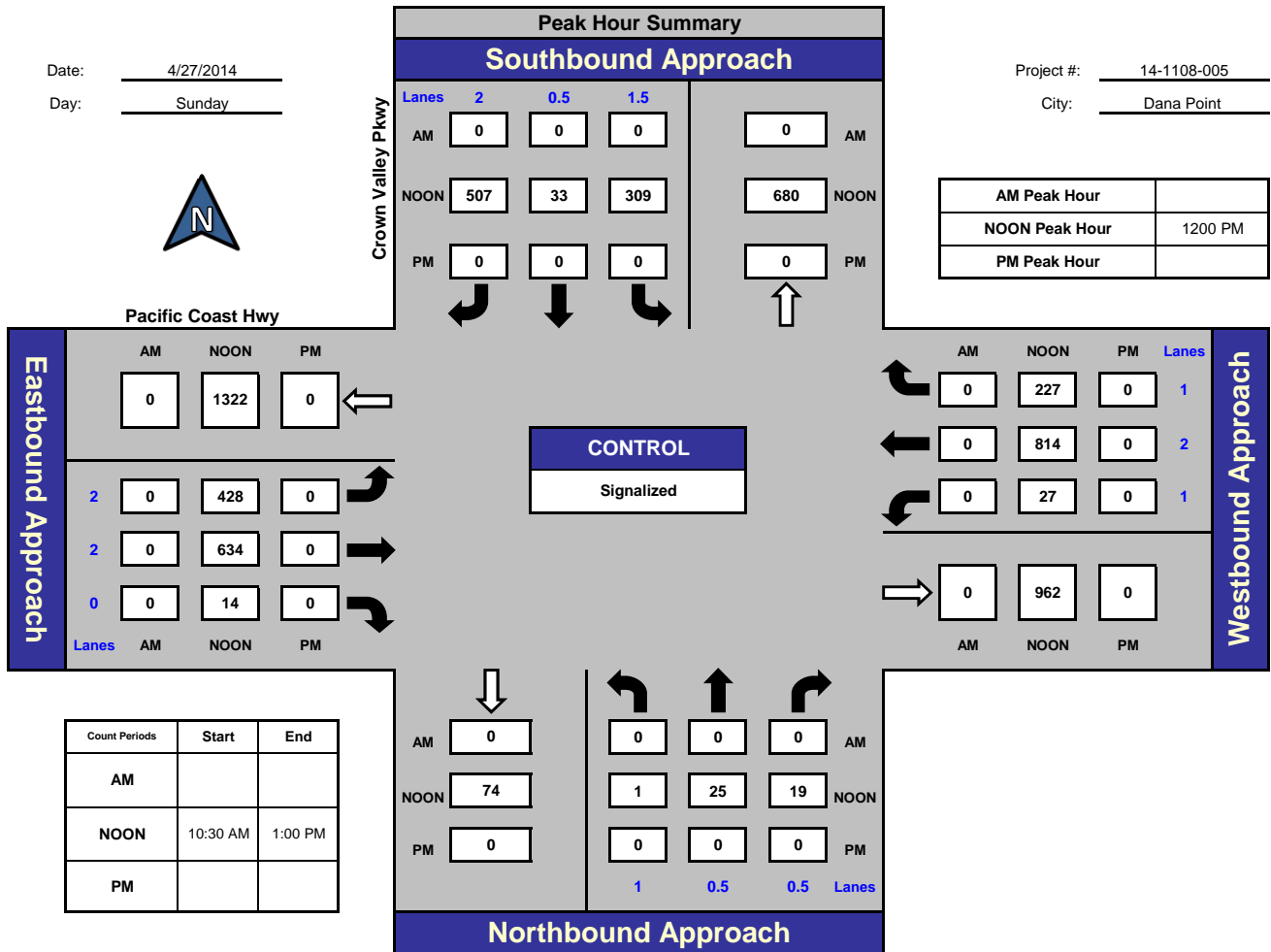
## Crown Valley Pkwy and Pacific Coast Hwy, Dana Point

Date: 4/27/2014

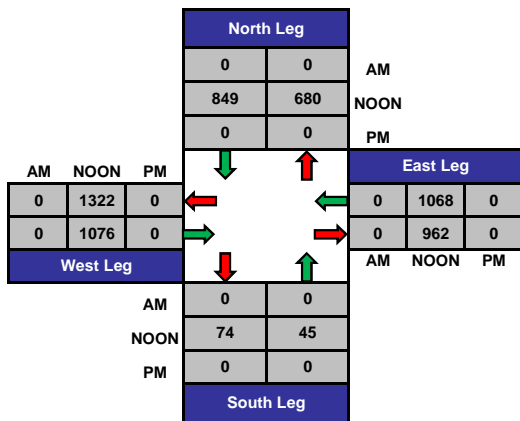
Day: Sunday

Project #: 14-1108-005

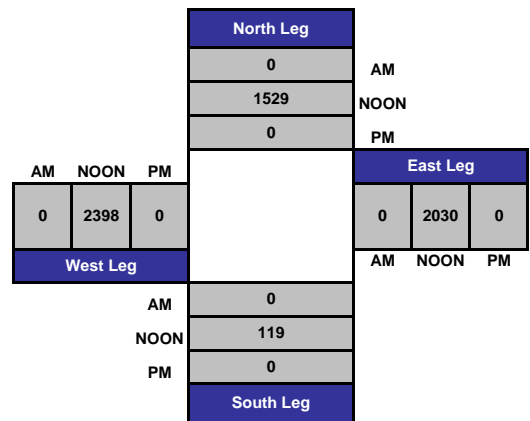
City: Dana Point



### Total Ins & Outs



### Total Volume Per Leg



## South Shores Church Parking Study


Project # 14-1109

Location: 32712 Crown Valley Pkwy

City: Dana Point

Day: Sunday

Date: 4/27/2014


| TIME<br><br>Spaces | ZONE 1        |   |               |                            |         | ZONE 2         |         | ZONE 3            | ZONE 4            | TOTAL |
|--------------------|---------------|---|---------------|----------------------------|---------|----------------|---------|-------------------|-------------------|-------|
|                    | Regular<br>76 | <br>10 | Reserved<br>2 | First Time<br>Visitor<br>2 | Illegal | Regular<br>137 | Illegal | EASTSIDE          | WESTSIDE          |       |
|                    |               |   |               |                            |         |                |         | Crown Valley Pkwy | Crown Valley Pkwy |       |
| 8:00 AM            | 25            | 5   | 0             | 0                          | 0       | 9              | 0       | 1                 | 8                 | 48    |
| 8:15 AM            | 36            | 6   | 0             | 0                          | 0       | 39             | 0       | 1                 | 12                | 94    |
| 8:30 AM            | 40            | 6   | 0             | 0                          | 0       | 40             | 0       | 2                 | 12                | 100   |
| 8:45 AM            | 44            | 6   | 0             | 0                          | 0       | 45             | 0       | 2                 | 12                | 109   |
| 9:00 AM            | 57            | 9   | 0             | 1                          | 0       | 59             | 0       | 5                 | 12                | 143   |
| 9:15 AM            | 76            | 10  | 2             | 2                          | 0       | 118            | 0       | 5                 | 11                | 224   |
| 9:30 AM            | 76            | 10  | 2             | 2                          | 0       | 137            | 0       | 7                 | 15                | 249   |
| 9:45 AM            | 76            | 10  | 2             | 2                          | 0       | 137            | 0       | 11                | 14                | 252   |
| 10:00 AM           | 76            | 10  | 2             | 2                          | 0       | 137            | 0       | 12                | 14                | 253   |
| 10:15 AM           | 76            | 10  | 2             | 2                          | 0       | 137            | 0       | 12                | 15                | 254   |
| 10:30 AM           | 75            | 8   | 2             | 2                          | 0       | 121            | 0       | 12                | 16                | 236   |
| 10:45 AM           | 68            | 6   | 2             | 1                          | 0       | 99             | 0       | 9                 | 10                | 195   |
| 11:00 AM           | 74            | 7   | 2             | 2                          | 0       | 124            | 0       | 7                 | 9                 | 225   |
| 11:15 AM           | 76            | 10  | 2             | 2                          | 0       | 137            | 0       | 9                 | 14                | 250   |
| 11:30 AM           | 76            | 10  | 2             | 2                          | 0       | 137            | 0       | 12                | 14                | 253   |
| 11:45 AM           | 76            | 10  | 2             | 2                          | 0       | 137            | 0       | 13                | 14                | 254   |
| 12:00 PM           | 76            | 10  | 2             | 2                          | 0       | 137            | 0       | 14                | 13                | 254   |
| 12:15 PM           | 46            | 4   | 2             | 1                          | 0       | 86             | 0       | 10                | 9                 | 158   |
| 12:30 PM           | 33            | 4   | 1             | 0                          | 0       | 42             | 0       | 7                 | 8                 | 95    |
| 12:45 PM           | 24            | 2   | 2             | 0                          | 0       | 30             | 0       | 6                 | 5                 | 69    |
| 1:00 PM            | 16            | 0   | 2             | 0                          | 0       | 19             | 0       | 4                 | 2                 | 43    |

From 10:15 to 10:30 a.m., there were 379 people in attendance. With 254 parked vehicles, the average vehicle occupancy is approximately 1.49 people per vehicle.  
 From 11:45 a.m. to 12:15 p.m., there were 401 people in attendance. With 254 parked vehicles, the average vehicle occupancy is approximately 1.58 people per vehicle.

## South Shores Church Parking Study

Project # 14-1109  
Location: 32712 Crown Valley Pkwy  
City: Dana Point

Day: Wednesday  
Date: 4/30/2014

| TIME     | ZONE 1  |   |          |                    |         | ZONE 2  |         | TOTAL |
|----------|---------|---|----------|--------------------|---------|---------|---------|-------|
|          | Regular |  | Reserved | First Time Visitor | Illegal | Regular | Illegal |       |
| Spaces   | 76      | 10  | 2        | 2                  |         | 137     |         | 227   |
| 8:00 AM  | 3       | 0   | 0        | 0                  | 0       | 3       | 0       | 6     |
| 8:15 AM  | 7       | 0   | 0        | 0                  | 0       | 7       | 0       | 14    |
| 8:30 AM  | 9       | 0   | 0        | 0                  | 0       | 18      | 0       | 27    |
| 8:45 AM  | 12      | 0   | 0        | 0                  | 0       | 33      | 0       | 45    |
| 9:00 AM  | 32      | 0   | 0        | 0                  | 0       | 64      | 0       | 96    |
| 9:15 AM  | 37      | 0   | 0        | 1                  | 0       | 118     | 0       | 156   |
| 9:30 AM  | 46      | 4   | 0        | 0                  | 0       | 137     | 1       | 188   |
| 9:45 AM  | 48      | 5   | 0        | 1                  | 0       | 137     | 2       | 193   |
| 10:00 AM | 49      | 4   | 0        | 0                  | 0       | 137     | 2       | 192   |
| 10:15 AM | 49      | 0   | 0        | 0                  | 0       | 137     | 2       | 188   |
| 10:30 AM | 50      | 0   | 0        | 0                  | 0       | 135     | 2       | 187   |
| 10:45 AM | 51      | 4   | 1        | 0                  | 0       | 129     | 2       | 187   |
| 11:00 AM | 51      | 3   | 1        | 0                  | 0       | 128     | 2       | 185   |
| 11:15 AM | 43      | 0   | 1        | 0                  | 0       | 70      | 2       | 116   |
| 11:30 AM | 41      | 1   | 1        | 1                  | 0       | 38      | 2       | 84    |
| 11:45 AM | 28      | 0   | 1        | 0                  | 0       | 28      | 3       | 60    |
| 12:00 PM | 19      | 0   | 1        | 0                  | 0       | 22      | 3       | 45    |
| 12:15 PM | 19      | 0   | 0        | 0                  | 0       | 15      | 3       | 37    |
| 12:30 PM | 17      | 0   | 0        | 0                  | 0       | 12      | 3       | 32    |
| 12:45 PM | 16      | 0   | 0        | 0                  | 0       | 9       | 3       | 28    |
| 1:00 PM  | 15      | 0   | 1        | 1                  | 0       | 6       | 3       | 26    |
| 1:15 PM  | 16      | 0   | 1        | 1                  | 0       | 5       | 3       | 26    |
| 1:30 PM  | 23      | 0   | 1        | 1                  | 0       | 3       | 3       | 31    |
| 1:45 PM  | 25      | 0   | 1        | 1                  | 0       | 3       | 3       | 33    |
| 2:00 PM  | 22      | 0   | 1        | 1                  | 0       | 3       | 3       | 30    |
| 2:15 PM  | 19      | 0   | 1        | 1                  | 0       | 3       | 2       | 26    |
| 2:30 PM  | 15      | 0   | 1        | 0                  | 0       | 2       | 2       | 20    |
| 2:45 PM  | 14      | 0   | 0        | 0                  | 0       | 2       | 2       | 18    |
| 3:00 PM  | 12      | 0   | 0        | 1                  | 0       | 2       | 1       | 16    |
| 3:15 PM  | 13      | 0   | 0        | 1                  | 0       | 2       | 1       | 17    |
| 3:30 PM  | 13      | 0   | 0        | 0                  | 0       | 2       | 1       | 16    |
| 3:45 PM  | 13      | 0   | 0        | 0                  | 0       | 2       | 1       | 16    |
| 4:00 PM  | 12      | 0   | 0        | 0                  | 0       | 2       | 1       | 15    |
| 4:15 PM  | 12      | 0   | 0        | 0                  | 0       | 2       | 1       | 15    |
| 4:30 PM  | 10      | 0   | 0        | 0                  | 0       | 2       | 1       | 13    |
| 4:45 PM  | 11      | 0   | 0        | 0                  | 0       | 2       | 1       | 14    |
| 5:00 PM  | 10      | 0   | 0        | 0                  | 0       | 1       | 1       | 12    |
| 5:15 PM  | 9       | 0   | 0        | 0                  | 0       | 1       | 1       | 11    |
| 5:30 PM  | 12      | 0   | 0        | 0                  | 0       | 1       | 0       | 13    |
| 5:45 PM  | 11      | 0   | 0        | 0                  | 0       | 1       | 0       | 12    |
| 6:00 PM  | 14      | 0   | 0        | 0                  | 0       | 1       | 0       | 15    |
| 6:15 PM  | 17      | 0   | 0        | 1                  | 0       | 1       | 0       | 19    |
| 6:30 PM  | 28      | 3   | 1        | 1                  | 0       | 5       | 0       | 38    |
| 6:45 PM  | 39      | 2   | 1        | 1                  | 0       | 15      | 0       | 58    |
| 7:00 PM  | 49      | 3   | 1        | 2                  | 0       | 22      | 0       | 77    |
| 7:15 PM  | 49      | 3   | 1        | 2                  | 0       | 23      | 0       | 78    |
| 7:30 PM  | 50      | 3   | 1        | 2                  | 0       | 23      | 0       | 79    |
| 7:45 PM  | 51      | 3   | 1        | 2                  | 0       | 23      | 0       | 80    |
| 8:00 PM  | 47      | 3   | 1        | 2                  | 0       | 22      | 0       | 75    |
| 8:15 PM  | 46      | 3   | 0        | 2                  | 0       | 19      | 0       | 70    |
| 8:30 PM  | 32      | 1   | 0        | 0                  | 0       | 10      | 0       | 43    |
| 8:45 PM  | 16      | 0   | 0        | 0                  | 0       | 3       | 0       | 19    |
| 9:00 PM  | 10      | 0   | 0        | 0                  | 0       | 1       | 0       | 11    |
| 9:15 PM  | 2       | 0   | 0        | 0                  | 0       | 1       | 0       | 3     |
| 9:30 PM  | 2       | 0   | 0        | 0                  | 0       | 1       | 0       | 3     |
| 9:45 PM  | 0       | 0   | 0        | 0                  | 0       | 1       | 0       | 1     |
| 10:00 PM | 0       | 0   | 0        | 0                  | 0       | 1       | 0       | 1     |

From 9:45 to 10:00 a.m., there were 225 people in attendance.  
With 193 parked vehicles, the average vehicle occupancy is approximately 1.17 people per vehicle.



## **APPENDIX B**

### **EXISTING AND EXISTING PLUS PROJECT LEVEL OF SERVICE WORKSHEETS**

Level Of Service Computation Report  
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #1 Crown Valley Pkwy/Camino Del Avion  
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.442  
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx  
Optimal Cycle: 21 Level Of Service: A  
\*\*\*\*\*

Street Name: Crown Valley Pkwy Camino Del Avion  
Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R  
Control: Protected Protected Protected Protected  
Rights: Include Include Include Include  
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0  
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0  
Lanes: 1 0 3 0 1 1 0 2 0 1 1 0 1 0 1 2 0 1 0 1

Volume Module:  
Base Vol: 47 615 102 129 792 14 4 36 94 260 56 203  
Growth 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  
Initial Bse: 47 615 102 129 792 14 4 36 94 260 56 203  
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0  
Initial Fut: 47 615 102 129 792 14 4 36 94 260 56 203  
User 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  
PHF 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  
PHF Volume: 47 615 102 129 792 14 4 36 94 260 56 203  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 47 615 102 129 792 14 4 36 94 260 56 203  
PCE 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  
MLF 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  
FinalVolume: 47 615 102 129 792 14 4 36 94 260 56 203

Saturation Flow Module:  
Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700  
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Lanes: 1.00 3.00 1.00 1.00 2.00 1.00 1.00 1.00 1.00 2.00 1.00 1.00  
Final Sat.: 1700 5100 1700 1700 3400 1700 1700 1700 1700 3400 1700 1700

Capacity Analysis Module:  
Vol/Sat: 0.03 0.12 0.06 0.08 0.23 0.01 0.00 0.02 0.06 0.08 0.03 0.12  
Crit Moves: \*\*\*\*

\*\*\*\*\*

Level Of Service Computation Report  
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #2 Crown Valley Pkwy/Sea Island Dr-Church Dwy  
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.407  
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx  
Optimal Cycle: 20 Level Of Service: A  
\*\*\*\*\*

Street Name: Crown Valley Pkwy Sea Island Dr-Church Dwy  
Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R  
Control: Protected Protected Permitted Permitted  
Rights: Include Include Include Include  
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0  
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0  
Lanes: 1 0 2 0 1 1 0 2 0 1 1 0 0 1 0 0 0 1 0 0

Volume Module:  
Base Vol: 18 706 3 48 1072 43 44 3 30 3 1 5  
Growth 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  
Initial Bse: 18 706 3 48 1072 43 44 3 30 3 1 5  
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0  
Initial Fut: 18 706 3 48 1072 43 44 3 30 3 1 5  
User 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  
PHF 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  
PHF Volume: 18 706 3 48 1072 43 44 3 30 3 1 5  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 18 706 3 48 1072 43 44 3 30 3 1 5  
PCE 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  
MLF 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  
FinalVolume: 18 706 3 48 1072 43 44 3 30 3 1 5

Saturation Flow Module:  
Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700  
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 1.00 0.09 0.91 0.33 0.11 0.56  
Final Sat.: 1700 3400 1700 1700 3400 1700 1700 155 1545 567 189 944

Capacity Analysis Module:  
Vol/Sat: 0.01 0.21 0.00 0.03 0.32 0.03 0.03 0.02 0.02 0.00 0.01 0.01  
Crit Moves: \*\*\*\*

\*\*\*\*\*

Level of Service Computation Report  
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #3 Crown Valley Pkwy/Church Dwy

Average Delay (sec/veh): 0.0 Worst Case Level of Service: A[ 0.0]

Table with columns: Street Name, Approach, Movement, Control, Rights, Lanes. Rows for North Bound, South Bound, East Bound, West Bound.

Table with columns: Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, FinalVolume.

Table with columns: Critical Gap Module, Critical Gp, FollowUpTim.

Table with columns: Capacity Module, Cnflct Vol, Potent Cap., Move Cap., Volume/Cap.

Table with columns: Level of Service Module, 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

Note: Queue reported is the number of cars per lane.

Level of Service Computation Report  
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #4 Crown Valley Pkwy/Lumeria Ln

Average Delay (sec/veh): 0.1 Worst Case Level of Service: C[ 18.3]

Table with columns: Street Name, Approach, Movement, Control, Rights, Lanes. Rows for North Bound, South Bound, East Bound, West Bound.

Table with columns: Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, FinalVolume.

Table with columns: Critical Gap Module, Critical Gp, FollowUpTim.

Table with columns: Capacity Module, Cnflct Vol, Potent Cap., Move Cap., Volume/Cap.

Table with columns: Level of Service Module, 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*
Intersection #5 Crown Valley Pkwy/Pacific Coast Hwy
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.577
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 27 Level Of Service: A
\*\*\*\*\*

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, Y+R, Lanes. Rows include Crown Valley Pkwy and Pacific Coast Hwy with North, South, East, and West bounds.

Volume Module: Table showing Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume, OvlAdjVol for various approaches.

Saturation Flow Module: Table showing Sat/Lane, Adjustment, Lanes, Final Sat. for various approaches.

Capacity Analysis Module: Table showing Vol/Sat, OvlAdjV/S, Crit Moves for various approaches.

Level Of Service Computation Report  
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #1 Crown Valley Pkwy/Camino Del Avion  
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.486  
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx  
Optimal Cycle: 23 Level Of Service: A  
\*\*\*\*\*

Street Name: Crown Valley Pkwy Camino Del Avion  
Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R  
Control: Protected Protected Protected Protected  
Rights: Include Include Include Include  
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0  
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0  
Lanes: 1 0 3 0 1 1 0 2 0 1 1 0 1 0 1 2 0 1 0 1

Volume Module:  
Base Vol: 62 818 206 301 790 9 13 72 98 140 83 133  
Growth 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  
Initial Bse: 62 818 206 301 790 9 13 72 98 140 83 133  
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0  
Initial Fut: 62 818 206 301 790 9 13 72 98 140 83 133  
User 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  
PHF 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  
PHF Volume: 62 818 206 301 790 9 13 72 98 140 83 133  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 62 818 206 301 790 9 13 72 98 140 83 133  
PCE 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  
MLF 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  
FinalVolume: 62 818 206 301 790 9 13 72 98 140 83 133

Saturation Flow Module:  
Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700  
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Lanes: 1.00 3.00 1.00 1.00 2.00 1.00 1.00 1.00 1.00 2.00 1.00 1.00  
Final Sat.: 1700 5100 1700 1700 3400 1700 1700 1700 1700 3400 1700 1700

Capacity Analysis Module:  
Vol/Sat: 0.04 0.16 0.12 0.18 0.23 0.01 0.01 0.04 0.06 0.04 0.05 0.08  
Crit Moves: \*\*\*\* \*\*

\*\*\*\*\*

Level Of Service Computation Report  
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #2 Crown Valley Pkwy/Sea Island Dr-Church Dwy  
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.390  
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx  
Optimal Cycle: 20 Level Of Service: A  
\*\*\*\*\*

Street Name: Crown Valley Pkwy Sea Island Dr-Church Dwy  
Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R  
Control: Protected Protected Permitted Permitted  
Rights: Include Include Include Include  
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0  
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0  
Lanes: 1 0 2 0 1 1 0 2 0 1 1 0 0 1 0 0 0 0 1 0 0

Volume Module:  
Base Vol: 26 1015 2 16 993 47 42 0 27 8 0 6  
Growth 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  
Initial Bse: 26 1015 2 16 993 47 42 0 27 8 0 6  
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0  
Initial Fut: 26 1015 2 16 993 47 42 0 27 8 0 6  
User 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  
PHF 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  
PHF Volume: 26 1015 2 16 993 47 42 0 27 8 0 6  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 26 1015 2 16 993 47 42 0 27 8 0 6  
PCE 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  
MLF 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  
FinalVolume: 26 1015 2 16 993 47 42 0 27 8 0 6

Saturation Flow Module:  
Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700  
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 1.00 0.00 1.00 0.57 0.00 0.43  
Final Sat.: 1700 3400 1700 1700 3400 1700 1700 0 1700 971 0 729

Capacity Analysis Module:  
Vol/Sat: 0.02 0.30 0.00 0.01 0.29 0.03 0.02 0.00 0.02 0.00 0.00 0.01  
Crit Moves: \*\*\*\* \*\*

\*\*\*\*\*

Level of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #3 Crown Valley Pkwy/Church Dwy

Average Delay (sec/veh): 0.0 Worst Case Level of Service: B[ 12.2]

Table with columns for Street Name, Approach, Movement, Control, Rights, Lanes, Volume Module, Critical Gap Module, Capacity Module, and Level of Service Module.

Table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, FinalVolume.

Table with columns for Critical Gap Module, FollowUpTim.

Table with columns for Capacity Module, Cnflict Vol, Potent Cap., Move Cap., Volume/Cap.

Table with columns for Level of Service Module, 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

Note: Queue reported is the number of cars per lane.

Level of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #4 Crown Valley Pkwy/Lumeria Ln

Average Delay (sec/veh): 0.1 Worst Case Level of Service: D[ 25.7]

Table with columns for Street Name, Approach, Movement, Control, Rights, Lanes, Volume Module, Critical Gap Module, Capacity Module, and Level of Service Module.

Table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, FinalVolume.

Table with columns for Critical Gap Module, FollowUpTim.

Table with columns for Capacity Module, Cnflict Vol, Potent Cap., Move Cap., Volume/Cap.

Table with columns for Level of Service Module, 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 Crown Valley Pkwy/Pacific Coast Hwy

Cycle (sec): 100 Critical Vol./Cap.(X): 0.574
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 27 Level Of Service: A

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, Y+R, Lanes. Rows include Crown Valley Pkwy and Pacific Coast Hwy with North, South, East, and West bounds.

Volume Module table showing Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume, OvlAdjVol.

Saturation Flow Module table showing Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table showing Vol/Sat, OvlAdjV/S, Crit Moves.



Level Of Service Computation Report  
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #1 Crown Valley Pkwy/Camino Del Avion  
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.427  
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx  
Optimal Cycle: 21 Level Of Service: A  
\*\*\*\*\*

Street Name: Crown Valley Pkwy Camino Del Avion  
Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R  
Control: Protected Protected Protected Protected  
Rights: Include Include Include Include  
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0  
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0  
Lanes: 1 0 3 0 1 1 0 2 0 1 1 0 1 0 1

Volume Module:  
Base Vol: 87 674 211 210 751 5 13 43 81 151 61 165  
Growth 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  
Initial Bse: 87 674 211 210 751 5 13 43 81 151 61 165  
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0  
Initial Fut: 87 674 211 210 751 5 13 43 81 151 61 165  
User 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  
PHF 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  
PHF Volume: 87 674 211 210 751 5 13 43 81 151 61 165  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 87 674 211 210 751 5 13 43 81 151 61 165  
PCE 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  
MLF 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  
FinalVolume: 87 674 211 210 751 5 13 43 81 151 61 165

Saturation Flow Module:  
Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700  
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Lanes: 1.00 3.00 1.00 1.00 2.00 1.00 1.00 1.00 1.00 2.00 1.00 1.00  
Final Sat.: 1700 5100 1700 1700 3400 1700 1700 1700 1700 3400 1700 1700

Capacity Analysis Module:  
Vol/Sat: 0.05 0.13 0.12 0.12 0.22 0.00 0.01 0.03 0.05 0.04 0.04 0.10  
Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\* \*\*\*\*

\*\*\*\*\*

Level Of Service Computation Report  
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #2 Crown Valley Pkwy/Sea Island Dr-Church Dwy  
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.449  
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx  
Optimal Cycle: 22 Level Of Service: A  
\*\*\*\*\*

Street Name: Crown Valley Pkwy Sea Island Dr-Church Dwy  
Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R  
Control: Protected Protected Permitted Permitted  
Rights: Include Include Include Include  
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0  
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0  
Lanes: 1 0 2 0 1 1 0 2 0 1 1 0 0 1 0 0 0

Volume Module:  
Base Vol: 33 797 6 22 943 40 32 1 20 44 3 94  
Growth 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  
Initial Bse: 33 797 6 22 943 40 32 1 20 44 3 94  
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0  
Initial Fut: 33 797 6 22 943 40 32 1 20 44 3 94  
User 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  
PHF 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  
PHF Volume: 33 797 6 22 943 40 32 1 20 44 3 94  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 33 797 6 22 943 40 32 1 20 44 3 94  
PCE 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  
MLF 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  
FinalVolume: 33 797 6 22 943 40 32 1 20 44 3 94

Saturation Flow Module:  
Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700  
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 1.00 0.05 0.95 0.31 0.02 0.67  
Final Sat.: 1700 3400 1700 1700 3400 1700 1700 81 1619 530 36 1133

Capacity Analysis Module:  
Vol/Sat: 0.02 0.23 0.00 0.01 0.28 0.02 0.02 0.01 0.01 0.03 0.08 0.08  
Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\* \*\*\*\*

\*\*\*\*\*

Level of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #3 Crown Valley Pkwy/Church Dwy

Average Delay (sec/veh): 0.4 Worst Case Level Of Service: B[ 11.5]

Table with columns for Street Name, Approach, Movement, Control, Rights, Lanes, and Volume Module. Includes data for Crown Valley Pkwy and Church Dwy.

Table with columns for Critical Gap Module, FollowUpTim, Capacity Module, and Level of Service Module. Includes data for various traffic scenarios.

Note: Queue reported is the number of cars per lane.

Level of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #4 Crown Valley Pkwy/Lumeria Ln

Average Delay (sec/veh): 0.1 Worst Case Level Of Service: B[ 10.9]

Table with columns for Street Name, Approach, Movement, Control, Rights, Lanes, and Volume Module. Includes data for Crown Valley Pkwy and Lumeria Ln.

Table with columns for Critical Gap Module, FollowUpTim, Capacity Module, and Level of Service Module. Includes data for various traffic scenarios.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 Crown Valley Pkwy/Pacific Coast Hwy

Cycle (sec): 100 Critical Vol./Cap.(X): 0.529
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 25 Level Of Service: A

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, Y+R, Lanes. Rows include Crown Valley Pkwy and Pacific Coast Hwy with North, South, East, and West bounds.

Volume Module table showing Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume, and OvlAdjVol for various approaches.

Saturation Flow Module table showing Sat/Lane, Adjustment, Lanes, and Final Sat. values for different approaches.

Capacity Analysis Module table showing Vol/Sat, OvlAdjV/S, and Crit Moves for various approaches.

Level Of Service Computation Report  
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #1 Crown Valley Pkwy/Camino Del Avion  
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.444  
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx  
Optimal Cycle: 21 Level Of Service: A  
\*\*\*\*\*

Street Name: Crown Valley Pkwy Camino Del Avion  
Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R  
Control: Protected Protected Protected Protected  
Rights: Include Include Include Include  
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0  
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0  
Lanes: 1 0 3 0 1 1 0 2 0 1 1 0 1 0 1 2 0 1 0 1

Volume Module:  
Base Vol: 47 615 102 129 792 14 4 36 94 260 56 203  
Growth 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  
Initial Bse: 47 615 102 129 792 14 4 36 94 260 56 203  
Added Vol: 0 0 0 0 5 0 0 0 0 1 0 0 0  
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0  
Initial Fut: 47 615 102 129 797 14 4 36 94 261 56 203  
User 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  
PHF 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  
PHF Volume: 47 615 102 129 797 14 4 36 94 261 56 203  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 47 615 102 129 797 14 4 36 94 261 56 203  
PCE 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  
MLF 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  
FinalVolume: 47 615 102 129 797 14 4 36 94 261 56 203

Saturation Flow Module:  
Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700  
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Lanes: 1.00 3.00 1.00 1.00 2.00 1.00 1.00 1.00 1.00 2.00 1.00 1.00  
Final Sat.: 1700 5100 1700 1700 3400 1700 1700 1700 1700 3400 1700 1700

Capacity Analysis Module:  
Vol/Sat: 0.03 0.12 0.06 0.08 0.23 0.01 0.00 0.02 0.06 0.08 0.03 0.12  
Crit Moves: \*\*\*\*

\*\*\*\*\*

Level Of Service Computation Report  
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #2 Crown Valley Pkwy/Sea Island Dr-Church Dwy  
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.405  
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx  
Optimal Cycle: 20 Level Of Service: A  
\*\*\*\*\*

Street Name: Crown Valley Pkwy Sea Island Dr-Church Dwy  
Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R  
Control: Protected Protected Permitted Permitted  
Rights: Include Include Include Include  
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0  
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0  
Lanes: 1 0 2 0 1 1 0 2 0 1 1 0 0 1 0 1 0 0 1 0

Volume Module:  
Base Vol: 18 706 3 48 1072 43 44 3 30 3 1 5  
Growth 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  
Initial Bse: 18 706 3 48 1072 43 44 3 30 3 1 5  
Added Vol: 0 0 0 7 0 0 0 0 0 0 0 0 0  
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0  
Initial Fut: 18 706 3 55 1072 43 44 3 30 3 1 5  
User 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  
PHF 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  
PHF Volume: 18 706 3 55 1072 43 44 3 30 3 1 5  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 18 706 3 55 1072 43 44 3 30 3 1 5  
PCE 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  
MLF 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  
FinalVolume: 18 706 3 55 1072 43 44 3 30 3 1 5

Saturation Flow Module:  
Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700  
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 1.00 0.09 0.91 1.00 0.17 0.83  
Final Sat.: 1700 3400 1700 1700 3400 1700 1700 155 1545 1700 283 1417

Capacity Analysis Module:  
Vol/Sat: 0.01 0.21 0.00 0.03 0.32 0.03 0.03 0.02 0.02 0.00 0.00 0.00  
Crit Moves: \*\*\*\*

\*\*\*\*\*

Level of Service Computation Report  
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #3 Crown Valley Pkwy/Church Dwy

Average Delay (sec/veh): 0.0 Worst Case Level Of Service: A[ 0.0]

Table with columns for Street Name, Approach, Movement, Control, Rights, Lanes, and Volume Module. Rows include Crown Valley Pkwy (North/South Bound) and Church Dwy (East/West Bound).

Table with columns for Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, and FinalVolume. Rows include Crown Valley Pkwy and Church Dwy.

Table with columns for Critical Gap Module, Critical Gp, FollowUpTim, Capacity Module, Cnflict Vol, Potent Cap, Move Cap, and Volume/Cap. Rows include Crown Valley Pkwy and Church Dwy.

Table with columns for Level of Service Module, 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap, SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS. Rows include Crown Valley Pkwy and Church Dwy.

Note: Queue reported is the number of cars per lane.

Level of Service Computation Report  
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #4 Crown Valley Pkwy/Lumeria Ln

Average Delay (sec/veh): 0.1 Worst Case Level Of Service: C[ 18.4]

Table with columns for Street Name, Approach, Movement, Control, Rights, Lanes, and Volume Module. Rows include Crown Valley Pkwy (North/South Bound) and Lumeria Ln (East/West Bound).

Table with columns for Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, and FinalVolume. Rows include Crown Valley Pkwy and Lumeria Ln.

Table with columns for Critical Gap Module, Critical Gp, FollowUpTim, Capacity Module, Cnflict Vol, Potent Cap, Move Cap, and Volume/Cap. Rows include Crown Valley Pkwy and Lumeria Ln.

Table with columns for Level of Service Module, 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap, SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS. Rows include Crown Valley Pkwy and Lumeria Ln.

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #5 Crown Valley Pkwy/Pacific Coast Hwy
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      0.577
Loss Time (sec):   5           Average Delay (sec/veh):    xxxxxx
Optimal Cycle:    27           Level Of Service:          A
*****
Street Name:      Crown Valley Pkwy          Pacific Coast Hwy
Approach:         North Bound          South Bound          East Bound          West Bound
Movement:         L - T - R          L - T - R          L - T - R          L - T - R
-----|-----|-----|-----|
Control:          Split Phase          Split Phase          Protected          Protected
Rights:           Include             Ovl                 Include             Ovl
Min. Green:       0 0 0              0 0 0              0 0 0              0 0 0
Y+R:              4.0 4.0 4.0        4.0 4.0 4.0        4.0 4.0 4.0        4.0 4.0 4.0
Lanes:            0 1 0 1 0          1 1 0 0 2          2 0 1 1 0          1 0 2 0 1
-----|-----|-----|-----|
Volume Module:
Base Vol:         13 28 26          198 33 776         421 503 10         30 949 193
Growth 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
Initial Bse:     13 28 26          198 33 776         421 503 10         30 949 193
Added Vol:       0 0 0              0 0 0              3 0 0              0 0 0 2
PasserByVol:    0 0 0              0 0 0              0 0 0              0 0 0 0
Initial Fut:     13 28 26          198 33 776         424 503 10         30 949 195
User 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
PHF 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
PHF Volume:      13 28 26          198 33 776         424 503 10         30 949 195
Reduct Vol:     0 0 0              0 0 0              0 0 0              0 0 0 0
Reduced Vol:    13 28 26          198 33 776         424 503 10         30 949 195
PCE 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
MLF 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
FinalVolume:    13 28 26          198 33 776         424 503 10         30 949 195
OvlAdjVol:      352                                     79
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:        1700 1700 1700    1700 1700 1700    1700 1700 1700    1700 1700 1700
Adjustment:      1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00
Lanes:           0.39 0.83 0.78    1.71 0.29 2.00    2.00 1.96 0.04    1.00 2.00 1.00
Final Sat.:      660 1421 1319    2914 486 3400    3400 3334 66     1700 3400 1700
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:         0.02 0.02 0.02    0.07 0.07 0.23    0.12 0.15 0.15    0.02 0.28 0.11
OvlAdjV/S:      0.10                                     0.05
Crit Moves:     ****                                     ****
*****

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Level Of Service Computation Report  
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #1 Crown Valley Pkwy/Camino Del Avion  
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.488  
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx  
Optimal Cycle: 23 Level Of Service: A

Street Name: Crown Valley Pkwy Camino Del Avion  
Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R  
Control: Protected Protected Protected Protected  
Rights: Include Include Include Include  
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0  
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0  
Lanes: 1 0 3 0 1 1 0 2 0 1 1 0 1 0 1 1 2 0 1 0 1

Volume Module:  
Base Vol: 62 818 206 301 790 9 13 72 98 140 83 133  
Growth 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  
Initial Bse: 62 818 206 301 790 9 13 72 98 140 83 133  
Added Vol: 1 8 2 0 0 0 0 0 0 0 0 0 0  
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0  
Initial Fut: 63 826 208 301 790 9 13 72 98 140 83 133  
User 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  
PHF 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  
PHF Volume: 63 826 208 301 790 9 13 72 98 140 83 133  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 63 826 208 301 790 9 13 72 98 140 83 133  
PCE 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  
MLF 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  
FinalVolume: 63 826 208 301 790 9 13 72 98 140 83 133

Saturation Flow Module:  
Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700  
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Lanes: 1.00 3.00 1.00 1.00 2.00 1.00 1.00 1.00 1.00 2.00 1.00 1.00  
Final Sat.: 1700 5100 1700 1700 3400 1700 1700 1700 1700 3400 1700 1700

Capacity Analysis Module:  
Vol/Sat: 0.04 0.16 0.12 0.18 0.23 0.01 0.01 0.04 0.06 0.04 0.05 0.08  
Crit Moves: \*\*\*\*

\*\*\*\*\*

Level Of Service Computation Report  
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #2 Crown Valley Pkwy/Sea Island Dr-Church Dwy  
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.388  
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx  
Optimal Cycle: 20 Level Of Service: A

Street Name: Crown Valley Pkwy Sea Island Dr-Church Dwy  
Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R  
Control: Protected Protected Permitted Permitted  
Rights: Include Include Include Include  
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0  
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0  
Lanes: 1 0 2 0 1 1 0 2 0 1 1 0 0 1 0 1 0 0 1 0

Volume Module:  
Base Vol: 26 1015 2 16 993 47 42 0 27 8 0 6  
Growth 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  
Initial Bse: 26 1015 2 16 993 47 42 0 27 8 0 6  
Added Vol: 0 7 0 0 0 0 0 0 0 0 7 0 4  
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0  
Initial Fut: 26 1022 2 16 993 47 42 0 27 15 0 10  
User 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  
PHF 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  
PHF Volume: 26 1022 2 16 993 47 42 0 27 15 0 10  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 26 1022 2 16 993 47 42 0 27 15 0 10  
PCE 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  
MLF 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  
FinalVolume: 26 1022 2 16 993 47 42 0 27 15 0 10

Saturation Flow Module:  
Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700  
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 1.00 0.00 1.00 1.00 0.00 1.00  
Final Sat.: 1700 3400 1700 1700 3400 1700 1700 0 1700 1700 0 1700

Capacity Analysis Module:  
Vol/Sat: 0.02 0.30 0.00 0.01 0.29 0.03 0.02 0.00 0.02 0.01 0.00 0.01  
Crit Moves: \*\*\*\*

\*\*\*\*\*



Level of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #3 Crown Valley Pkwy/Church Dwy

Average Delay (sec/veh): 0.1 Worst Case Level of Service: B[ 12.3]

Street Name: Crown Valley Pkwy Church Dwy

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Uncontrolled Uncontrolled Stop Sign Stop Sign

Rights: Include Include Include Include

Lanes: 0 0 1 1 0 0 0 2 0 0 0 0 0 0 0 0 1

Volume Module: Base Vol: 0 1043 0 0 1028 0 0 0 0 0 0 0 2

Growth 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

Initial Bse: 0 1043 0 0 1028 0 0 0 0 0 0 0 2

Added Vol: 0 0 0 0 7 0 0 0 0 0 0 0 7

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 0 1043 0 0 1035 0 0 0 0 0 0 0 9

User 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

PHF 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

PHF Volume: 0 1043 0 0 1035 0 0 0 0 0 0 0 9

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0

FinalVolume: 0 1043 0 0 1035 0 0 0 0 0 0 0 9

Critical Gap Module: Critical Gp:xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 6.9

FollowUpTim:xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 3.3

Capacity Module: Cnflct Vol: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 522

Potent Cap.: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 505

Move Cap.: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 505

Volume/Cap: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 0.02

Level of Service Module: 2Way95thQ: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 0.1

Control Del:xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 12.3

LOS by Move: \* B

Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT

Shared Cap.: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx

SharedQueue:xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx

Shrd ConDel:xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx

Shared LOS: \* D

ApproachDel: xxxxxx xxxxxx xxxxxx 12.3

ApproachLOS: \* B

Note: Queue reported is the number of cars per lane.

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Level of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #4 Crown Valley Pkwy/Lumeria Ln

Average Delay (sec/veh): 0.1 Worst Case Level of Service: D[ 25.8]

Street Name: Crown Valley Pkwy Lumeria Ln

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Uncontrolled Uncontrolled Stop Sign Stop Sign

Rights: Include Include Include Include

Lanes: 0 0 1 1 0 1 0 2 0 0 0 0 0 0 1! 0 0

Volume Module: Base Vol: 0 1043 6 7 1028 0 0 0 0 4 0 5

Growth 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

Initial Bse: 0 1043 6 7 1028 0 0 0 0 4 0 5

Added Vol: 0 0 0 0 7 0 0 0 0 0 0 0 7

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 0 1043 6 7 1035 0 0 0 0 4 0 5

User 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

PHF 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

PHF Volume: 0 1043 6 7 1035 0 0 0 0 4 0 5

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0

FinalVolume: 0 1043 6 7 1035 0 0 0 0 4 0 5

Critical Gap Module: Critical Gp:xxxxx xxxxx xxxxx 4.1 xxxxx xxxxx xxxxx xxxxx xxxxx 6.8 6.5 6.9

FollowUpTim:xxxxx xxxxx xxxxx 2.2 xxxxx xxxxx xxxxx xxxxx xxxxx 3.5 4.0 3.3

Capacity Module: Cnflct Vol: xxxxx xxxxx xxxxx 1049 xxxxx xxxxx xxxxx xxxxx xxxxx 1578 2095 525

Potent Cap.: xxxxx xxxxx xxxxx 671 xxxxx xxxxx xxxxx xxxxx xxxxx 102 53 503

Move Cap.: xxxxx xxxxx xxxxx 671 xxxxx xxxxx xxxxx xxxxx xxxxx 101 52 503

Volume/Cap: xxxxx xxxxx xxxxx 0.01 xxxxx xxxxx xxxxx xxxxx xxxxx 0.04 0.00 0.01

Level of Service Module: 2Way95thQ: xxxxx xxxxx xxxxx 0.0 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx

Control Del:xxxxx xxxxx xxxxx 10.4 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx

LOS by Move: \* \* \* \* \* B \*

Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT

Shared Cap.: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 182 xxxxx

SharedQueue:xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 0.2 xxxxx

Shrd ConDel:xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 25.8 xxxxx

Shared LOS: \* D

ApproachDel: xxxxxx xxxxxx xxxxxx 25.8

ApproachLOS: \* D

Note: Queue reported is the number of cars per lane.

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-----
Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #5 Crown Valley Pkwy/Pacific Coast Hwy
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      0.574
Loss Time (sec):   5           Average Delay (sec/veh):    xxxxxx
Optimal Cycle:    27           Level Of Service:          A
*****
Street Name:      Crown Valley Pkwy          Pacific Coast Hwy
Approach:         North Bound          South Bound          East Bound          West Bound
Movement:         L - T - R          L - T - R          L - T - R          L - T - R
-----|-----|-----|-----|
Control:          Split Phase          Split Phase          Protected          Protected
Rights:           Include              Ovl                 Include              Ovl
Min. Green:       0 0 0              0 0 0              0 0 0              0 0 0
Y+R:              4.0 4.0 4.0        4.0 4.0 4.0        4.0 4.0 4.0        4.0 4.0 4.0
Lanes:            0 1 0 1 0          1 1 0 0 2          2 0 1 1 0          1 0 2 0 1
-----|-----|-----|-----|
Volume Module:
Base Vol:         12 44 30           215 40 470         721 961 12         30 719 216
Growth 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
Initial Bse:      12 44 30           215 40 470         721 961 12         30 719 216
Added Vol:        0 0 0              2 0 4              0 0 0              0 0 0
PasserByVol:     0 0 0              0 0 0              0 0 0              0 0 0
Initial Fut:      12 44 30           217 40 474         721 961 12         30 719 216
User 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
PHF 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
PHF Volume:       12 44 30           217 40 474         721 961 12         30 719 216
Reduct Vol:       0 0 0              0 0 0              0 0 0              0 0 0
Reduced Vol:     12 44 30           217 40 474         721 961 12         30 719 216
PCE 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
MLF 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
FinalVolume:     12 44 30           217 40 474         721 961 12         30 719 216
OvlAdjVol:        0                               0                               87
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:         1700 1700 1700   1700 1700 1700   1700 1700 1700   1700 1700 1700
Adjustment:       1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
Lanes:            0.28 1.02 0.70   1.69 0.31 2.00   2.00 1.98 0.02   1.00 2.00 1.00
Final Sat.:       474 1740 1186   2871 529 3400   3400 3358 42     1700 3400 1700
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:          0.03 0.03 0.03   0.08 0.08 0.14   0.21 0.29 0.29   0.02 0.21 0.13
OvlAdjV/S:       0.00                               0.00                               0.05
Crit Moves:      ****                               ****                               ****
*****

```

-----  
Level Of Service Computation Report  
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)  
\*\*\*\*\*  
Intersection #1 Crown Valley Pkwy/Camino Del Avion  
\*\*\*\*\*  
Cycle (sec): 100 Critical Vol./Cap.(X): 0.435  
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx  
Optimal Cycle: 21 Level Of Service: A  
\*\*\*\*\*  
Street Name: Crown Valley Pkwy Camino Del Avion  
Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R  
-----  
Control: Protected Protected Protected Protected  
Rights: Include Include Include Include  
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0  
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0  
Lanes: 1 0 3 0 1 1 0 2 0 1 1 0 1 0 1  
-----  
Volume Module:  
Base Vol: 87 674 211 210 751 5 13 43 81 151 61 165  
Growth 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  
Initial Bse: 87 674 211 210 751 5 13 43 81 151 61 165  
Added Vol: 2 22 6 0 25 0 0 0 2 7 0 0  
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0  
Initial Fut: 89 696 217 210 776 5 13 43 83 158 61 165  
User 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  
PHF 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  
PHF Volume: 89 696 217 210 776 5 13 43 83 158 61 165  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 89 696 217 210 776 5 13 43 83 158 61 165  
PCE 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  
MLF 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  
FinalVolume: 89 696 217 210 776 5 13 43 83 158 61 165  
-----  
Saturation Flow Module:  
Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700  
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Lanes: 1.00 3.00 1.00 1.00 2.00 1.00 1.00 1.00 1.00 2.00 1.00 1.00  
Final Sat.: 1700 5100 1700 1700 3400 1700 1700 1700 1700 3400 1700 1700  
-----  
Capacity Analysis Module:  
Vol/Sat: 0.05 0.14 0.13 0.12 0.23 0.00 0.01 0.03 0.05 0.05 0.04 0.10  
Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\* \*\*\*\*  
\*\*\*\*\*

-----  
Level Of Service Computation Report  
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)  
\*\*\*\*\*  
Intersection #2 Crown Valley Pkwy/Sea Island Dr-Church Dwy  
\*\*\*\*\*  
Cycle (sec): 100 Critical Vol./Cap.(X): 0.429  
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx  
Optimal Cycle: 21 Level Of Service: A  
\*\*\*\*\*  
Street Name: Crown Valley Pkwy Sea Island Dr-Church Dwy  
Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R  
-----  
Control: Protected Protected Permitted Permitted  
Rights: Include Include Include Include  
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0  
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0  
Lanes: 1 0 2 0 1 1 0 2 0 1 1 0 0 1 0 1 0 1 0  
-----  
Volume Module:  
Base Vol: 33 797 6 22 943 40 32 1 20 44 3 94  
Growth 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  
Initial Bse: 33 797 6 22 943 40 32 1 20 44 3 94  
Added Vol: 0 19 2 34 0 0 0 0 1 0 19 1 10  
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0  
Initial Fut: 33 816 8 56 943 40 32 2 20 63 4 104  
User 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  
PHF 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  
PHF Volume: 33 816 8 56 943 40 32 2 20 63 4 104  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 33 816 8 56 943 40 32 2 20 63 4 104  
PCE 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  
MLF 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  
FinalVolume: 33 816 8 56 943 40 32 2 20 63 4 104  
-----  
Saturation Flow Module:  
Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700  
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 1.00 0.09 0.91 1.00 0.04 0.96  
Final Sat.: 1700 3400 1700 1700 3400 1700 1700 155 1545 1700 63 1637  
-----  
Capacity Analysis Module:  
Vol/Sat: 0.02 0.24 0.00 0.03 0.28 0.02 0.02 0.01 0.01 0.04 0.06 0.06  
Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\* \*\*\*\*  
\*\*\*\*\*

Level of Service Computation Report  
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #3 Crown Valley Pkwy/Church Dwy

Average Delay (sec/veh): 0.5 Worst Case Level Of Service: B[ 11.9]

Table with columns: Street Name, Approach, Movement, Control, Rights, Lanes. Rows for North Bound, South Bound, East Bound, West Bound.

Volume Module table with columns: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, FinalVolume.

Critical Gap Module table with columns: Critical Gp, FollowUpTim.

Capacity Module table with columns: Cnflct Vol, Potent Cap., Move Cap., Volume/Cap.

Level of Service Module table with columns: 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

Note: Queue reported is the number of cars per lane.

Level of Service Computation Report  
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #4 Crown Valley Pkwy/Lumeria Ln

Average Delay (sec/veh): 0.1 Worst Case Level Of Service: B[ 11.0]

Table with columns: Street Name, Approach, Movement, Control, Rights, Lanes. Rows for North Bound, South Bound, East Bound, West Bound.

Volume Module table with columns: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, FinalVolume.

Critical Gap Module table with columns: Critical Gp, FollowUpTim.

Capacity Module table with columns: Cnflct Vol, Potent Cap., Move Cap., Volume/Cap.

Level of Service Module table with columns: 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

Note: Queue reported is the number of cars per lane.

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-----
Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #5 Crown Valley Pkwy/Pacific Coast Hwy
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      0.535
Loss Time (sec):   5           Average Delay (sec/veh):    xxxxxx
Optimal Cycle:    25           Level Of Service:          A
*****
Street Name:      Crown Valley Pkwy          Pacific Coast Hwy
Approach:         North Bound          South Bound          East Bound          West Bound
Movement:         L - T - R          L - T - R          L - T - R          L - T - R
-----|-----|-----|-----|-----|
Control:          Split Phase          Split Phase          Protected          Protected
Rights:           Include             Ovl                 Include             Ovl
Min. Green:       0 0 0              0 0 0              0 0 0              0 0 0
Y+R:              4.0 4.0 4.0        4.0 4.0 4.0        4.0 4.0 4.0        4.0 4.0 4.0
Lanes:            0 1 0 1 0          1 1 0 0 2          2 0 1 1 0          1 0 2 0 1
-----|-----|-----|-----|-----|
Volume Module:
Base Vol:         1 25 19           309 33           507 428 634       14 27 814 227
Growth 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
Initial Bse:     1 25 19           309 33           507 428 634       14 27 814 227
Added Vol:       0 1 0             6 0             12 14             0 0             0 0 7
PasserByVol:    0 0 0             0 0             0 0             0 0             0 0 0
Initial Fut:     1 26 19           315 33           519 442 634       14 27 814 234
User 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
PHF 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
PHF Volume:      1 26 19           315 33           519 442 634       14 27 814 234
Reduct Vol:      0 0 0             0 0             0 0             0 0             0 0 0
Reduced Vol:     1 26 19           315 33           519 442 634       14 27 814 234
PCE 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
MLF 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
FinalVolume:     1 26 19           315 33           519 442 634       14 27 814 234
OvlAdjVol:       77
-----|-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:        1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
Adjustment:      1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
Lanes:           0.04 1.13 0.83   1.81 0.19 2.00   2.00 1.96 0.04   1.00 2.00 1.00
Final Sat.:      74 1922 1404   3078 322 3400   3400 3327 73     1700 3400 1700
-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:         0.01 0.01 0.01   0.10 0.10 0.15   0.13 0.19 0.19   0.02 0.24 0.14
OvlAdjV/S:      0.02
Crit Moves:      ****             ****             ****             ****
*****

```

**APPENDIX C**

**CUMULATIVE PROJECTS VOLUMES**

### Cumulative Project Volumes

#### 1. Headlands

| Intersection                   | Peak Hour | NBL | NBT | NBR | SBL | SBT | SBR | EBL | EBT | EBR | WBL | WBT | WBR |
|--------------------------------|-----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Crown Valley/Camino Del Avion  | AM        |     | 11  |     |     | 10  |     |     |     |     |     |     |     |
|                                | PM        |     | 18  |     |     | 22  |     |     |     |     |     |     |     |
|                                | Sun Mid   |     | 18  |     |     | 22  |     |     |     |     |     |     |     |
| Crown Valley/Sea Island-FA Dwy | AM        |     | 11  |     |     | 10  |     |     |     |     |     |     |     |
|                                | PM        |     | 18  |     |     | 22  |     |     |     |     |     |     |     |
|                                | Sun Mid   |     | 18  |     |     | 22  |     |     |     |     |     |     |     |
| Crown Valley/RIRO Dwy          | AM        |     | 11  |     |     | 10  |     |     |     |     |     |     |     |
|                                | PM        |     | 18  |     |     | 22  |     |     |     |     |     |     |     |
|                                | Sun Mid   |     | 18  |     |     | 22  |     |     |     |     |     |     |     |
| Crown Valley/Lumeria           | AM        |     | 11  |     |     | 10  |     |     |     |     |     |     |     |
|                                | PM        |     | 18  |     |     | 22  |     |     |     |     |     |     |     |
|                                | Sun Mid   |     | 18  |     |     | 22  |     |     |     |     |     |     |     |
| Crown Valley/PCH               | AM        |     |     |     | 10  |     |     | 8   |     |     | 9   | 11  |     |
|                                | PM        |     |     |     | 22  |     |     | 18  |     |     | 14  | 18  |     |
|                                | Sun Mid   |     |     |     | 22  |     |     | 18  |     |     | 14  | 18  |     |

#### 2. Town Center Specific Plan

| Intersection                   | Peak Hour | NBL | NBT | NBR | SBL | SBT | SBR | EBL | EBT | EBR | WBL | WBT | WBR |
|--------------------------------|-----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Crown Valley/Camino Del Avion  | AM        |     |     |     |     |     |     |     |     |     |     |     |     |
|                                | PM        |     |     |     |     |     |     |     |     |     |     |     |     |
|                                | Sun Mid   |     |     |     |     |     |     |     |     |     |     |     |     |
| Crown Valley/Sea Island-FA Dwy | AM        |     |     |     |     |     |     |     |     |     |     |     |     |
|                                | PM        |     |     |     |     |     |     |     |     |     |     |     |     |
|                                | Sun Mid   |     |     |     |     |     |     |     |     |     |     |     |     |
| Crown Valley/RIRO Dwy          | AM        |     |     |     |     |     |     |     |     |     |     |     |     |
|                                | PM        |     |     |     |     |     |     |     |     |     |     |     |     |
|                                | Sun Mid   |     |     |     |     |     |     |     |     |     |     |     |     |
| Crown Valley/Lumeria           | AM        |     |     |     |     |     |     |     |     |     |     |     |     |
|                                | PM        |     |     |     |     |     |     |     |     |     |     |     |     |
|                                | Sun Mid   |     |     |     |     |     |     |     |     |     |     |     |     |
| Crown Valley/PCH               | AM        |     |     |     |     |     |     |     |     | 76  |     | 45  |     |
|                                | PM        |     |     |     |     |     |     |     |     | 94  |     | 125 |     |
|                                | Sun Mid   |     |     |     |     |     |     |     |     | 94  |     | 125 |     |

#### 3. Dana Point Harbor Revitalization

| Intersection                   | Peak Hour | NBL | NBT | NBR | SBL | SBT | SBR | EBL | EBT | EBR | WBL | WBT | WBR |
|--------------------------------|-----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Crown Valley/Camino Del Avion  | AM        |     |     |     |     |     |     |     |     |     |     |     |     |
|                                | PM        |     |     |     |     |     |     |     |     |     |     |     |     |
|                                | Sun Mid   |     |     |     |     |     |     |     |     |     |     |     |     |
| Crown Valley/Sea Island-FA Dwy | AM        |     |     |     |     |     |     |     |     |     |     |     |     |
|                                | PM        |     |     |     |     |     |     |     |     |     |     |     |     |
|                                | Sun Mid   |     |     |     |     |     |     |     |     |     |     |     |     |
| Crown Valley/RIRO Dwy          | AM        |     |     |     |     |     |     |     |     |     |     |     |     |
|                                | PM        |     |     |     |     |     |     |     |     |     |     |     |     |
|                                | Sun Mid   |     |     |     |     |     |     |     |     |     |     |     |     |
| Crown Valley/Lumeria           | AM        |     |     |     |     |     |     |     |     |     |     |     |     |
|                                | PM        |     |     |     |     |     |     |     |     |     |     |     |     |
|                                | Sun Mid   |     |     |     |     |     |     |     |     |     |     |     |     |
| Crown Valley/PCH               | AM        |     |     |     |     |     |     | 23  |     |     | 20  |     |     |
|                                | PM        |     |     |     |     |     |     | 31  |     |     | 24  |     |     |
|                                | Sun Mid   |     |     |     |     |     |     | 31  |     |     | 24  |     |     |

#### 4. Ritz Carlton Expansion

| Intersection                   | Peak Hour | NBL | NBT | NBR | SBL | SBT | SBR | EBL | EBT | EBR | WBL | WBT | WBR |
|--------------------------------|-----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Crown Valley/Camino Del Avion  | AM        |     | 1   |     |     | 2   |     |     |     |     |     |     |     |
|                                | PM        |     | 1   |     |     | 2   |     |     |     |     |     |     |     |
|                                | Sun Mid   |     | 1   |     |     | 2   |     |     |     |     |     |     |     |
| Crown Valley/Sea Island-FA Dwy | AM        |     | 1   |     |     | 2   |     |     |     |     |     |     |     |
|                                | PM        |     | 1   |     |     | 2   |     |     |     |     |     |     |     |
|                                | Sun Mid   |     | 1   |     |     | 2   |     |     |     |     |     |     |     |
| Crown Valley/RIRO Dwy          | AM        |     | 1   |     |     | 2   |     |     |     |     |     |     |     |
|                                | PM        |     | 1   |     |     | 2   |     |     |     |     |     |     |     |
|                                | Sun Mid   |     | 1   |     |     | 2   |     |     |     |     |     |     |     |
| Crown Valley/Lumeria           | AM        |     | 1   |     |     | 2   |     |     |     |     |     |     |     |
|                                | PM        |     | 1   |     |     | 2   |     |     |     |     |     |     |     |
|                                | Sun Mid   |     | 1   |     |     | 2   |     |     |     |     |     |     |     |
| Crown Valley/PCH               | AM        |     |     |     | 2   |     |     |     |     | 3   |     | 2   | 1   |
|                                | PM        |     |     |     | 2   |     |     |     |     | 3   |     | 2   | 1   |
|                                | Sun Mid   |     |     |     | 2   |     |     |     |     | 3   |     | 2   | 1   |

#### 5. Doheny Hotel

| Intersection                   | Peak Hour | NBL | NBT | NBR | SBL | SBT | SBR | EBL | EBT | EBR | WBL | WBT | WBR |
|--------------------------------|-----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Crown Valley/Camino Del Avion  | AM        |     |     |     |     |     |     |     |     |     |     |     |     |
|                                | PM        |     |     |     |     |     |     |     |     |     |     |     |     |
|                                | Sun Mid   |     |     |     |     |     |     |     |     |     |     |     |     |
| Crown Valley/Sea Island-FA Dwy | AM        |     |     |     |     |     |     |     |     |     |     |     |     |
|                                | PM        |     |     |     |     |     |     |     |     |     |     |     |     |
|                                | Sun Mid   |     |     |     |     |     |     |     |     |     |     |     |     |
| Crown Valley/RIRO Dwy          | AM        |     |     |     |     |     |     |     |     |     |     |     |     |
|                                | PM        |     |     |     |     |     |     |     |     |     |     |     |     |
|                                | Sun Mid   |     |     |     |     |     |     |     |     |     |     |     |     |
| Crown Valley/Lumeria           | AM        |     |     |     |     |     |     |     |     |     |     |     |     |
|                                | PM        |     |     |     |     |     |     |     |     |     |     |     |     |
|                                | Sun Mid   |     |     |     |     |     |     |     |     |     |     |     |     |
| Crown Valley/PCH               | AM        |     |     |     |     |     |     | 22  |     |     | 9   |     |     |
|                                | PM        |     |     |     |     |     |     | 22  |     |     | 15  |     |     |
|                                | Sun Mid   |     |     |     |     |     |     | 26  |     |     | 15  |     |     |

#### 6. 34202 Del Obispo Street

| Intersection                   | Peak Hour | NBL | NBT | NBR | SBL | SBT | SBR | EBL | EBT | EBR | WBL | WBT | WBR |
|--------------------------------|-----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Crown Valley/Camino Del Avion  | AM        |     |     |     |     |     |     |     |     |     |     |     |     |
|                                | PM        |     |     |     |     |     |     |     |     |     |     |     |     |
|                                | Sun Mid   |     |     |     |     |     |     |     |     |     |     |     |     |
| Crown Valley/Sea Island-FA Dwy | AM        |     |     |     |     |     |     |     |     |     |     |     |     |
|                                | PM        |     |     |     |     |     |     |     |     |     |     |     |     |
|                                | Sun Mid   |     |     |     |     |     |     |     |     |     |     |     |     |
| Crown Valley/RIRO Dwy          | AM        |     |     |     |     |     |     |     |     |     |     |     |     |
|                                | PM        |     |     |     |     |     |     |     |     |     |     |     |     |
|                                | Sun Mid   |     |     |     |     |     |     |     |     |     |     |     |     |
| Crown Valley/Lumeria           | AM        |     |     |     |     |     |     |     |     |     |     |     |     |
|                                | PM        |     |     |     |     |     |     |     |     |     |     |     |     |
|                                | Sun Mid   |     |     |     |     |     |     |     |     |     |     |     |     |
| Crown Valley/PCH               | AM        |     |     |     |     |     |     |     |     | 7   |     | 20  |     |
|                                | PM        |     |     |     |     |     |     |     |     | 25  |     | 17  |     |
|                                | Sun Mid   |     |     |     |     |     |     |     |     | 25  |     | 17  |     |

#### Total Cumulative Project Volumes

| Intersection                   | Peak Hour | NBL | NBT | NBR | SBL | SBT | SBR | EBL | EBT | EBR | WBL | WBT | WBR |
|--------------------------------|-----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Crown Valley/Camino Del Avion  | AM        |     | 12  |     |     | 12  |     |     |     |     |     |     |     |
|                                | PM        |     | 19  |     |     | 24  |     |     |     |     |     |     |     |
|                                | Sun Mid   |     | 19  |     |     | 24  |     |     |     |     |     |     |     |
| Crown Valley/Sea Island-FA Dwy | AM        |     | 12  |     |     | 12  |     |     |     |     |     |     |     |
|                                | PM        |     | 19  |     |     | 24  |     |     |     |     |     |     |     |
|                                | Sun Mid   |     | 19  |     |     | 24  |     |     |     |     |     |     |     |
| Crown Valley/RIRO Dwy          | AM        |     | 12  |     |     | 12  |     |     |     |     |     |     |     |
|                                | PM        |     | 19  |     |     | 24  |     |     |     |     |     |     |     |
|                                | Sun Mid   |     | 19  |     |     | 24  |     |     |     |     |     |     |     |
| Crown Valley/Lumeria           | AM        |     | 12  |     |     | 12  |     |     |     |     |     |     |     |
|                                | PM        |     | 19  |     |     | 24  |     |     |     |     |     |     |     |
|                                | Sun Mid   |     | 19  |     |     | 24  |     |     |     |     |     |     |     |
| Crown Valley/PCH               | AM        |     |     |     | 12  |     |     | 139 |     |     | 105 | 12  |     |
|                                | PM        |     |     |     | 24  |     |     | 193 |     |     | 197 | 19  |     |
|                                | Sun Mid   |     |     |     | 24  |     |     | 197 |     |     | 197 | 19  |     |



## **APPENDIX D**

### **FUTURE AND FUTURE PLUS PROJECT LEVEL OF SERVICE WORKSHEETS**

Level Of Service Computation Report  
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #1 Crown Valley Pkwy/Camino Del Avion  
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.497  
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx  
Optimal Cycle: 24 Level Of Service: A

Street Name: Crown Valley Pkwy Camino Del Avion  
Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R  
Control: Protected Protected Protected Protected  
Rights: Include Include Include Include  
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0  
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0  
Lanes: 1 0 3 0 1 1 0 2 0 1 1 0 1 0 1 2 0 1 0 1

Volume Module:  
Base Vol: 47 615 102 129 792 14 4 36 94 260 56 203  
Growth Adj: 1.13 1.13 1.13 1.13 1.13 1.13 1.13 1.13 1.13 1.13 1.13 1.13  
Initial Bse: 53 695 115 146 895 16 5 41 106 294 63 229  
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
PasserByVol: 0 12 0 0 12 0 0 0 0 0 0 0  
Initial Fut: 53 707 115 146 907 16 5 41 106 294 63 229  
User 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  
PHF 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  
PHF Volume: 53 707 115 146 907 16 5 41 106 294 63 229  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 53 707 115 146 907 16 5 41 106 294 63 229  
PCE 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  
MLF 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  
FinalVolume: 53 707 115 146 907 16 5 41 106 294 63 229

Saturation Flow Module:  
Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700  
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Lanes: 1.00 3.00 1.00 1.00 2.00 1.00 1.00 1.00 1.00 2.00 1.00 1.00  
Final Sat.: 1700 5100 1700 1700 3400 1700 1700 1700 1700 3400 1700 1700

Capacity Analysis Module:  
Vol/Sat: 0.03 0.14 0.07 0.09 0.27 0.01 0.00 0.02 0.06 0.09 0.04 0.13  
Crit Moves: \*\*\*\*

\*\*\*\*\*

Level Of Service Computation Report  
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #2 Crown Valley Pkwy/Sea Island Dr-Church Dwy  
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.452  
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx  
Optimal Cycle: 22 Level Of Service: A

Street Name: Crown Valley Pkwy Sea Island Dr-Church Dwy  
Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R  
Control: Protected Protected Permitted Permitted  
Rights: Include Include Include Include  
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0  
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0  
Lanes: 1 0 2 0 1 1 0 2 0 1 1 0 0 1 0 0 0 1 0 0

Volume Module:  
Base Vol: 18 706 3 48 1072 43 44 3 30 3 1 5  
Growth Adj: 1.00 1.13 1.00 1.00 1.13 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Initial Bse: 18 798 3 48 1211 43 44 3 30 3 1 5  
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
PasserByVol: 0 12 0 0 12 0 0 0 0 0 0 0  
Initial Fut: 18 810 3 48 1223 43 44 3 30 3 1 5  
User 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  
PHF 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  
PHF Volume: 18 810 3 48 1223 43 44 3 30 3 1 5  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 18 810 3 48 1223 43 44 3 30 3 1 5  
PCE 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  
MLF 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  
FinalVolume: 18 810 3 48 1223 43 44 3 30 3 1 5

Saturation Flow Module:  
Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700  
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 1.00 0.09 0.91 0.33 0.11 0.56  
Final Sat.: 1700 3400 1700 1700 3400 1700 1700 155 1545 567 189 944

Capacity Analysis Module:  
Vol/Sat: 0.01 0.24 0.00 0.03 0.36 0.03 0.03 0.02 0.02 0.00 0.01 0.01  
Crit Moves: \*\*\*\*

\*\*\*\*\*

Level of Service Computation Report  
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #3 Crown Valley Pkwy/Church Dwy

Average Delay (sec/veh): 0.0 Worst Case Level of Service: A[ 0.0]

Table with columns for Street Name, Approach, Movement, Control, Rights, Lanes, and Volume Module. Includes data for Crown Valley Pkwy and Church Dwy.

Table with columns for Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, FinalVolume.

Table with columns for Critical Gap Module, Critical Gp, FollowUpTim.

Table with columns for Capacity Module, Cnflct Vol, Potent Cap., Move Cap., Volume/Cap.

Table with columns for Level of Service Module, 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

Note: Queue reported is the number of cars per lane.

Level of Service Computation Report  
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #4 Crown Valley Pkwy/Lumeria Ln

Average Delay (sec/veh): 0.1 Worst Case Level of Service: C[ 21.9]

Table with columns for Street Name, Approach, Movement, Control, Rights, Lanes, and Volume Module. Includes data for Crown Valley Pkwy and Lumeria Ln.

Table with columns for Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, FinalVolume.

Table with columns for Critical Gap Module, Critical Gp, FollowUpTim.

Table with columns for Capacity Module, Cnflct Vol, Potent Cap., Move Cap., Volume/Cap.

Table with columns for Level of Service Module, 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*
Intersection #5 Crown Valley Pkwy/Pacific Coast Hwy
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.676
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 35 Level Of Service: B
\*\*\*\*\*

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, Y+R, Lanes. Rows include Crown Valley Pkwy and Pacific Coast Hwy with North, South, East, and West bounds.

Volume Module: Table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume, OvlAdjVol.

Saturation Flow Module: Table with columns for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Table with columns for Vol/Sat, OvlAdjV/S, Crit Moves.

-----  
 Level Of Service Computation Report  
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)  
 \*\*\*\*\*  
 Intersection #1 Crown Valley Pkwy/Camino Del Avion  
 \*\*\*\*\*  
 Cycle (sec): 100 Critical Vol./Cap.(X): 0.547  
 Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 26 Level Of Service: A  
 \*\*\*\*\*  
 Street Name: Crown Valley Pkwy Camino Del Avion  
 Approach: North Bound South Bound East Bound West Bound  
 Movement: L - T - R L - T - R L - T - R L - T - R  
 Control: Protected Protected Protected Protected  
 Rights: Include Include Include Include  
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0  
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0  
 Lanes: 1 0 3 0 1 1 0 2 0 1 1 0 1 0 1 2 0 1 0 1  
 -----  
 Volume Module:  
 Base Vol: 62 818 206 301 790 9 13 72 98 140 83 133  
 Growth Adj: 1.13 1.13 1.13 1.13 1.13 1.13 1.13 1.13 1.13 1.13 1.13 1.13  
 Initial Bse: 70 924 233 340 893 10 15 81 111 158 94 150  
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
 PasserByVol: 0 19 0 0 24 0 0 0 0 0 0 0  
 Initial Fut: 70 943 233 340 917 10 15 81 111 158 94 150  
 User 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  
 PHF 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  
 PHF Volume: 70 943 233 340 917 10 15 81 111 158 94 150  
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
 Reduced Vol: 70 943 233 340 917 10 15 81 111 158 94 150  
 PCE 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  
 MLF 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  
 FinalVolume: 70 943 233 340 917 10 15 81 111 158 94 150  
 -----  
 Saturation Flow Module:  
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700  
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 Lanes: 1.00 3.00 1.00 1.00 2.00 1.00 1.00 1.00 1.00 2.00 1.00 1.00  
 Final Sat.: 1700 5100 1700 1700 3400 1700 1700 1700 1700 3400 1700 1700  
 -----  
 Capacity Analysis Module:  
 Vol/Sat: 0.04 0.18 0.14 0.20 0.27 0.01 0.01 0.05 0.07 0.05 0.06 0.09  
 Crit Moves: \*\*\*\* \*\*

-----  
 Level Of Service Computation Report  
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)  
 \*\*\*\*\*  
 Intersection #2 Crown Valley Pkwy/Sea Island Dr-Church Dwy  
 \*\*\*\*\*  
 Cycle (sec): 100 Critical Vol./Cap.(X): 0.435  
 Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 21 Level Of Service: A  
 \*\*\*\*\*  
 Street Name: Crown Valley Pkwy Sea Island Dr-Church Dwy  
 Approach: North Bound South Bound East Bound West Bound  
 Movement: L - T - R L - T - R L - T - R L - T - R  
 Control: Protected Protected Permitted Permitted  
 Rights: Include Include Include Include  
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0  
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0  
 Lanes: 1 0 2 0 1 1 0 2 0 1 1 0 0 1 0 0 0 1 0 0  
 -----  
 Volume Module:  
 Base Vol: 26 1015 2 16 993 47 42 0 27 8 0 6  
 Growth Adj: 1.00 1.13 1.00 1.00 1.13 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 Initial Bse: 26 1147 2 16 1122 47 42 0 27 8 0 6  
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
 PasserByVol: 0 19 0 0 24 0 0 0 0 0 0 0  
 Initial Fut: 26 1166 2 16 1146 47 42 0 27 8 0 6  
 User 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  
 PHF 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  
 PHF Volume: 26 1166 2 16 1146 47 42 0 27 8 0 6  
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
 Reduced Vol: 26 1166 2 16 1146 47 42 0 27 8 0 6  
 PCE 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  
 MLF 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  
 FinalVolume: 26 1166 2 16 1146 47 42 0 27 8 0 6  
 -----  
 Saturation Flow Module:  
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700  
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 1.00 0.00 1.00 0.57 0.00 0.43  
 Final Sat.: 1700 3400 1700 1700 3400 1700 1700 0 1700 971 0 729  
 -----  
 Capacity Analysis Module:  
 Vol/Sat: 0.02 0.34 0.00 0.01 0.34 0.03 0.02 0.00 0.02 0.00 0.00 0.01  
 Crit Moves: \*\*\*\* \*\*

Level of Service Computation Report  
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #3 Crown Valley Pkwy/Church Dwy

Average Delay (sec/veh): 0.0 Worst Case Level Of Service: B[ 13.0]

Table with columns: Street Name, Approach, Movement, Control, Rights, Lanes. Rows for North Bound, South Bound, East Bound, West Bound.

Table with columns: Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, FinalVolume.

Table with columns: Critical Gap Module, Critical Gp, FollowUpTim.

Table with columns: Capacity Module, Cnflict Vol, Potent Cap., Move Cap., Volume/Cap.

Table with columns: Level Of Service Module, 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

Note: Queue reported is the number of cars per lane.

Level of Service Computation Report  
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #4 Crown Valley Pkwy/Lumeria Ln

Average Delay (sec/veh): 0.2 Worst Case Level Of Service: D[ 33.9]

Table with columns: Street Name, Approach, Movement, Control, Rights, Lanes. Rows for North Bound, South Bound, East Bound, West Bound.

Table with columns: Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, FinalVolume.

Table with columns: Critical Gap Module, Critical Gp, FollowUpTim.

Table with columns: Capacity Module, Cnflict Vol, Potent Cap., Move Cap., Volume/Cap.

Table with columns: Level Of Service Module, 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 Crown Valley Pkwy/Pacific Coast Hwy

Cycle (sec): 100 Critical Vol./Cap.(X): 0.707
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 38 Level Of Service: C

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, Y+R, Lanes. Rows include Crown Valley Pkwy and Pacific Coast Hwy with North, South, East, and West bounds.

Volume Module table showing Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume, OvlAdjVol.

Saturation Flow Module table showing Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table showing Vol/Sat, OvlAdjV/S, Crit Moves.



Level Of Service Computation Report  
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #1 Crown Valley Pkwy/Camino Del Avion  
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.475  
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx  
Optimal Cycle: 23 Level Of Service: A  
\*\*\*\*\*

Street Name: Crown Valley Pkwy Camino Del Avion  
Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R  
Control: Protected Protected Protected Protected  
Rights: Include Include Include Include  
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0  
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0  
Lanes: 1 0 3 0 1 1 0 2 0 1 1 0 1 0 1 2 0 1 0 1

Volume Module:  
Base Vol: 87 674 211 210 751 5 13 43 81 151 61 165  
Growth Adj: 1.11 1.11 1.11 1.11 1.11 1.11 1.11 1.11 1.11 1.11 1.11 1.11  
Initial Bse: 97 748 234 233 834 6 14 48 90 168 68 183  
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
PasserByVol: 0 19 0 0 24 0 0 0 0 0 0 0  
Initial Fut: 97 767 234 233 858 6 14 48 90 168 68 183  
User 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  
PHF 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  
PHF Volume: 97 767 234 233 858 6 14 48 90 168 68 183  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 97 767 234 233 858 6 14 48 90 168 68 183  
PCE 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  
MLF 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  
FinalVolume: 97 767 234 233 858 6 14 48 90 168 68 183

Saturation Flow Module:  
Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700  
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Lanes: 1.00 3.00 1.00 1.00 2.00 1.00 1.00 1.00 1.00 2.00 1.00 1.00  
Final Sat.: 1700 5100 1700 1700 3400 1700 1700 1700 1700 3400 1700 1700

Capacity Analysis Module:  
Vol/Sat: 0.06 0.15 0.14 0.14 0.25 0.00 0.01 0.03 0.05 0.05 0.04 0.11  
Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\* \*\*\*\*

\*\*\*\*\*

Level Of Service Computation Report  
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #2 Crown Valley Pkwy/Sea Island Dr-Church Dwy  
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.486  
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx  
Optimal Cycle: 23 Level Of Service: A  
\*\*\*\*\*

Street Name: Crown Valley Pkwy Sea Island Dr-Church Dwy  
Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R  
Control: Protected Protected Permitted Permitted  
Rights: Include Include Include Include  
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0  
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0  
Lanes: 1 0 2 0 1 1 0 2 0 1 1 0 0 1 0 0 0 0 1 0 0

Volume Module:  
Base Vol: 33 797 6 22 943 40 32 1 20 44 3 94  
Growth Adj: 1.00 1.11 1.00 1.00 1.11 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Initial Bse: 33 885 6 22 1047 40 32 1 20 44 3 94  
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
PasserByVol: 0 19 0 0 24 0 0 0 0 0 0 0  
Initial Fut: 33 904 6 22 1071 40 32 1 20 44 3 94  
User 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  
PHF 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  
PHF Volume: 33 904 6 22 1071 40 32 1 20 44 3 94  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 33 904 6 22 1071 40 32 1 20 44 3 94  
PCE 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  
MLF 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  
FinalVolume: 33 904 6 22 1071 40 32 1 20 44 3 94

Saturation Flow Module:  
Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700  
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 1.00 0.05 0.95 0.31 0.02 0.67  
Final Sat.: 1700 3400 1700 1700 3400 1700 1700 81 1619 530 36 1133

Capacity Analysis Module:  
Vol/Sat: 0.02 0.27 0.00 0.01 0.31 0.02 0.02 0.01 0.01 0.03 0.08 0.08  
Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\* \*\*\*\*

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Level of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #3 Crown Valley Pkwy/Church Dwy

Average Delay (sec/veh): 0.4 Worst Case Level of Service: B[ 12.1]

Table with columns: Street Name, Approach, Movement, Control, Rights, Lanes. Rows for North Bound, South Bound, East Bound, West Bound.

Table with columns: Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, FinalVolume.

Table with columns: Critical Gap Module, Critical Gp, FollowUpTim.

Table with columns: Capacity Module, Cnflict Vol, Potent Cap., Move Cap., Volume/Cap.

Table with columns: Level of Service Module, 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

Note: Queue reported is the number of cars per lane.

Level of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #4 Crown Valley Pkwy/Lumeria Ln

Average Delay (sec/veh): 0.1 Worst Case Level of Service: B[ 11.3]

Table with columns: Street Name, Approach, Movement, Control, Rights, Lanes. Rows for North Bound, South Bound, East Bound, West Bound.

Table with columns: Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, FinalVolume.

Table with columns: Critical Gap Module, Critical Gp, FollowUpTim.

Table with columns: Capacity Module, Cnflict Vol, Potent Cap., Move Cap., Volume/Cap.

Table with columns: Level of Service Module, 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 Crown Valley Pkwy/Pacific Coast Hwy

Cycle (sec): 100 Critical Vol./Cap.(X): 0.647
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 32 Level Of Service: B

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, Y+R, Lanes. Rows include Crown Valley Pkwy and Pacific Coast Hwy with North, South, East, and West bounds.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume, OvlAdjVol.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with columns for Vol/Sat, OvlAdjV/S, Crit Moves.

Level Of Service Computation Report  
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #1 Crown Valley Pkwy/Camino Del Avion  
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.499  
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx  
Optimal Cycle: 24 Level Of Service: A

Street Name: Crown Valley Pkwy Camino Del Avion  
Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R  
Control: Protected Protected Protected Protected  
Rights: Include Include Include Include  
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0  
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0  
Lanes: 1 0 3 0 1 1 0 2 0 1 1 0 1 0 1 2 0 1 0 1

Volume Module:  
Base Vol: 47 615 102 129 792 14 4 36 94 260 56 203  
Growth Adj: 1.13 1.13 1.13 1.13 1.13 1.13 1.13 1.13 1.13 1.13 1.13 1.13  
Initial Bse: 53 695 115 146 895 16 5 41 106 294 63 229  
Added Vol: 0 0 0 0 5 0 0 0 0 1 0 0 0  
PasserByVol: 0 12 0 0 12 0 0 0 0 0 0 0 0  
Initial Fut: 53 707 115 146 912 16 5 41 106 295 63 229  
User 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  
PHF 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  
PHF Volume: 53 707 115 146 912 16 5 41 106 295 63 229  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 53 707 115 146 912 16 5 41 106 295 63 229  
PCE 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  
MLF 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  
FinalVolume: 53 707 115 146 912 16 5 41 106 295 63 229

Saturation Flow Module:  
Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700  
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Lanes: 1.00 3.00 1.00 1.00 2.00 1.00 1.00 1.00 1.00 2.00 1.00 1.00  
Final Sat.: 1700 5100 1700 1700 3400 1700 1700 1700 1700 3400 1700 1700

Capacity Analysis Module:  
Vol/Sat: 0.03 0.14 0.07 0.09 0.27 0.01 0.00 0.02 0.06 0.09 0.04 0.13  
Crit Moves: \*\*\*\*

\*\*\*\*\*

Level Of Service Computation Report  
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #2 Crown Valley Pkwy/Sea Island Dr-Church Dwy  
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.450  
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx  
Optimal Cycle: 22 Level Of Service: A

Street Name: Crown Valley Pkwy Sea Island Dr-Church Dwy  
Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R  
Control: Protected Protected Permitted Permitted  
Rights: Include Include Include Include  
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0  
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0  
Lanes: 1 0 2 0 1 1 0 2 0 1 1 0 0 1 0 1 0 0 1 0

Volume Module:  
Base Vol: 18 706 3 48 1072 43 44 3 30 3 1 5  
Growth Adj: 1.00 1.13 1.00 1.00 1.13 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Initial Bse: 18 798 3 48 1211 43 44 3 30 3 1 5  
Added Vol: 0 0 0 7 0 0 0 0 0 0 0 0 0  
PasserByVol: 0 12 0 0 12 0 0 0 0 0 0 0 0  
Initial Fut: 18 810 3 55 1223 43 44 3 30 3 1 5  
User 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  
PHF 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  
PHF Volume: 18 810 3 55 1223 43 44 3 30 3 1 5  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 18 810 3 55 1223 43 44 3 30 3 1 5  
PCE 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  
MLF 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  
FinalVolume: 18 810 3 55 1223 43 44 3 30 3 1 5

Saturation Flow Module:  
Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700  
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 1.00 0.09 0.91 1.00 0.17 0.83  
Final Sat.: 1700 3400 1700 1700 3400 1700 1700 155 1545 1700 283 1417

Capacity Analysis Module:  
Vol/Sat: 0.01 0.24 0.00 0.03 0.36 0.03 0.03 0.02 0.02 0.00 0.00 0.00  
Crit Moves: \*\*\*\*

\*\*\*\*\*

Level of Service Computation Report  
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #3 Crown Valley Pkwy/Church Dwy

Average Delay (sec/veh): 0.0 Worst Case Level of Service: A[ 0.0]

Table with columns for Street Name, Approach, Movement, Control, Rights, Lanes, Volume Module, Critical Gap Module, Capacity Module, and Level of Service Module.

Table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, FinalVolume.

Table with columns for Critical Gap Module, FollowUpTim.

Table with columns for Capacity Module, Cnflct Vol, Potent Cap., Move Cap., Volume/Cap.

Table with columns for Level of Service Module, 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

Note: Queue reported is the number of cars per lane.

Level of Service Computation Report  
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #4 Crown Valley Pkwy/Lumeria Ln

Average Delay (sec/veh): 0.1 Worst Case Level of Service: C[ 22.0]

Table with columns for Street Name, Approach, Movement, Control, Rights, Lanes, Volume Module, Critical Gap Module, Capacity Module, and Level of Service Module.

Table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, FinalVolume.

Table with columns for Critical Gap Module, FollowUpTim.

Table with columns for Capacity Module, Cnflct Vol, Potent Cap., Move Cap., Volume/Cap.

Table with columns for Level of Service Module, 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*
Intersection #5 Crown Valley Pkwy/Pacific Coast Hwy
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.676
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 35 Level Of Service: B
\*\*\*\*\*

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, Y+R, Lanes. Rows include Crown Valley Pkwy and Pacific Coast Hwy with North, South, East, and West bounds.

Volume Module: Table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume, OvlAdjVol.

Saturation Flow Module: Table with columns for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Table with columns for Vol/Sat, OvlAdjV/S, Crit Moves.

Level Of Service Computation Report  
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #1 Crown Valley Pkwy/Camino Del Avion  
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.548  
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx  
Optimal Cycle: 26 Level Of Service: A  
\*\*\*\*\*

Street Name: Crown Valley Pkwy Camino Del Avion  
Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R  
Control: Protected Protected Protected Protected  
Rights: Include Include Include Include  
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0  
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0  
Lanes: 1 0 3 0 1 1 0 2 0 1 1 0 1 0 1 1

Volume Module:  
Base Vol: 62 818 206 301 790 9 13 72 98 140 83 133  
Growth Adj: 1.13 1.13 1.13 1.13 1.13 1.13 1.13 1.13 1.13 1.13 1.13 1.13  
Initial Bse: 70 924 233 340 893 10 15 81 111 158 94 150  
Added Vol: 1 8 2 0 0 0 0 0 0 0 0 0  
PasserByVol: 0 19 0 0 24 0 0 0 0 0 0 0  
Initial Fut: 71 951 235 340 917 10 15 81 111 158 94 150  
User 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  
PHF 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  
PHF Volume: 71 951 235 340 917 10 15 81 111 158 94 150  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 71 951 235 340 917 10 15 81 111 158 94 150  
PCE 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  
MLF 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  
FinalVolume: 71 951 235 340 917 10 15 81 111 158 94 150

Saturation Flow Module:  
Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700  
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Lanes: 1.00 3.00 1.00 1.00 2.00 1.00 1.00 1.00 1.00 2.00 1.00 1.00  
Final Sat.: 1700 5100 1700 1700 3400 1700 1700 1700 1700 3400 1700 1700

Capacity Analysis Module:  
Vol/Sat: 0.04 0.19 0.14 0.20 0.27 0.01 0.01 0.05 0.07 0.05 0.06 0.09  
Crit Moves: \*\*\*\*

\*\*\*\*\*

Level Of Service Computation Report  
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #2 Crown Valley Pkwy/Sea Island Dr-Church Dwy  
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.433  
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx  
Optimal Cycle: 21 Level Of Service: A  
\*\*\*\*\*

Street Name: Crown Valley Pkwy Sea Island Dr-Church Dwy  
Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R  
Control: Protected Protected Permitted Permitted  
Rights: Include Include Include Include  
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0  
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0  
Lanes: 1 0 2 0 1 1 0 2 0 1 1 0 0 1 0 1 0

Volume Module:  
Base Vol: 26 1015 2 16 993 47 42 0 27 8 0 6  
Growth Adj: 1.00 1.13 1.00 1.00 1.13 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Initial Bse: 26 1147 2 16 1122 47 42 0 27 8 0 6  
Added Vol: 0 7 0 0 0 0 0 0 0 0 7 0 4  
PasserByVol: 0 19 0 0 24 0 0 0 0 0 0 0  
Initial Fut: 26 1173 2 16 1146 47 42 0 27 15 0 10  
User 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  
PHF 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  
PHF Volume: 26 1173 2 16 1146 47 42 0 27 15 0 10  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 26 1173 2 16 1146 47 42 0 27 15 0 10  
PCE 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  
MLF 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  
FinalVolume: 26 1173 2 16 1146 47 42 0 27 15 0 10

Saturation Flow Module:  
Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700  
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 1.00 0.00 1.00 1.00 0.00 1.00  
Final Sat.: 1700 3400 1700 1700 3400 1700 1700 0 1700 1700 0 1700

Capacity Analysis Module:  
Vol/Sat: 0.02 0.34 0.00 0.01 0.34 0.03 0.02 0.00 0.02 0.01 0.00 0.01  
Crit Moves: \*\*\*\*

\*\*\*\*\*

Level of Service Computation Report  
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #3 Crown Valley Pkwy/Church Dwy

Average Delay (sec/veh): 0.0 Worst Case Level of Service: B[ 13.2]

Table with columns for Street Name, Approach, Movement, Control, Rights, Lanes, and Volume Module. Rows include North Bound, South Bound, East Bound, and West Bound for Crown Valley Pkwy and Church Dwy.

Table with columns for Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, and FinalVolume. Rows include Crown Valley Pkwy and Church Dwy.

Table with columns for Critical Gap Module, Critical Gp, and FollowUpTim. Rows include Crown Valley Pkwy and Church Dwy.

Table with columns for Capacity Module, Cnflct Vol, Potent Cap., Move Cap., and Volume/Cap. Rows include Crown Valley Pkwy and Church Dwy.

Table with columns for Level of Service Module, 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS. Rows include Crown Valley Pkwy and Church Dwy.

Note: Queue reported is the number of cars per lane.

Level of Service Computation Report  
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #4 Crown Valley Pkwy/Lumeria Ln

Average Delay (sec/veh): 0.2 Worst Case Level of Service: D[ 34.0]

Table with columns for Street Name, Approach, Movement, Control, Rights, Lanes, and Volume Module. Rows include North Bound, South Bound, East Bound, and West Bound for Crown Valley Pkwy and Lumeria Ln.

Table with columns for Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, and FinalVolume. Rows include Crown Valley Pkwy and Lumeria Ln.

Table with columns for Critical Gap Module, Critical Gp, and FollowUpTim. Rows include Crown Valley Pkwy and Lumeria Ln.

Table with columns for Capacity Module, Cnflct Vol, Potent Cap., Move Cap., and Volume/Cap. Rows include Crown Valley Pkwy and Lumeria Ln.

Table with columns for Level of Service Module, 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS. Rows include Crown Valley Pkwy and Lumeria Ln.

Note: Queue reported is the number of cars per lane.



Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*
Intersection #5 Crown Valley Pkwy/Pacific Coast Hwy
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.708
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 38 Level Of Service: C
\*\*\*\*\*

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, Y+R, Lanes. Rows include Crown Valley Pkwy and Pacific Coast Hwy with North, South, East, and West bounds.

Volume Module: Table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume, OvlAdjVol.

Saturation Flow Module: Table with columns for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Table with columns for Vol/Sat, OvlAdjV/S, Crit Moves.

-----  
Level Of Service Computation Report  
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)  
\*\*\*\*\*  
Intersection #1 Crown Valley Pkwy/Camino Del Avion  
\*\*\*\*\*  
Cycle (sec): 100 Critical Vol./Cap.(X): 0.484  
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx  
Optimal Cycle: 23 Level Of Service: A  
\*\*\*\*\*  
Street Name: Crown Valley Pkwy Camino Del Avion  
Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R  
-----  
Control: Protected Protected Protected Protected  
Rights: Include Include Include Include  
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0  
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0  
Lanes: 1 0 3 0 1 1 0 2 0 1 1 0 1 0 1  
-----  
Volume Module:  
Base Vol: 87 674 211 210 751 5 13 43 81 151 61 165  
Growth Adj: 1.11 1.11 1.11 1.11 1.11 1.11 1.11 1.11 1.11 1.11 1.11 1.11  
Initial Bse: 97 748 234 233 834 6 14 48 90 168 68 183  
Added Vol: 2 22 6 0 25 0 0 0 2 7 0 0  
PasserByVol: 0 19 0 0 24 0 0 0 0 0 0 0  
Initial Fut: 99 789 240 233 883 6 14 48 92 175 68 183  
User 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  
PHF 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  
PHF Volume: 99 789 240 233 883 6 14 48 92 175 68 183  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 99 789 240 233 883 6 14 48 92 175 68 183  
PCE 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  
MLF 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  
FinalVolume: 99 789 240 233 883 6 14 48 92 175 68 183  
-----  
Saturation Flow Module:  
Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700  
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Lanes: 1.00 3.00 1.00 1.00 2.00 1.00 1.00 1.00 1.00 2.00 1.00 1.00  
Final Sat.: 1700 5100 1700 1700 3400 1700 1700 1700 1700 3400 1700 1700  
-----  
Capacity Analysis Module:  
Vol/Sat: 0.06 0.15 0.14 0.14 0.26 0.00 0.01 0.03 0.05 0.05 0.04 0.11  
Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\* \*\*\*\*  
\*\*\*\*\*

-----  
Level Of Service Computation Report  
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)  
\*\*\*\*\*  
Intersection #2 Crown Valley Pkwy/Sea Island Dr-Church Dwy  
\*\*\*\*\*  
Cycle (sec): 100 Critical Vol./Cap.(X): 0.467  
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx  
Optimal Cycle: 22 Level Of Service: A  
\*\*\*\*\*  
Street Name: Crown Valley Pkwy Sea Island Dr-Church Dwy  
Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R  
-----  
Control: Protected Protected Permitted Permitted  
Rights: Include Include Include Include  
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0  
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0  
Lanes: 1 0 2 0 1 1 0 2 0 1 1 0 0 1 0 1 0 1 0  
-----  
Volume Module:  
Base Vol: 33 797 6 22 943 40 32 1 20 44 3 94  
Growth Adj: 1.00 1.11 1.00 1.00 1.11 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Initial Bse: 33 885 6 22 1047 40 32 1 20 44 3 94  
Added Vol: 0 19 2 34 0 0 0 0 1 0 19 1 10  
PasserByVol: 0 19 0 0 24 0 0 0 0 0 0 0 0  
Initial Fut: 33 923 8 56 1071 40 32 2 20 63 4 104  
User 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  
PHF 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  
PHF Volume: 33 923 8 56 1071 40 32 2 20 63 4 104  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 33 923 8 56 1071 40 32 2 20 63 4 104  
PCE 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  
MLF 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  
FinalVolume: 33 923 8 56 1071 40 32 2 20 63 4 104  
-----  
Saturation Flow Module:  
Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700  
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 1.00 0.09 0.91 1.00 0.04 0.96  
Final Sat.: 1700 3400 1700 1700 3400 1700 1700 155 1545 1700 63 1637  
-----  
Capacity Analysis Module:  
Vol/Sat: 0.02 0.27 0.00 0.03 0.31 0.02 0.02 0.01 0.01 0.04 0.06 0.06  
Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\* \*\*\*\*  
\*\*\*\*\*

Level of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #3 Crown Valley Pkwy/Church Dwy

Average Delay (sec/veh): 0.5 Worst Case Level of Service: B[ 12.6]

Table with columns for Street Name, Approach, Movement, Control, Rights, Lanes, Volume Module, Critical Gap Module, Capacity Module, and Level of Service Module.

Table with columns for Volume Module, Critical Gap Module, Capacity Module, and Level of Service Module.

Table with columns for Capacity Module and Level of Service Module.

Table with columns for Level of Service Module.

Table with columns for Level of Service Module.

Note: Queue reported is the number of cars per lane.

Level of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #4 Crown Valley Pkwy/Lumeria Ln

Average Delay (sec/veh): 0.1 Worst Case Level of Service: B[ 11.5]

Table with columns for Street Name, Approach, Movement, Control, Rights, Lanes, Volume Module, Critical Gap Module, Capacity Module, and Level of Service Module.

Table with columns for Volume Module, Critical Gap Module, Capacity Module, and Level of Service Module.

Table with columns for Capacity Module and Level of Service Module.

Table with columns for Level of Service Module.

Table with columns for Level of Service Module.

Note: Queue reported is the number of cars per lane.

```

-----
Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #5 Crown Valley Pkwy/Pacific Coast Hwy
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      0.653
Loss Time (sec):   5           Average Delay (sec/veh):    xxxxxx
Optimal Cycle:    33           Level Of Service:         B
*****
Street Name:      Crown Valley Pkwy          Pacific Coast Hwy
Approach:         North Bound          South Bound          East Bound          West Bound
Movement:         L - T - R          L - T - R          L - T - R          L - T - R
-----|-----|-----|-----|
Control:          Split Phase          Split Phase          Protected          Protected
Rights:           Include             Ovl                 Include             Ovl
Min. Green:       0 0 0              0 0 0              0 0 0              0 0 0
Y+R:              4.0 4.0 4.0        4.0 4.0 4.0        4.0 4.0 4.0        4.0 4.0 4.0
Lanes:            0 1 0 1 0          1 1 0 0 2          2 0 1 1 0          1 0 2 0 1
-----|-----|-----|-----|
Volume Module:
Base Vol:         1 25 19           309 33 507         428 634 14         27 814 227
Growth Adj:      1.11 1.11 1.11   1.11 1.11 1.11   1.11 1.11 1.11   1.11 1.11 1.11
Initial Bse:     1 28 21           343 37 563         475 704 16         30 904 252
Added Vol:       0 1 0              6 0 12             14 0 0              0 0 0 7
PasserByVol:    0 0 0              24 0 0             0 193 0             0 197 19
Initial Fut:     1 29 21           373 37 575         489 897 16         30 1101 278
User 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
PHF 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
PHF Volume:      1 29 21           373 37 575         489 897 16         30 1101 278
Reduct Vol:      0 0 0              0 0 0              0 0 0              0 0 0 0
Reduced Vol:    1 29 21           373 37 575         489 897 16         30 1101 278
PCE 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
MLF 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
FinalVolume:    1 29 21           373 37 575         489 897 16         30 1101 278
OvlAdjVol:       86
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:        1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
Adjustment:      1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
Lanes:           0.04 1.13 0.83   1.82 0.18 2.00   2.00 1.97 0.03   1.00 2.00 1.00
Final Sat.:      74 1919 1407   3096 304 3400   3400 3342 58     1700 3400 1700
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:         0.01 0.01 0.01   0.12 0.12 0.17   0.14 0.27 0.27   0.02 0.32 0.16
OvlAdjV/S:      0.03
Crit Moves:     ****              ****              ****              ****
*****

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**APPENDIX E**

**EXISTING AND PROPOSED  
CHURCH SCHEDULES AND ATTENDANCE**

**South Shores Church - Schedule and Attendance**  
(Based on information transmitted from G.G. Kohlhaugen to the City of Dana Point on December 6, 2013)

## Existing (September 2012 and April 2014)

| Day/Time                             | Activity                          | Attendance | Notes  |         | Peak Hour /<br>Peak Period | Attendance | Calculation         |
|--------------------------------------|-----------------------------------|------------|--|---------|----------------------------|------------|---------------------|
| <b>Sunday (April 27, 2014)</b>       |                                   |            |  |         |                            |            |                     |
| 8:15 – 9:15                          | 1st Service                       | 128        | 73 attendees and 55 choir members                        | Trips   | 10:30-11:30 am             | 580        | 344+35-100+301      |
| 9:30 – 10:30                         | 2nd Service                       | 344        | 276 attendees, 55 choir members, and 13 staff/volunteers |         |                            |            |                     |
| 9:30 – 10:30                         | Bible Study                       | 35         |  | Parking | 10:15-10:30 am             | 379        | 344+35              |
| 10:45 – 11:45 (and 12:00)            | Bible Studies                     | 100        | 2 groups, from 2nd Service                               |         | 11:45 am-12:15 pm          | 401        | 100+301             |
| 11:00 – 12:00                        | 3rd Service                       | 301        | 281 attendees and 20 staff                               |         |                            |            |                     |
| 6:00 – 7:30 pm                       | Remix Service                     | 48         | 45 adults and 3 staff                                    |         |                            |            |                     |
| <b>Wednesday (April 30, 2014)</b>    |                                   |            |  |         |                            |            |                     |
| 8:00 – 5:00                          | Staff                             | 40         | 12 full-time, 12 part-time, 16 volunteers                | Parking | 9:45-10:00 am              | 225        | 40+185 (Staff+WBSF) |
| 9:00 – 2:00                          | Preschool/Kinder                  | 86         |  |         |                            |            |                     |
| 9:00 – 11:15                         | WBSF                              | 185        | No summer schedule, discontinued during construction     |         |                            |            |                     |
| 4:00 – 5:00 pm                       | Intern Meeting                    | 6          |  |         |                            |            |                     |
| 6:30 – 8:00 pm                       | Evening Service                   | 35         | 49 children, infants through 5th grade                   |         |                            |            |                     |
| 7:00 – 9:00 pm                       | Choir Rehearsal                   | 60         |  |         |                            |            |                     |
| 7:00 – 9:00 pm                       | The Ride (Middle/Jr. High School) | 30         |  |         |                            |            |                     |
| <b>Thursday (September 20, 2012)</b> |                                   |            |  |         |                            |            |                     |
| 8:00 – 5:00                          | Staff                             | 40         | 12 full-time, 12 part-time, 16 volunteers                | Trips   | 8:00-9:00 am               | 40         | Staff               |
| 9:00 – 2:00                          | Preschool/Kinder                  | 86         |  |         |                            |            |                     |
| 6:45 – 8:00                          | Men's Group                       | 10         | 2 Thursdays/month - No Summer Schedule                   |         | 4:00-5:00 pm               | 70         | 40+30 (Staff+Grief) |
| 10:00 – 11:30                        | Women's Bible Study               | 15         | No summer schedule                                       |         |                            |            |                     |
| 2:00 – 4:00 pm                       | Grief Share                       | 30         |  |         |                            |            |                     |
| 6:30 – 8:30 pm                       | WINGS                             | 18         | 3x/year for 10 weeks = 30 weeks per year                 |         |                            |            |                     |
| 7:00 – 9:00 pm                       | CORE                              | 85         |  |         |                            |            |                     |

## Master Plan Completion

| Day/Time         | Activity                          | Forecast Attendance | Notes                                     |         | Peak Hour /<br>Peak Period | Attendance | Calculation         |
|------------------|-----------------------------------|---------------------|---|---------|----------------------------|------------|---------------------|
| <b>Sunday</b>    |                                   |                     |   |         |                            |            |                     |
| 8:15 – 9:15      | 1st Service                       | 171                 |   | Trips   | 10:30-11:30 am             | 738        | 399+41-114+412      |
| 9:30 – 10:30     | 2nd Service                       | 399                 |   |         |                            |            |                     |
| 9:30 – 10:30     | Bible Study                       | 41                  |   | Parking | 10:15-10:30 am             | 440        | 399+41              |
| 10:45 – 12:00    | Bible Studies                     | 114                 | 2 groups, from 2nd Service                |         | 11:45 am-12:15 pm          | 526        | 114+412             |
| 11:00 – 12:00    | 3rd Service                       | 412                 |   |         |                            |            |                     |
| 6:30 – 8:00 pm   | Remix Service                     | 62                  |   |         |                            |            |                     |
| <b>Wednesday</b> |                                   |                     |   |         |                            |            |                     |
| 8:00 – 5:00      | Staff                             | 52                  | 16 full-time, 16 part-time, 20 volunteers | Parking | 9:45-10:00 am              | 388        | 52+336 (Staff+WBSF) |
| 9:00 – 2:00      | Preschool/Kinder                  | 86                  |   |         |                            |            |                     |
| 9:00 – 11:15     | WBSF                              | 336                 | No summer schedule                        |         |                            |            |                     |
| 4:00 – 5:00 pm   | Intern Meeting                    | 11                  |   |         |                            |            |                     |
| 6:30 – 8:00 pm   | Evening Service                   | 41                  |   |         |                            |            |                     |
| 7:00 – 9:00 pm   | Choir Rehearsal                   | 68                  |   |         |                            |            |                     |
| 7:00 – 9:00 pm   | The Ride (Middle/Jr. High School) | 36                  |   |         |                            |            |                     |
| <b>Thursday</b>  |                                   |                     |   |         |                            |            |                     |
| 8:00 – 5:00      | Staff                             | 52                  | 16 full-time, 16 part-time, 20 volunteers | Trips   | 8:00-9:00 am               | 52         | Staff               |
| 9:00 – 2:00      | Preschool/Kinder                  | 86                  |   |         |                            |            |                     |
| 6:45 – 8:00      | Men's Group                       | 15                  | 2 Thursdays/month - No Summer Schedule    |         | 4:00-5:00 pm               | 88         | 52+36 (Staff+Grief) |
| 10:00 – 11:30    | Women's Bible Study               | 20                  | No summer schedule                        |         |                            |            |                     |
| 2:00 – 4:00 pm   | Grief Share                       | 36                  |   |         |                            |            |                     |
| 6:30 – 8:30 pm   | WINGS                             | 24                  | 3x/year for 10 weeks = 30 weeks per year  |         |                            |            |                     |
| 7:00 – 9:00 pm   | CORE                              | 98                  |   |         |                            |            |                     |

## Master Plan - Existing

| Day/Time         | Activity                          | Attendance Increase | Notes                                    |         | Peak Hour /<br>Peak Period | Attendance | Calculation         |
|------------------|-----------------------------------|---------------------|--|---------|----------------------------|------------|---------------------|
| <b>Sunday</b>    |                                   |                     |  |         |                            |            |                     |
| 8:15 – 9:15      | 1st Service                       | 43                  |  | Trips   | 10:30-11:30 am             | 158        | 55+6-14+111         |
| 9:30 – 10:30     | 2nd Service                       | 55                  |  |         |                            |            |                     |
| 9:30 – 10:30     | Bible Study                       | 6                   |  | Parking | 10:15-10:30 am             | 61         | 55+6                |
| 10:45 – 12:00    | Bible Studies                     | 14                  | 2 groups, from 2nd Service               |         | 11:45 am-12:15 pm          | 125        | 14+111              |
| 11:00 – 12:00    | 3rd Service                       | 111                 |  |         |                            |            |                     |
| 6:30 – 8:00 pm   | Remix Service                     | 14                  |  |         |                            |            |                     |
| <b>Wednesday</b> |                                   |                     |  |         |                            |            |                     |
| 8:00 – 5:00      | Staff                             | 12                  |  | Parking | 9:45-10:00 am              | 163        | 12+151 (Staff+WBSF) |
| 9:00 – 2:00      | Preschool/Kinder                  | 0                   |  |         |                            |            |                     |
| 9:00 – 11:15     | WBSF                              | 151                 | No summer schedule                       |         |                            |            |                     |
| 4:00 – 5:00 pm   | Intern Meeting                    | 5                   |  |         |                            |            |                     |
| 6:30 – 8:00 pm   | Evening Service                   | 6                   |  |         |                            |            |                     |
| 7:00 – 9:00 pm   | Choir Rehearsal                   | 8                   |  |         |                            |            |                     |
| 7:00 – 9:00 pm   | The Ride (Middle/Jr. High School) | 6                   |  |         |                            |            |                     |
| <b>Thursday</b>  |                                   |                     |  |         |                            |            |                     |
| 8:00 – 5:00      | Staff                             | 12                  |  | Trips   | 8:00-9:00 am               | 12         | Staff               |
| 9:00 – 2:00      | Preschool/Kinder                  | 0                   |  |         |                            |            |                     |
| 6:45 – 8:00      | Men's Group                       | 5                   | 2 Thursdays/month - No Summer Schedule   |         | 4:00-5:00 pm               | 18         | 12+6 (Staff+Grief)  |
| 10:00 – 11:30    | Women's Bible Study               | 5                   | No summer schedule                       |         |                            |            |                     |
| 2:00 – 4:00 pm   | Grief Share                       | 6                   |  |         |                            |            |                     |
| 6:30 – 8:30 pm   | WINGS                             | 6                   | 3x/year for 10 weeks = 30 weeks per year |         |                            |            |                     |
| 7:00 – 9:00 pm   | CORE                              | 13                  |  |         |                            |            |                     |

**South Shores Church - Schedule and Attendance**  
 (Based on information transmitted from G.G. Kohlhausen to the City of Dana Point on December 6, 2013)

**Existing**

| Day/Time                  | Activity                          | Attendance | Notes  |         | Peak Hour / Peak Period | Attendance | Calculation         |
|---------------------------|-----------------------------------|------------|--|---------|-------------------------|------------|---------------------|
| <b>Sunday</b>             |                                   |            |  |         |                         |            |                     |
| 8:15 – 9:15               | 1st Service                       | 150        |  | Trips   | 10:30-11:30 am          | 659        | 356+35-100+368      |
| 9:30 – 10:30              | 2nd Service                       | 356        |  |         |                         |            |                     |
| 9:30 – 10:30              | Bible Study                       | 35         |  | Parking | 10:15-10:30 am          | 391        | 356+35              |
| 10:45 – 11:45 (and 12:00) | Bible Studies                     | 100        | 2 groups, from 2nd Service                           |         | 11:45 am-12:15 pm       | 468        | 100+368             |
| 11:00 – 12:00             | 3rd Service                       | 368        |  |         |                         |            |                     |
| 6:00 – 7:30 pm            | Remix Service                     | 55         |  |         |                         |            |                     |
| <b>Wednesday</b>          |                                   |            |  |         |                         |            |                     |
| 8:00 – 5:00               | Staff                             | 40         | 12 full-time, 12 part-time, 16 volunteers            | Parking | 9:45-10:00 am           | 225        | 40+185 (Staff+WBSF) |
| 9:00 – 2:00               | Preschool/Kinder                  | 86         |  |         |                         |            |                     |
| 9:00 – 11:15              | WBSF                              | 185        | No summer schedule, discontinued during construction |         |                         |            |                     |
| 4:00 – 5:00 pm            | Intern Meeting                    | 6          |  |         |                         |            |                     |
| 6:30 – 8:00 pm            | Evening Service                   | 35         | 49 children, infants through 5th grade               |         |                         |            |                     |
| 7:00 – 9:00 pm            | Choir Rehearsal                   | 60         |  |         |                         |            |                     |
| 7:00 – 9:00 pm            | The Ride (Middle/Jr. High School) | 30         |  |         |                         |            |                     |
| <b>Thursday</b>           |                                   |            |  |         |                         |            |                     |
| 8:00 – 5:00               | Staff                             | 40         | 12 full-time, 12 part-time, 16 volunteers            | Trips   | 8:00-9:00 am            | 40         | Staff               |
| 9:00 – 2:00               | Preschool/Kinder                  | 86         |  |         |                         |            |                     |
| 6:45 – 8:00               | Men's Group                       | 10         | 2 Thursdays/month - No Summer Schedule               |         | 4:00-5:00 pm            | 70         | 40+30 (Staff+Grief) |
| 10:00 – 11:30             | Women's Bible Study               | 15         | No summer schedule                                   |         |                         |            |                     |
| 2:00 – 4:00 pm            | Grief Share                       | 30         |  |         |                         |            |                     |
| 6:30 – 8:30 pm            | WINGS                             | 18         | 3x/year for 10 weeks = 30 weeks per year             |         |                         |            |                     |
| 7:00 – 9:00 pm            | CORE                              | 85         |  |         |                         |            |                     |

**Phase 1 Completion**

| Day/Time         | Activity                          | Forecast Attendance | Notes  |         | Peak Hour / Peak Period | Attendance | Calculation         |
|------------------|-----------------------------------|---------------------|--|---------|-------------------------|------------|---------------------|
| <b>Sunday</b>    |                                   |                     |  |         |                         |            |                     |
| 8:15 – 9:15      | 1st Service                       | 150                 |  | Trips   | 10:30-11:30 am          | 659        | 356+35-100+368      |
| 9:30 – 10:30     | 2nd Service                       | 356                 |  |         |                         |            |                     |
| 9:30 – 10:30     | Bible Study                       | 35                  |  | Parking | 10:15-10:30 am          | 391        | 356+35              |
| 10:45 – 12:00    | Bible Studies                     | 100                 | 2 groups, from 2nd Service                     |         | 11:45 am-12:15 pm       | 468        | 100+368             |
| 11:00 – 12:00    | 3rd Service                       | 368                 |  |         |                         |            |                     |
| 6:30 – 8:00 pm   | Remix Service                     | 55                  |  |         |                         |            |                     |
| <b>Wednesday</b> |                                   |                     |  |         |                         |            |                     |
| 8:00 – 5:00      | Staff                             | 40                  |  | Parking | 9:45-10:00 am           | 40         | Staff               |
| 9:00 – 2:00      | Preschool/Kinder                  | 86                  |  |         |                         |            |                     |
| 9:00 – 11:15     | WBSF                              | 0                   | 300 - discontinued during project construction |         |                         |            |                     |
| 4:00 – 5:00 pm   | Intern Meeting                    | 6                   |  |         |                         |            |                     |
| 6:30 – 8:00 pm   | Evening Service                   | 35                  |  |         |                         |            |                     |
| 7:00 – 9:00 pm   | Choir Rehearsal                   | 60                  |  |         |                         |            |                     |
| 7:00 – 9:00 pm   | The Ride (Middle/Jr. High School) | 30                  |  |         |                         |            |                     |
| <b>Thursday</b>  |                                   |                     |  |         |                         |            |                     |
| 8:00 – 5:00      | Staff                             | 40                  |  | Trips   | 8:00-9:00 am            | 40         | Staff               |
| 9:00 – 2:00      | Preschool/Kinder                  | 86                  |  |         |                         |            |                     |
| 6:45 – 8:00      | Men's Group                       | 10                  | 2 Thursdays/month - No Summer Schedule         |         | 4:00-5:00 pm            | 70         | 40+30 (Staff+Grief) |
| 10:00 – 11:30    | Women's Bible Study               | 15                  | No summer schedule                             |         |                         |            |                     |
| 2:00 – 4:00 pm   | Grief Share                       | 30                  |  |         |                         |            |                     |
| 6:30 – 8:30 pm   | WINGS                             | 18                  | 3x/year for 10 weeks = 30 weeks per year       |         |                         |            |                     |
| 7:00 – 9:00 pm   | CORE                              | 85                  |  |         |                         |            |                     |

**Phase 1 - Existing**

| Day/Time         | Activity                          | Attendance Increase | Notes                                    |         | Peak Hour / Peak Period | Attendance | Calculation |
|------------------|-----------------------------------|---------------------|--|---------|-------------------------|------------|-------------|
| <b>Sunday</b>    |                                   |                     |  |         |                         |            |             |
| 8:15 – 9:15      | 1st Service                       | 0                   |  | Trips   | 10:30-11:30 am          | 0          |             |
| 9:30 – 10:30     | 2nd Service                       | 0                   |  |         |                         |            |             |
| 9:30 – 10:30     | Bible Study                       | 0                   |  | Parking | 10:15-10:30 am          | 0          |             |
| 10:45 – 12:00    | Bible Studies                     | 0                   | 2 groups, from 2nd Service               |         | 11:45 am-12:15 pm       | 0          |             |
| 11:00 – 12:00    | 3rd Service                       | 0                   |  |         |                         |            |             |
| 6:30 – 8:00 pm   | Remix Service                     | 0                   |  |         |                         |            |             |
| <b>Wednesday</b> |                                   |                     |  |         |                         |            |             |
| 8:00 – 5:00      | Staff                             | 0                   |  | Parking | 9:45-10:00 am           | 0          |             |
| 9:00 – 2:00      | Preschool/Kinder                  | 0                   |  |         |                         |            |             |
| 9:00 – 11:15     | WBSF                              | 0                   | No summer schedule                       |         |                         |            |             |
| 4:00 – 5:00 pm   | Intern Meeting                    | 0                   |  |         |                         |            |             |
| 6:30 – 8:00 pm   | Evening Service                   | 0                   |  |         |                         |            |             |
| 7:00 – 9:00 pm   | Choir Rehearsal                   | 0                   |  |         |                         |            |             |
| 7:00 – 9:00 pm   | The Ride (Middle/Jr. High School) | 0                   |  |         |                         |            |             |
| <b>Thursday</b>  |                                   |                     |  |         |                         |            |             |
| 8:00 – 5:00      | Staff                             | 0                   |  | Trips   | 8:00-9:00 am            | 0          |             |
| 9:00 – 2:00      | Preschool/Kinder                  | 0                   |  |         |                         |            |             |
| 6:45 – 8:00      | Men's Group                       | 0                   | 2 Thursdays/month - No Summer Schedule   |         | 4:00-5:00 pm            | 0          |             |
| 10:00 – 11:30    | Women's Bible Study               | 0                   | No summer schedule                       |         |                         |            |             |
| 2:00 – 4:00 pm   | Grief Share                       | 0                   |  |         |                         |            |             |
| 6:30 – 8:30 pm   | WINGS                             | 0                   | 3x/year for 10 weeks = 30 weeks per year |         |                         |            |             |
| 7:00 – 9:00 pm   | CORE                              | 0                   |  |         |                         |            |             |

**South Shores Church - Schedule and Attendance**  
(Based on information transmitted from G.G. Kohlhausen to the City of Dana Point on December 6, 2013)

**Existing**

| Day/Time                  | Activity                          | Attendance | Notes  |         | Peak Hour /<br>Peak Period | Attendance | Calculation         |
|---------------------------|-----------------------------------|------------|--|---------|----------------------------|------------|---------------------|
| <b>Sunday</b>             |                                   |            |  |         |                            |            |                     |
| 8:15 – 9:15               | 1st Service                       | 150        |  | Trips   | 10:30-11:30 am             | 659        | 356+35-100+368      |
| 9:30 – 10:30              | 2nd Service                       | 356        |  |         |                            |            |                     |
| 9:30 – 10:30              | Bible Study                       | 35         |  | Parking | 10:15-10:30 am             | 391        | 356+35              |
| 10:45 – 11:45 (and 12:00) | Bible Studies                     | 100        | 2 groups, from 2nd Service                           |         | 11:45 am-12:15 pm          | 468        | 100+368             |
| 11:00 – 12:00             | 3rd Service                       | 368        |  |         |                            |            |                     |
| 6:00 – 7:30 pm            | Remix Service                     | 55         |  |         |                            |            |                     |
| <b>Wednesday</b>          |                                   |            |  |         |                            |            |                     |
| 8:00 – 5:00               | Staff                             | 40         | 12 full-time, 12 part-time, 16 volunteers            | Parking | 9:45-10:00 am              | 225        | 40+185 (Staff+WBSF) |
| 9:00 – 2:00               | Preschool/Kinder                  | 86         |  |         |                            |            |                     |
| 9:00 – 11:15              | WBSF                              | 185        | No summer schedule, discontinued during construction |         |                            |            |                     |
| 4:00 – 5:00 pm            | Intern Meeting                    | 6          |  |         |                            |            |                     |
| 6:30 – 8:00 pm            | Evening Service                   | 35         | 49 children, infants through 5th grade               |         |                            |            |                     |
| 7:00 – 9:00 pm            | Choir Rehearsal                   | 60         |  |         |                            |            |                     |
| 7:00 – 9:00 pm            | The Ride (Middle/Jr. High School) | 30         |  |         |                            |            |                     |
| <b>Thursday</b>           |                                   |            |  |         |                            |            |                     |
| 8:00 – 5:00               | Staff                             | 40         | 12 full-time, 12 part-time, 16 volunteers            | Trips   | 8:00-9:00 am               | 40         | Staff               |
| 9:00 – 2:00               | Preschool/Kinder                  | 86         |  |         |                            |            |                     |
| 6:45 – 8:00               | Men's Group                       | 10         | 2 Thursdays/month - No Summer Schedule               |         | 4:00-5:00 pm               | 70         | 40+30 (Staff+Grief) |
| 10:00 – 11:30             | Women's Bible Study               | 15         | No summer schedule                                   |         |                            |            |                     |
| 2:00 – 4:00 pm            | Grief Share                       | 30         |  |         |                            |            |                     |
| 6:30 – 8:30 pm            | WINGS                             | 18         | 3x/year for 10 weeks = 30 weeks per year             |         |                            |            |                     |
| 7:00 – 9:00 pm            | CORE                              | 85         |  |         |                            |            |                     |

**Phase 2 Completion**

| Day/Time         | Activity                          | Forecast Attendance | Notes  |         | Peak Hour /<br>Peak Period | Attendance | Calculation         |
|------------------|-----------------------------------|---------------------|--|---------|----------------------------|------------|---------------------|
| <b>Sunday</b>    |                                   |                     |  |         |                            |            |                     |
| 8:15 – 9:15      | 1st Service                       | 153                 |  | Trips   | 10:30-11:30 am             | 670        | 362+36-102+374      |
| 9:30 – 10:30     | 2nd Service                       | 362                 |  |         |                            |            |                     |
| 9:30 – 10:30     | Bible Study                       | 36                  |  | Parking | 10:15-10:30 am             | 398        | 362+36              |
| 10:45 – 12:00    | Bible Studies                     | 102                 | 2 groups, from 2nd Service                     |         | 11:45 am-12:15 pm          | 476        | 102+374             |
| 11:00 – 12:00    | 3rd Service                       | 374                 |  |         |                            |            |                     |
| 6:30 – 8:00 pm   | Remix Service                     | 56                  |  |         |                            |            |                     |
| <b>Wednesday</b> |                                   |                     |  |         |                            |            |                     |
| 8:00 – 5:00      | Staff                             | 41                  |  | Parking | 9:45-10:00 am              | 41         | Staff               |
| 9:00 – 2:00      | Preschool/Kinder                  | 86                  |  |         |                            |            |                     |
| 9:00 – 11:15     | WBSF                              | 0                   | 305 - discontinued during project construction |         |                            |            |                     |
| 4:00 – 5:00 pm   | Intern Meeting                    | 7                   |  |         |                            |            |                     |
| 6:30 – 8:00 pm   | Evening Service                   | 36                  |  |         |                            |            |                     |
| 7:00 – 9:00 pm   | Choir Rehearsal                   | 61                  |  |         |                            |            |                     |
| 7:00 – 9:00 pm   | The Ride (Middle/Jr. High School) | 31                  |  |         |                            |            |                     |
| <b>Thursday</b>  |                                   |                     |  |         |                            |            |                     |
| 8:00 – 5:00      | Staff                             | 41                  |  | Trips   | 8:00-9:00 am               | 41         | Staff               |
| 9:00 – 2:00      | Preschool/Kinder                  | 86                  |  |         |                            |            |                     |
| 6:45 – 8:00      | Men's Group                       | 11                  | 2 Thursdays/month - No Summer Schedule         |         | 4:00-5:00 pm               | 72         | 41+31 (Staff+Grief) |
| 10:00 – 11:30    | Women's Bible Study               | 16                  | No summer schedule                             |         |                            |            |                     |
| 2:00 – 4:00 pm   | Grief Share                       | 31                  |  |         |                            |            |                     |
| 6:30 – 8:30 pm   | WINGS                             | 19                  | 3x/year for 10 weeks = 30 weeks per year       |         |                            |            |                     |
| 7:00 – 9:00 pm   | CORE                              | 87                  |  |         |                            |            |                     |

**Phase 2 - Existing**

| Day/Time         | Activity                          | Attendance Increase | Notes                                    |         | Peak Hour /<br>Peak Period | Attendance | Calculation       |
|------------------|-----------------------------------|---------------------|--|---------|----------------------------|------------|-------------------|
| <b>Sunday</b>    |                                   |                     |  |         |                            |            |                   |
| 8:15 – 9:15      | 1st Service                       | 3                   |  | Trips   | 10:30-11:30 am             | 11         | 6+1-2+6           |
| 9:30 – 10:30     | 2nd Service                       | 6                   |  |         |                            |            |                   |
| 9:30 – 10:30     | Bible Study                       | 1                   |  | Parking | 10:15-10:30 am             | 7          | 6+1               |
| 10:45 – 12:00    | Bible Studies                     | 2                   | 2 groups, from 2nd Service               |         | 11:45 am-12:15 pm          | 8          | 2+6               |
| 11:00 – 12:00    | 3rd Service                       | 6                   |  |         |                            |            |                   |
| 6:30 – 8:00 pm   | Remix Service                     | 1                   |  |         |                            |            |                   |
| <b>Wednesday</b> |                                   |                     |  |         |                            |            |                   |
| 8:00 – 5:00      | Staff                             | 1                   |  | Parking | 9:45-10:00 am              | 0          |                   |
| 9:00 – 2:00      | Preschool/Kinder                  | 0                   |  |         |                            |            |                   |
| 9:00 – 11:15     | WBSF                              | 0                   | No summer schedule                       |         |                            |            |                   |
| 4:00 – 5:00 pm   | Intern Meeting                    | 1                   |  |         |                            |            |                   |
| 6:30 – 8:00 pm   | Evening Service                   | 1                   |  |         |                            |            |                   |
| 7:00 – 9:00 pm   | Choir Rehearsal                   | 1                   |  |         |                            |            |                   |
| 7:00 – 9:00 pm   | The Ride (Middle/Jr. High School) | 1                   |  |         |                            |            |                   |
| <b>Thursday</b>  |                                   |                     |  |         |                            |            |                   |
| 8:00 – 5:00      | Staff                             | 1                   |  | Trips   | 8:00-9:00 am               | 1          | Staff             |
| 9:00 – 2:00      | Preschool/Kinder                  | 0                   |  |         |                            |            |                   |
| 6:45 – 8:00      | Men's Group                       | 1                   | 2 Thursdays/month - No Summer Schedule   |         | 4:00-5:00 pm               | 2          | 1+1 (Staff+Grief) |
| 10:00 – 11:30    | Women's Bible Study               | 1                   | No summer schedule                       |         |                            |            |                   |
| 2:00 – 4:00 pm   | Grief Share                       | 1                   |  |         |                            |            |                   |
| 6:30 – 8:30 pm   | WINGS                             | 1                   | 3x/year for 10 weeks = 30 weeks per year |         |                            |            |                   |
| 7:00 – 9:00 pm   | CORE                              | 2                   |  |         |                            |            |                   |



**South Shores Church - Schedule and Attendance**  
(Based on information transmitted from G.G. Kohlhausen to the City of Dana Point on December 6, 2013)

**Existing**

| Day/Time                  | Activity                          | Attendance | Notes  |         | Peak Hour /<br>Peak Period | Attendance | Calculation         |
|---------------------------|-----------------------------------|------------|--|---------|----------------------------|------------|---------------------|
| <b>Sunday</b>             |                                   |            |  |         |                            |            |                     |
| 8:15 – 9:15               | 1st Service                       | 150        |  | Trips   | 10:30-11:30 am             | 659        | 356+35-100+368      |
| 9:30 – 10:30              | 2nd Service                       | 356        |  |         |                            |            |                     |
| 9:30 – 10:30              | Bible Study                       | 35         |  | Parking | 10:15-10:30 am             | 391        | 356+35              |
| 10:45 – 11:45 (and 12:00) | Bible Studies                     | 100        | 2 groups, from 2nd Service                           |         | 11:45 am-12:15 pm          | 468        | 100+368             |
| 11:00 – 12:00             | 3rd Service                       | 368        |  |         |                            |            |                     |
| 6:00 – 7:30 pm            | Remix Service                     | 55         |  |         |                            |            |                     |
| <b>Wednesday</b>          |                                   |            |  |         |                            |            |                     |
| 8:00 – 5:00               | Staff                             | 40         | 12 full-time, 12 part-time, 16 volunteers            | Parking | 9:45-10:00 am              | 225        | 40+185 (Staff+WBSF) |
| 9:00 – 2:00               | Preschool/Kinder                  | 86         |  |         |                            |            |                     |
| 9:00 – 11:15              | WBSF                              | 185        | No summer schedule, discontinued during construction |         |                            |            |                     |
| 4:00 – 5:00 pm            | Intern Meeting                    | 6          |  |         |                            |            |                     |
| 6:30 – 8:00 pm            | Evening Service                   | 35         | 49 children, infants through 5th grade               |         |                            |            |                     |
| 7:00 – 9:00 pm            | Choir Rehearsal                   | 60         |  |         |                            |            |                     |
| 7:00 – 9:00 pm            | The Ride (Middle/Jr. High School) | 30         |  |         |                            |            |                     |
| <b>Thursday</b>           |                                   |            |  |         |                            |            |                     |
| 8:00 – 5:00               | Staff                             | 40         | 12 full-time, 12 part-time, 16 volunteers            | Trips   | 8:00-9:00 am               | 40         | Staff               |
| 9:00 – 2:00               | Preschool/Kinder                  | 86         |  |         |                            |            |                     |
| 6:45 – 8:00               | Men's Group                       | 10         | 2 Thursdays/month - No Summer Schedule               |         | 4:00-5:00 pm               | 70         | 40+30 (Staff+Grief) |
| 10:00 – 11:30             | Women's Bible Study               | 15         | No summer schedule                                   |         |                            |            |                     |
| 2:00 – 4:00 pm            | Grief Share                       | 30         |  |         |                            |            |                     |
| 6:30 – 8:30 pm            | WINGS                             | 18         | 3x/year for 10 weeks = 30 weeks per year             |         |                            |            |                     |
| 7:00 – 9:00 pm            | CORE                              | 85         |  |         |                            |            |                     |

**Phase 3 Completion**

| Day/Time         | Activity                          | Forecast Attendance | Notes  |         | Peak Hour /<br>Peak Period | Attendance | Calculation         |
|------------------|-----------------------------------|---------------------|--|---------|----------------------------|------------|---------------------|
| <b>Sunday</b>    |                                   |                     |  |         |                            |            |                     |
| 8:15 – 9:15      | 1st Service                       | 156                 |  | Trips   | 10:30-11:30 am             | 681        | 368+37-104+380      |
| 9:30 – 10:30     | 2nd Service                       | 368                 |  |         |                            |            |                     |
| 9:30 – 10:30     | Bible Study                       | 37                  |  | Parking | 10:15-10:30 am             | 405        | 368+37              |
| 10:45 – 12:00    | Bible Studies                     | 104                 | 2 groups, from 2nd Service                     |         | 11:45 am-12:15 pm          | 484        | 104+380             |
| 11:00 – 12:00    | 3rd Service                       | 380                 |  |         |                            |            |                     |
| 6:30 – 8:00 pm   | Remix Service                     | 57                  |  |         |                            |            |                     |
| <b>Wednesday</b> |                                   |                     |  |         |                            |            |                     |
| 8:00 – 5:00      | Staff                             | 42                  |  | Parking | 9:45-10:00 am              | 42         | Staff               |
| 9:00 – 2:00      | Preschool/Kinder                  | 86                  |  |         |                            |            |                     |
| 9:00 – 11:15     | WBSF                              | 0                   | 310 - discontinued during project construction |         |                            |            |                     |
| 4:00 – 5:00 pm   | Intern Meeting                    | 8                   |  |         |                            |            |                     |
| 6:30 – 8:00 pm   | Evening Service                   | 37                  |  |         |                            |            |                     |
| 7:00 – 9:00 pm   | Choir Rehearsal                   | 62                  |  |         |                            |            |                     |
| 7:00 – 9:00 pm   | The Ride (Middle/Jr. High School) | 32                  |  |         |                            |            |                     |
| <b>Thursday</b>  |                                   |                     |  |         |                            |            |                     |
| 8:00 – 5:00      | Staff                             | 42                  |  | Trips   | 8:00-9:00 am               | 42         | Staff               |
| 9:00 – 2:00      | Preschool/Kinder                  | 86                  |  |         |                            |            |                     |
| 6:45 – 8:00      | Men's Group                       | 12                  | 2 Thursdays/month - No Summer Schedule         |         | 4:00-5:00 pm               | 74         | 42+32 (Staff+Grief) |
| 10:00 – 11:30    | Women's Bible Study               | 17                  | No summer schedule                             |         |                            |            |                     |
| 2:00 – 4:00 pm   | Grief Share                       | 32                  |  |         |                            |            |                     |
| 6:30 – 8:30 pm   | WINGS                             | 20                  | 3x/year for 10 weeks = 30 weeks per year       |         |                            |            |                     |
| 7:00 – 9:00 pm   | CORE                              | 89                  |  |         |                            |            |                     |

**Phase 3 - Existing**

| Day/Time         | Activity                          | Attendance Increase | Notes                                    |         | Peak Hour /<br>Peak Period | Attendance | Calculation      |
|------------------|-----------------------------------|---------------------|--|---------|----------------------------|------------|------------------|
| <b>Sunday</b>    |                                   |                     |  |         |                            |            |                  |
| 8:15 – 9:15      | 1st Service                       | 6                   |  | Trips   | 10:30-11:30 am             | 22         | 12+2-4+12        |
| 9:30 – 10:30     | 2nd Service                       | 12                  |  |         |                            |            |                  |
| 9:30 – 10:30     | Bible Study                       | 2                   |  | Parking | 10:15-10:30 am             | 14         | 12+2             |
| 10:45 – 12:00    | Bible Studies                     | 4                   | 2 groups, from 2nd Service               |         | 11:45 am-12:15 pm          | 16         | 4+12             |
| 11:00 – 12:00    | 3rd Service                       | 12                  |  |         |                            |            |                  |
| 6:30 – 8:00 pm   | Remix Service                     | 2                   |  |         |                            |            |                  |
| <b>Wednesday</b> |                                   |                     |  |         |                            |            |                  |
| 8:00 – 5:00      | Staff                             | 2                   |  | Parking | 9:45-10:00 am              | 0          |                  |
| 9:00 – 2:00      | Preschool/Kinder                  | 0                   |  |         |                            |            |                  |
| 9:00 – 11:15     | WBSF                              | 0                   | No summer schedule                       |         |                            |            |                  |
| 4:00 – 5:00 pm   | Intern Meeting                    | 2                   |  |         |                            |            |                  |
| 6:30 – 8:00 pm   | Evening Service                   | 2                   |  |         |                            |            |                  |
| 7:00 – 9:00 pm   | Choir Rehearsal                   | 2                   |  |         |                            |            |                  |
| 7:00 – 9:00 pm   | The Ride (Middle/Jr. High School) | 2                   |  |         |                            |            |                  |
| <b>Thursday</b>  |                                   |                     |  |         |                            |            |                  |
| 8:00 – 5:00      | Staff                             | 2                   |  | Trips   | 8:00-9:00 am               | 2          | Staff            |
| 9:00 – 2:00      | Preschool/Kinder                  | 0                   |  |         |                            |            |                  |
| 6:45 – 8:00      | Men's Group                       | 2                   | 2 Thursdays/month - No Summer Schedule   |         | 4:00-5:00 pm               | 4          | 2+ (Staff+Grief) |
| 10:00 – 11:30    | Women's Bible Study               | 2                   | No summer schedule                       |         |                            |            |                  |
| 2:00 – 4:00 pm   | Grief Share                       | 2                   |  |         |                            |            |                  |
| 6:30 – 8:30 pm   | WINGS                             | 2                   | 3x/year for 10 weeks = 30 weeks per year |         |                            |            |                  |
| 7:00 – 9:00 pm   | CORE                              | 4                   |  |         |                            |            |                  |

**South Shores Church - Schedule and Attendance**  
(Based on information transmitted from G.G. Kohlhausen to the City of Dana Point on December 6, 2013)

**Existing**

| Day/Time                  | Activity                          | Attendance | Notes  |         | Peak Hour /<br>Peak Period | Attendance | Calculation         |
|---------------------------|-----------------------------------|------------|--|---------|----------------------------|------------|---------------------|
| <b>Sunday</b>             |                                   |            |  |         |                            |            |                     |
| 8:15 – 9:15               | 1st Service                       | 150        |  | Trips   | 10:30-11:30 am             | 659        | 356+35-100+368      |
| 9:30 – 10:30              | 2nd Service                       | 356        |  |         |                            |            |                     |
| 9:30 – 10:30              | Bible Study                       | 35         |  | Parking | 10:15-10:30 am             | 391        | 356+35              |
| 10:45 – 11:45 (and 12:00) | Bible Studies                     | 100        | 2 groups, from 2nd Service                           |         | 11:45 am-12:15 pm          | 468        | 100+368             |
| 11:00 – 12:00             | 3rd Service                       | 368        |  |         |                            |            |                     |
| 6:00 – 7:30 pm            | Remix Service                     | 55         |  |         |                            |            |                     |
| <b>Wednesday</b>          |                                   |            |  |         |                            |            |                     |
| 8:00 – 5:00               | Staff                             | 40         | 12 full-time, 12 part-time, 16 volunteers            | Parking | 9:45-10:00 am              | 225        | 40+185 (Staff+WBSF) |
| 9:00 – 2:00               | Preschool/Kinder                  | 86         |  |         |                            |            |                     |
| 9:00 – 11:15              | WBSF                              | 185        | No summer schedule, discontinued during construction |         |                            |            |                     |
| 4:00 – 5:00 pm            | Intern Meeting                    | 6          |  |         |                            |            |                     |
| 6:30 – 8:00 pm            | Evening Service                   | 35         | 49 children, infants through 5th grade               |         |                            |            |                     |
| 7:00 – 9:00 pm            | Choir Rehearsal                   | 60         |  |         |                            |            |                     |
| 7:00 – 9:00 pm            | The Ride (Middle/Jr. High School) | 30         |  |         |                            |            |                     |
| <b>Thursday</b>           |                                   |            |  |         |                            |            |                     |
| 8:00 – 5:00               | Staff                             | 40         | 12 full-time, 12 part-time, 16 volunteers            | Trips   | 8:00-9:00 am               | 40         | Staff               |
| 9:00 – 2:00               | Preschool/Kinder                  | 86         |  |         |                            |            |                     |
| 6:45 – 8:00               | Men's Group                       | 10         | 2 Thursdays/month - No Summer Schedule               |         | 4:00-5:00 pm               | 70         | 40+30 (Staff+Grief) |
| 10:00 – 11:30             | Women's Bible Study               | 15         | No summer schedule                                   |         |                            |            |                     |
| 2:00 – 4:00 pm            | Grief Share                       | 30         |  |         |                            |            |                     |
| 6:30 – 8:30 pm            | WINGS                             | 18         | 3x/year for 10 weeks = 30 weeks per year             |         |                            |            |                     |
| 7:00 – 9:00 pm            | CORE                              | 85         |  |         |                            |            |                     |

**Phase 4 Completion**

| Day/Time         | Activity                          | Forecast Attendance | Notes  |         | Peak Hour /<br>Peak Period | Attendance | Calculation         |
|------------------|-----------------------------------|---------------------|--|---------|----------------------------|------------|---------------------|
| <b>Sunday</b>    |                                   |                     |  |         |                            |            |                     |
| 8:15 – 9:15      | 1st Service                       | 159                 |  | Trips   | 10:30-11:30 am             | 692        | 374+38-106+386      |
| 9:30 – 10:30     | 2nd Service                       | 374                 |  |         |                            |            |                     |
| 9:30 – 10:30     | Bible Study                       | 38                  |  | Parking | 10:15-10:30 am             | 412        | 374+38              |
| 10:45 – 12:00    | Bible Studies                     | 106                 | 2 groups, from 2nd Service                     |         | 11:45 am-12:15 pm          | 492        | 106+386             |
| 11:00 – 12:00    | 3rd Service                       | 386                 |  |         |                            |            |                     |
| 6:30 – 8:00 pm   | Remix Service                     | 58                  |  |         |                            |            |                     |
| <b>Wednesday</b> |                                   |                     |  |         |                            |            |                     |
| 8:00 – 5:00      | Staff                             | 43                  |  | Parking | 9:45-10:00 am              | 43         | Staff               |
| 9:00 – 2:00      | Preschool/Kinder                  | 86                  |  |         |                            |            |                     |
| 9:00 – 11:15     | WBSF                              | 0                   | 315 - discontinued during project construction |         |                            |            |                     |
| 4:00 – 5:00 pm   | Intern Meeting                    | 9                   |  |         |                            |            |                     |
| 6:30 – 8:00 pm   | Evening Service                   | 38                  |  |         |                            |            |                     |
| 7:00 – 9:00 pm   | Choir Rehearsal                   | 63                  |  |         |                            |            |                     |
| 7:00 – 9:00 pm   | The Ride (Middle/Jr. High School) | 33                  |  |         |                            |            |                     |
| <b>Thursday</b>  |                                   |                     |  |         |                            |            |                     |
| 8:00 – 5:00      | Staff                             | 43                  |  | Trips   | 8:00-9:00 am               | 43         | Staff               |
| 9:00 – 2:00      | Preschool/Kinder                  | 86                  |  |         |                            |            |                     |
| 6:45 – 8:00      | Men's Group                       | 13                  | 2 Thursdays/month - No Summer Schedule         |         | 4:00-5:00 pm               | 76         | 43+33 (Staff+Grief) |
| 10:00 – 11:30    | Women's Bible Study               | 18                  | No summer schedule                             |         |                            |            |                     |
| 2:00 – 4:00 pm   | Grief Share                       | 33                  |  |         |                            |            |                     |
| 6:30 – 8:30 pm   | WINGS                             | 21                  | 3x/year for 10 weeks = 30 weeks per year       |         |                            |            |                     |
| 7:00 – 9:00 pm   | CORE                              | 91                  |  |         |                            |            |                     |

**Phase 4 - Existing**

| Day/Time         | Activity                          | Attendance Increase | Notes                                    |         | Peak Hour /<br>Peak Period | Attendance | Calculation       |
|------------------|-----------------------------------|---------------------|--|---------|----------------------------|------------|-------------------|
| <b>Sunday</b>    |                                   |                     |  |         |                            |            |                   |
| 8:15 – 9:15      | 1st Service                       | 9                   |  | Trips   | 10:30-11:30 am             | 33         | 18+3-6+18         |
| 9:30 – 10:30     | 2nd Service                       | 18                  |  |         |                            |            |                   |
| 9:30 – 10:30     | Bible Study                       | 3                   |  | Parking | 10:15-10:30 am             | 21         | 18+3              |
| 10:45 – 12:00    | Bible Studies                     | 6                   | 2 groups, from 2nd Service               |         | 11:45 am-12:15 pm          | 24         | 6+18              |
| 11:00 – 12:00    | 3rd Service                       | 18                  |  |         |                            |            |                   |
| 6:30 – 8:00 pm   | Remix Service                     | 3                   |  |         |                            |            |                   |
| <b>Wednesday</b> |                                   |                     |  |         |                            |            |                   |
| 8:00 – 5:00      | Staff                             | 3                   |  | Parking | 9:45-10:00 am              | 0          |                   |
| 9:00 – 2:00      | Preschool/Kinder                  | 0                   |  |         |                            |            |                   |
| 9:00 – 11:15     | WBSF                              | 0                   | No summer schedule                       |         |                            |            |                   |
| 4:00 – 5:00 pm   | Intern Meeting                    | 3                   |  |         |                            |            |                   |
| 6:30 – 8:00 pm   | Evening Service                   | 3                   |  |         |                            |            |                   |
| 7:00 – 9:00 pm   | Choir Rehearsal                   | 3                   |  |         |                            |            |                   |
| 7:00 – 9:00 pm   | The Ride (Middle/Jr. High School) | 3                   |  |         |                            |            |                   |
| <b>Thursday</b>  |                                   |                     |  |         |                            |            |                   |
| 8:00 – 5:00      | Staff                             | 3                   |  | Trips   | 8:00-9:00 am               | 3          | Staff             |
| 9:00 – 2:00      | Preschool/Kinder                  | 0                   |  |         |                            |            |                   |
| 6:45 – 8:00      | Men's Group                       | 3                   | 2 Thursdays/month - No Summer Schedule   |         | 4:00-5:00 pm               | 6          | 3+3 (Staff+Grief) |
| 10:00 – 11:30    | Women's Bible Study               | 3                   | No summer schedule                       |         |                            |            |                   |
| 2:00 – 4:00 pm   | Grief Share                       | 3                   |  |         |                            |            |                   |
| 6:30 – 8:30 pm   | WINGS                             | 3                   | 3x/year for 10 weeks = 30 weeks per year |         |                            |            |                   |
| 7:00 – 9:00 pm   | CORE                              | 6                   |  |         |                            |            |                   |

**South Shores Church - Schedule and Attendance**  
(Based on information transmitted from G.G. Kohlhausen to the City of Dana Point on December 6, 2013)

**Existing**

| Day/Time                  | Activity                          | Attendance | Notes  |         | Peak Hour /<br>Peak Period | Attendance | Calculation         |
|---------------------------|-----------------------------------|------------|--|---------|----------------------------|------------|---------------------|
| <b>Sunday</b>             |                                   |            |  |         |                            |            |                     |
| 8:15 – 9:15               | 1st Service                       | 150        |  | Trips   | 10:30-11:30 am             | 659        | 356+35-100+368      |
| 9:30 – 10:30              | 2nd Service                       | 356        |  |         |                            |            |                     |
| 9:30 – 10:30              | Bible Study                       | 35         |  | Parking | 10:15-10:30 am             | 391        | 356+35              |
| 10:45 – 11:45 (and 12:00) | Bible Studies                     | 100        | 2 groups, from 2nd Service                           |         | 11:45 am-12:15 pm          | 468        | 100+368             |
| 11:00 – 12:00             | 3rd Service                       | 368        |  |         |                            |            |                     |
| 6:00 – 7:30 pm            | Remix Service                     | 55         |  |         |                            |            |                     |
| <b>Wednesday</b>          |                                   |            |  |         |                            |            |                     |
| 8:00 – 5:00               | Staff                             | 40         | 12 full-time, 12 part-time, 16 volunteers            | Parking | 9:45-10:00 am              | 225        | 40+185 (Staff+WBSF) |
| 9:00 – 2:00               | Preschool/Kinder                  | 86         |  |         |                            |            |                     |
| 9:00 – 11:15              | WBSF                              | 185        | No summer schedule, discontinued during construction |         |                            |            |                     |
| 4:00 – 5:00 pm            | Intern Meeting                    | 6          |  |         |                            |            |                     |
| 6:30 – 8:00 pm            | Evening Service                   | 35         | 49 children, infants through 5th grade               |         |                            |            |                     |
| 7:00 – 9:00 pm            | Choir Rehearsal                   | 60         |  |         |                            |            |                     |
| 7:00 – 9:00 pm            | The Ride (Middle/Jr. High School) | 30         |  |         |                            |            |                     |
| <b>Thursday</b>           |                                   |            |  |         |                            |            |                     |
| 8:00 – 5:00               | Staff                             | 40         | 12 full-time, 12 part-time, 16 volunteers            | Trips   | 8:00-9:00 am               | 40         | Staff               |
| 9:00 – 2:00               | Preschool/Kinder                  | 86         |  |         |                            |            |                     |
| 6:45 – 8:00               | Men's Group                       | 10         | 2 Thursdays/month - No Summer Schedule               |         | 4:00-5:00 pm               | 70         | 40+30 (Staff+Grief) |
| 10:00 – 11:30             | Women's Bible Study               | 15         | No summer schedule                                   |         |                            |            |                     |
| 2:00 – 4:00 pm            | Grief Share                       | 30         |  |         |                            |            |                     |
| 6:30 – 8:30 pm            | WINGS                             | 18         | 3x/year for 10 weeks = 30 weeks per year             |         |                            |            |                     |
| 7:00 – 9:00 pm            | CORE                              | 85         |  |         |                            |            |                     |

**Phase 5 Completion**

| Day/Time         | Activity                          | Forecast Attendance | Notes  |         | Peak Hour /<br>Peak Period | Attendance | Calculation         |
|------------------|-----------------------------------|---------------------|--|---------|----------------------------|------------|---------------------|
| <b>Sunday</b>    |                                   |                     |  |         |                            |            |                     |
| 8:15 – 9:15      | 1st Service                       | 162                 |  | Trips   | 10:30-11:30 am             | 703        | 380+39-108+392      |
| 9:30 – 10:30     | 2nd Service                       | 380                 |  |         |                            |            |                     |
| 9:30 – 10:30     | Bible Study                       | 39                  |  | Parking | 10:15-10:30 am             | 419        | 380+39              |
| 10:45 – 12:00    | Bible Studies                     | 108                 | 2 groups, from 2nd Service                     |         | 11:45 am-12:15 pm          | 500        | 108+392             |
| 11:00 – 12:00    | 3rd Service                       | 392                 |  |         |                            |            |                     |
| 6:30 – 8:00 pm   | Remix Service                     | 59                  |  |         |                            |            |                     |
| <b>Wednesday</b> |                                   |                     |  |         |                            |            |                     |
| 8:00 – 5:00      | Staff                             | 44                  |  | Parking | 9:45-10:00 am              | 44         | Staff               |
| 9:00 – 2:00      | Preschool/Kinder                  | 86                  |  |         |                            |            |                     |
| 9:00 – 11:15     | WBSF                              | 0                   | 320 - discontinued during project construction |         |                            |            |                     |
| 4:00 – 5:00 pm   | Intern Meeting                    | 10                  |  |         |                            |            |                     |
| 6:30 – 8:00 pm   | Evening Service                   | 39                  |  |         |                            |            |                     |
| 7:00 – 9:00 pm   | Choir Rehearsal                   | 64                  |  |         |                            |            |                     |
| 7:00 – 9:00 pm   | The Ride (Middle/Jr. High School) | 34                  |  |         |                            |            |                     |
| <b>Thursday</b>  |                                   |                     |  |         |                            |            |                     |
| 8:00 – 5:00      | Staff                             | 44                  |  | Trips   | 8:00-9:00 am               | 44         | Staff               |
| 9:00 – 2:00      | Preschool/Kinder                  | 86                  |  |         |                            |            |                     |
| 6:45 – 8:00      | Men's Group                       | 14                  | 2 Thursdays/month - No Summer Schedule         |         | 4:00-5:00 pm               | 78         | 44+34 (Staff+Grief) |
| 10:00 – 11:30    | Women's Bible Study               | 19                  | No summer schedule                             |         |                            |            |                     |
| 2:00 – 4:00 pm   | Grief Share                       | 34                  |  |         |                            |            |                     |
| 6:30 – 8:30 pm   | WINGS                             | 22                  | 3x/year for 10 weeks = 30 weeks per year       |         |                            |            |                     |
| 7:00 – 9:00 pm   | CORE                              | 93                  |  |         |                            |            |                     |

**Phase 5 - Existing**

| Day/Time         | Activity                          | Attendance Increase | Notes                                    |         | Peak Hour /<br>Peak Period | Attendance | Calculation       |
|------------------|-----------------------------------|---------------------|--|---------|----------------------------|------------|-------------------|
| <b>Sunday</b>    |                                   |                     |  |         |                            |            |                   |
| 8:15 – 9:15      | 1st Service                       | 12                  |  | Trips   | 10:30-11:30 am             | 44         | 24+4-8+24         |
| 9:30 – 10:30     | 2nd Service                       | 24                  |  |         |                            |            |                   |
| 9:30 – 10:30     | Bible Study                       | 4                   |  | Parking | 10:15-10:30 am             | 28         | 24+4              |
| 10:45 – 12:00    | Bible Studies                     | 8                   | 2 groups, from 2nd Service               |         | 11:45 am-12:15 pm          | 32         | 8+24              |
| 11:00 – 12:00    | 3rd Service                       | 24                  |  |         |                            |            |                   |
| 6:30 – 8:00 pm   | Remix Service                     | 4                   |  |         |                            |            |                   |
| <b>Wednesday</b> |                                   |                     |  |         |                            |            |                   |
| 8:00 – 5:00      | Staff                             | 4                   |  | Parking | 9:45-10:00 am              | 0          |                   |
| 9:00 – 2:00      | Preschool/Kinder                  | 0                   |  |         |                            |            |                   |
| 9:00 – 11:15     | WBSF                              | 0                   | No summer schedule                       |         |                            |            |                   |
| 4:00 – 5:00 pm   | Intern Meeting                    | 4                   |  |         |                            |            |                   |
| 6:30 – 8:00 pm   | Evening Service                   | 4                   |  |         |                            |            |                   |
| 7:00 – 9:00 pm   | Choir Rehearsal                   | 4                   |  |         |                            |            |                   |
| 7:00 – 9:00 pm   | The Ride (Middle/Jr. High School) | 4                   |  |         |                            |            |                   |
| <b>Thursday</b>  |                                   |                     |  |         |                            |            |                   |
| 8:00 – 5:00      | Staff                             | 4                   |  | Trips   | 8:00-9:00 am               | 4          | Staff             |
| 9:00 – 2:00      | Preschool/Kinder                  | 0                   |  |         |                            |            |                   |
| 6:45 – 8:00      | Men's Group                       | 4                   | 2 Thursdays/month - No Summer Schedule   |         | 4:00-5:00 pm               | 8          | 4+4 (Staff+Grief) |
| 10:00 – 11:30    | Women's Bible Study               | 4                   | No summer schedule                       |         |                            |            |                   |
| 2:00 – 4:00 pm   | Grief Share                       | 4                   |  |         |                            |            |                   |
| 6:30 – 8:30 pm   | WINGS                             | 4                   | 3x/year for 10 weeks = 30 weeks per year |         |                            |            |                   |
| 7:00 – 9:00 pm   | CORE                              | 8                   |  |         |                            |            |                   |

**APPENDIX F**

**PROJECT DRIVEWAYS QUEUING REPORTS**

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Future Queue Report (cars)  
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| Node | Intersection  | Northbound |      |        | Southbound |      |        | Eastbound |      |        | Westbound |      |        |
|------|---------------|------------|------|--------|------------|------|--------|-----------|------|--------|-----------|------|--------|
|      |               | L          | --   | T -- R | L          | --   | T -- R | L         | --   | T -- R | L         | --   | T -- R |
| #2   | [HCM2k95thQ]: | 1          | 15   | 0      | 4          | 22   | 1      | 3         | 2    | 2      | 0         | 0    | 0      |
| #3   | [2Way95thQ]:  | xxxx       | xxxx | xxxx   | xxxx       | xxxx | xxxx   | xxxx      | xxxx | xxxx   | xxxx      | xxxx | xxxx   |

Level of Service Computation Report  
 2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 Crown Valley Pkwy/Sea Island Dr-Church Dwy  
 Cycle (sec): 120 Critical Vol./Cap.(X): 0.375  
 Loss Time (sec): 12 Average Delay (sec/veh): 18.2  
 Optimal Cycle: 90 Level Of Service: B

| Street Name:              | Crown Valley Pkwy |      |             | Sea Island Dr-Church Dwy |      |            |      |      |      |      |      |      |   |   |   |   |
|---------------------------|-------------------|------|-------------|--------------------------|------|------------|------|------|------|------|------|------|---|---|---|---|
| Approach:                 | North Bound       |      | South Bound | East Bound               |      | West Bound |      |      |      |      |      |      |   |   |   |   |
| Movement:                 | L                 | T    | R           | L                        | T    | R          | L    | T    | R    | L    | T    | R    |   |   |   |   |
| Control:                  | Protected         |      | Protected   | Permitted                |      | Permitted  |      |      |      |      |      |      |   |   |   |   |
| Rights:                   | Include           |      | Include     | Include                  |      | Include    |      |      |      |      |      |      |   |   |   |   |
| Min. Green:               | 6                 | 18   | 18          | 6                        | 18   | 18         | 32   | 32   | 32   | 32   | 32   | 32   |   |   |   |   |
| Y+R:                      | 4.0               | 4.0  | 4.0         | 4.0                      | 4.0  | 4.0        | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  |   |   |   |   |
| Lanes:                    | 1                 | 0    | 2           | 0                        | 1    | 1          | 0    | 0    | 1    | 0    | 0    | 1    | 0 | 0 | 1 | 0 |
| Volume Module:            |                   |      |             |                          |      |            |      |      |      |      |      |      |   |   |   |   |
| Base Vol:                 | 18                | 706  | 3           | 48                       | 1072 | 43         | 44   | 3    | 30   | 3    | 1    | 5    |   |   |   |   |
| Growth 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 |   |   |   |   |
| Initial Bse:              | 18                | 706  | 3           | 48                       | 1072 | 43         | 44   | 3    | 30   | 3    | 1    | 5    |   |   |   |   |
| Added Vol:                | 0                 | 0    | 0           | 7                        | 0    | 0          | 0    | 0    | 0    | 0    | 0    | 0    |   |   |   |   |
| PasserByVol:              | 0                 | 0    | 0           | 0                        | 0    | 0          | 0    | 0    | 0    | 0    | 0    | 0    |   |   |   |   |
| Initial Fut:              | 18                | 706  | 3           | 55                       | 1072 | 43         | 44   | 3    | 30   | 3    | 1    | 5    |   |   |   |   |
| User 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 |   |   |   |   |
| PHF 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 |   |   |   |   |
| PHF Volume:               | 18                | 706  | 3           | 55                       | 1072 | 43         | 44   | 3    | 30   | 3    | 1    | 5    |   |   |   |   |
| Reduct Vol:               | 0                 | 0    | 0           | 0                        | 0    | 0          | 0    | 0    | 0    | 0    | 0    | 0    |   |   |   |   |
| Reduced Vol:              | 18                | 706  | 3           | 55                       | 1072 | 43         | 44   | 3    | 30   | 3    | 1    | 5    |   |   |   |   |
| PCE 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 |   |   |   |   |
| MLF 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 |   |   |   |   |
| FinalVolume:              | 18                | 706  | 3           | 55                       | 1072 | 43         | 44   | 3    | 30   | 3    | 1    | 5    |   |   |   |   |
| Saturation Flow Module:   |                   |      |             |                          |      |            |      |      |      |      |      |      |   |   |   |   |
| Sat/Lane:                 | 1900              | 1900 | 1900        | 1900                     | 1900 | 1900       | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |   |   |   |   |
| Adjustment:               | 0.95              | 0.95 | 0.85        | 0.95                     | 0.95 | 0.85       | 0.76 | 0.86 | 0.86 | 0.74 | 0.88 | 0.88 |   |   |   |   |
| Lanes:                    | 1.00              | 2.00 | 1.00        | 1.00                     | 2.00 | 1.00       | 1.00 | 0.09 | 0.91 | 1.00 | 0.17 | 0.83 |   |   |   |   |
| Final Sat.:               | 1805              | 3610 | 1615        | 1805                     | 3610 | 1615       | 1452 | 149  | 1492 | 1408 | 277  | 1385 |   |   |   |   |
| Capacity Analysis Module: |                   |      |             |                          |      |            |      |      |      |      |      |      |   |   |   |   |
| Vol/Sat:                  | 0.01              | 0.20 | 0.00        | 0.03                     | 0.30 | 0.03       | 0.03 | 0.02 | 0.02 | 0.00 | 0.00 | 0.00 |   |   |   |   |
| Crit Moves:               | ****              |      |             | ****                     |      |            |      |      |      |      |      |      |   |   |   |   |
| Green/Cycle:              | 0.05              | 0.50 | 0.50        | 0.13                     | 0.58 | 0.58       | 0.27 | 0.27 | 0.27 | 0.27 | 0.27 | 0.27 |   |   |   |   |
| Volume/Cap:               | 0.20              | 0.39 | 0.00        | 0.24                     | 0.51 | 0.05       | 0.11 | 0.08 | 0.08 | 0.01 | 0.01 | 0.01 |   |   |   |   |
| Uniform Del:              | 54.7              | 18.3 | 14.8        | 47.0                     | 14.8 | 10.7       | 33.3 | 32.9 | 32.9 | 32.3 | 32.4 | 32.4 |   |   |   |   |
| IncrementDel:             | 1.1               | 0.1  | 0.0         | 0.5                      | 0.2  | 0.0        | 0.1  | 0.1  | 0.1  | 0.0  | 0.0  | 0.0  |   |   |   |   |
| InitQueueDel:             | 0.0               | 0.0  | 0.0         | 0.0                      | 0.0  | 0.0        | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |   |   |   |   |
| Delay 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 |   |   |   |   |
| Delay/Veh:                | 55.8              | 18.5 | 14.8        | 47.5                     | 15.0 | 10.7       | 33.4 | 33.0 | 33.0 | 32.3 | 32.4 | 32.4 |   |   |   |   |
| User DelAdj:              | 1.00              | 1.00 | 1.00        | 1.00                     | 1.00 | 1.00       | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |   |   |   |   |
| AdjDel/Veh:               | 55.8              | 18.5 | 14.8        | 47.5                     | 15.0 | 10.7       | 33.4 | 33.0 | 33.0 | 32.3 | 32.4 | 32.4 |   |   |   |   |
| LOS by Move:              | E                 | B    | B           | D                        | B    | B          | C    | C    | C    | C    | C    | C    |   |   |   |   |
| HCM2k95thQ:               | 1                 | 15   | 0           | 4                        | 22   | 1          | 3    | 2    | 2    | 0    | 0    | 0    |   |   |   |   |

Level of Service Computation Report  
 2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #3 Crown Valley Pkwy/Church Dwy  
 Average Delay (sec/veh): 0.0 Worst Case Level Of Service: A[ 0.0]

| Street Name:             | Crown Valley Pkwy                              |      |              | Church Dwy |      |            |        |      |       |        |      |       |        |      |       |   |
|--------------------------|--|------|--------------|------------|------|------------|--------|------|-------|--------|------|-------|--------|------|-------|---|
| Approach:                | North Bound                                    |      | South Bound  | East Bound |      | West Bound |        |      |       |        |      |       |        |      |       |   |
| Movement:                | L  | T    | R            | L          | T    | R          | L      | T    | R     | L      | T    | R     |        |      |       |   |
| Control:                 | Uncontrolled                                   |      | Uncontrolled | Stop Sign  |      | Stop Sign  |        |      |       |        |      |       |        |      |       |   |
| Rights:                  | Include  |      | Include      | Include    |      | Include    |        |      |       |        |      |       |        |      |       |   |
| Lanes:                   | 0  | 0    | 1            | 1          | 0    | 0          | 0      | 2    | 0     | 0      | 0    | 0     | 0      | 0    | 0     | 1 |
| Volume Module:           |  |      |              |            |      |            |        |      |       |        |      |       |        |      |       |   |
| Base Vol:                | 0  | 727  | 7            | 0          | 1105 | 0          | 0      | 0    | 0     | 0      | 0    | 0     | 0      |      |       |   |
| Growth 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  |        |      |       |   |
| Initial Bse:             | 0  | 727  | 7            | 0          | 1105 | 0          | 0      | 0    | 0     | 0      | 0    | 0     | 0      |      |       |   |
| Added Vol:               | 0  | 0    | 4            | 0          | 0    | 0          | 0      | 0    | 0     | 0      | 0    | 0     | 0      |      |       |   |
| PasserByVol:             | 0  | 0    | 0            | 0          | 0    | 0          | 0      | 0    | 0     | 0      | 0    | 0     | 0      |      |       |   |
| Initial Fut:             | 0  | 727  | 11           | 0          | 1105 | 0          | 0      | 0    | 0     | 0      | 0    | 0     | 0      |      |       |   |
| User 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  |        |      |       |   |
| PHF 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  |        |      |       |   |
| PHF Volume:              | 0  | 727  | 11           | 0          | 1105 | 0          | 0      | 0    | 0     | 0      | 0    | 0     | 0      |      |       |   |
| Reduct Vol:              | 0  | 0    | 0            | 0          | 0    | 0          | 0      | 0    | 0     | 0      | 0    | 0     | 0      |      |       |   |
| FinalVolume:             | 0  | 727  | 11           | 0          | 1105 | 0          | 0      | 0    | 0     | 0      | 0    | 0     | 0      |      |       |   |
| Critical Gap Module:     |  |      |              |            |      |            |        |      |       |        |      |       |        |      |       |   |
| Critical Gp:             | xxxxx  | xxxx | xxxxx        | xxxxx      | xxxx | xxxxx      | xxxxx  | xxxx | xxxxx | xxxxx  | xxxx | xxxxx | xxxxx  | xxxx | 6.9   |   |
| FollowUpTim:             | xxxxx  | xxxx | xxxxx        | xxxxx      | xxxx | xxxxx      | xxxxx  | xxxx | xxxxx | xxxxx  | xxxx | xxxxx | xxxxx  | xxxx | 3.3   |   |
| Capacity Module:         |  |      |              |            |      |            |        |      |       |        |      |       |        |      |       |   |
| Chnflct Vol:             | xxxx   | xxxx | xxxxx        | xxxx       | xxxx | xxxxx      | xxxx   | xxxx | xxxxx | xxxx   | xxxx | xxxxx | xxxx   | xxxx | 369   |   |
| Potent Cap.:             | xxxx   | xxxx | xxxxx        | xxxx       | xxxx | xxxxx      | xxxx   | xxxx | xxxxx | xxxx   | xxxx | xxxxx | xxxx   | xxxx | 634   |   |
| Move Cap.:               | xxxx   | xxxx | xxxxx        | xxxx       | xxxx | xxxxx      | xxxx   | xxxx | xxxxx | xxxx   | xxxx | xxxxx | xxxx   | xxxx | 634   |   |
| Volume/Cap:              | xxxx   | xxxx | xxxx         | xxxx       | xxxx | xxxx       | xxxx   | xxxx | xxxx  | xxxx   | xxxx | xxxx  | xxxx   | xxxx | 0.00  |   |
| Level Of Service Module: |  |      |              |            |      |            |        |      |       |        |      |       |        |      |       |   |
| 2Way95thQ:               | xxxx   | xxxx | xxxxx        | xxxx       | xxxx | xxxxx      | xxxx   | xxxx | xxxxx | xxxx   | xxxx | xxxxx | xxxx   | xxxx | xxxxx |   |
| Control Del:             | xxxxx  | xxxx | xxxxx        | xxxxx      | xxxx | xxxxx      | xxxxx  | xxxx | xxxxx | xxxxx  | xxxx | xxxxx | xxxxx  | xxxx | xxxxx |   |
| LOS by Move:             | *  | *    | *            | *          | *    | *          | *      | *    | *     | *      | *    | *     | *      | *    | *     |   |
| Movement:                | LT   | LTR  | RT           | LT         | LTR  | RT         | LT     | LTR  | RT    | LT     | LTR  | RT    | LT     | LTR  | RT    |   |
| Shared Cap.:             | xxxx   | xxxx | xxxxx        | xxxx       | xxxx | xxxxx      | xxxx   | xxxx | xxxxx | xxxx   | xxxx | xxxxx | xxxx   | xxxx | xxxxx |   |
| SharedQueue:             | xxxxx  | xxxx | xxxxx        | xxxxx      | xxxx | xxxxx      | xxxxx  | xxxx | xxxxx | xxxxx  | xxxx | xxxxx | xxxxx  | xxxx | xxxxx |   |
| Shrd ConDel:             | xxxxx  | xxxx | xxxxx        | xxxxx      | xxxx | xxxxx      | xxxxx  | xxxx | xxxxx | xxxxx  | xxxx | xxxxx | xxxxx  | xxxx | xxxxx |   |
| Shared LOS:              | *  | *    | *            | *          | *    | *          | *      | *    | *     | *      | *    | *     | *      | *    | *     |   |
| ApproachDel:             | xxxxxx   | *    | *            | xxxxxx     | *    | *          | xxxxxx | *    | *     | xxxxxx | *    | *     | xxxxxx | *    | *     |   |
| ApproachLOS:             | *  | *    | *            | *          | *    | *          | *      | *    | *     | *      | *    | *     | *      | *    | *     |   |
| Note:                    | Queue reported is the number of cars per lane. |      |              |            |      |            |        |      |       |        |      |       |        |      |       |   |

-----  
Future Queue Report (cars)  
-----

| Node | Intersection  | Northbound |      |        | Southbound |      |        | Eastbound |      |        | Westbound |      |        |
|------|---------------|------------|------|--------|------------|------|--------|-----------|------|--------|-----------|------|--------|
|      |               | L          | --   | T -- R | L          | --   | T -- R | L         | --   | T -- R | L         | --   | T -- R |
| #2   | [HCM2k95thQ]: | 2          | 22   | 0      | 1          | 20   | 1      | 2         | 0    | 2      | 1         | 0    | 1      |
| #3   | [2Way95thQ]:  | xxxx       | xxxx | xxxx   | xxxx       | xxxx | xxxx   | xxxx      | xxxx | xxxx   | xxxx      | xxxx | 0.1    |

Level of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 Crown Valley Pkwy/Sea Island Dr-Church Dwy

Cycle (sec): 120 Critical Vol./Cap.(X): 0.354
Loss Time (sec): 12 Average Delay (sec/veh): 17.7
Optimal Cycle: 90 Level Of Service: B

Table with columns for Street Name, Approach, Movement, Control, Rights, Lanes, Min. Green, Y+R, and Volume Module. Includes data for Crown Valley Pkwy, Sea Island Dr, and Church Dwy.

Table with columns for Sat/Lane, Adjustment, Lanes, Final Sat., Capacity Analysis Module, and Delay Adj. Includes data for various traffic metrics.

Table with columns for Sat/Lane, Adjustment, Lanes, Final Sat., Capacity Analysis Module, and Delay Adj. Includes data for various traffic metrics.

Level of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #3 Crown Valley Pkwy/Church Dwy

Average Delay (sec/veh): 0.1 Worst Case Level Of Service: B[ 12.3]

Table with columns for Street Name, Approach, Movement, Control, Rights, Lanes, Volume Module, and Critical Gap Module. Includes data for Crown Valley Pkwy and Church Dwy.

Table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, FinalVolume, Critical Gap Module, FollowUpTim, Capacity Module, and Volume/Cap.

Table with columns for Level Of Service Module, 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap, Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS.

Table with columns for Level Of Service Module, 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap, Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS.

Note: Queue reported is the number of cars per lane.



-----  
Future Queue Report (cars)  
-----

| Node Intersection | Northbound |      |        | Southbound |      |        | Eastbound |      |        | Westbound |      |        |
|-------------------|------------|------|--------|------------|------|--------|-----------|------|--------|-----------|------|--------|
|                   | L          | --   | T -- R | L          | --   | T -- R | L         | --   | T -- R | L         | --   | T -- R |
| #2 [HCM2k95thQ]:  | 2          | 18   | 0      | 4          | 18   | 1      | 2         | 1    | 1      | 4         | 6    | 6      |
| #3 [2Way95thQ]:   | xxxx       | xxxx | xxxx   | xxxx       | xxxx | xxxx   | xxxx      | xxxx | xxxx   | xxxx      | xxxx | 0.5    |

Level of Service Computation Report  
2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 Crown Valley Pkwy/Sea Island Dr-Church Dwy

Cycle (sec): 120 Critical Vol./Cap.(X): 0.384  
Loss Time (sec): 12 Average Delay (sec/veh): 19.4  
Optimal Cycle: 90 Level Of Service: B

Street Name: Crown Valley Pkwy Sea Island Dr-Church Dwy

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Permitted Permitted

Rights: Include Include Include Include

Min. Green: 6 18 18 6 18 18 32 32 32 32 32 32

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 2 0 1 1 0 2 0 1 1 0 0 1 0 1 0 1 0

Volume Module:

Base Vol: 33 797 6 22 943 40 32 1 20 44 3 94

Growth 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

Initial Bse: 33 797 6 22 943 40 32 1 20 44 3 94

Added Vol: 0 19 2 34 0 0 0 1 0 19 1 10

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 33 816 8 56 943 40 32 2 20 63 4 104

User 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

PHF 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

PHF Volume: 33 816 8 56 943 40 32 2 20 63 4 104

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 33 816 8 56 943 40 32 2 20 63 4 104

PCE 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

MLF 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

FinalVolume: 33 816 8 56 943 40 32 2 20 63 4 104

Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900

Adjustment: 0.95 0.95 0.85 0.95 0.95 0.85 0.65 0.86 0.86 0.75 0.86 0.86

Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 1.00 0.09 0.91 1.00 0.04 0.96

Final Sat.: 1805 3610 1615 1805 3610 1615 1233 149 1492 1425 60 1566

Capacity Analysis Module:

Vol/Sat: 0.02 0.23 0.00 0.03 0.26 0.02 0.03 0.01 0.01 0.04 0.07 0.07

Crit Moves: \*\*\*\*

Green/Cycle: 0.05 0.52 0.52 0.11 0.58 0.58 0.27 0.27 0.27 0.27 0.27 0.27

Volume/Cap: 0.37 0.44 0.01 0.27 0.45 0.04 0.10 0.05 0.05 0.17 0.25 0.25

Uniform Del: 55.2 18.0 14.0 48.5 14.1 10.7 33.1 32.7 32.7 33.8 34.6 34.6

IncrementDel: 2.5 0.2 0.0 0.7 0.2 0.0 0.1 0.0 0.0 0.2 0.3 0.3

InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0

Delay 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

Delay/Veh: 57.7 18.1 14.0 49.2 14.3 10.7 33.3 32.8 32.8 34.0 34.9 34.9

User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 57.7 18.1 14.0 49.2 14.3 10.7 33.3 32.8 32.8 34.0 34.9 34.9

LOS by Move: E B B D B B C C C C C C

HCM2k95thQ: 2 18 0 4 18 1 2 1 1 4 6 6

Level of Service Computation Report  
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #3 Crown Valley Pkwy/Church Dwy

Average Delay (sec/veh): 0.5 Worst Case Level Of Service: B[ 11.9]

Street Name: Crown Valley Pkwy Church Dwy

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Uncontrolled Uncontrolled Stop Sign Stop Sign

Rights: Include Include Include Include

Lanes: 0 0 1 1 0 0 0 2 0 0 0 0 0 0 0 0 1

Volume Module:

Base Vol: 0 763 7 0 1022 0 0 0 0 0 0 0 69

Growth 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

Initial Bse: 0 763 7 0 1022 0 0 0 0 0 0 0 69

Added Vol: 0 2 19 0 19 0 0 0 0 0 0 0 19

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 0 765 26 0 1041 0 0 0 0 0 0 0 88

User 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

PHF 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

PHF Volume: 0 765 26 0 1041 0 0 0 0 0 0 0 88

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0

FinalVolume: 0 765 26 0 1041 0 0 0 0 0 0 0 88

Critical Gap Module:

Critical Gp:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxxx 6.9

FollowUpTim:xxxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxxx xxxxx xxxxx 3.3

Capacity Module:

Chnflct Vol: xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxxx 396

Potent Cap.: xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxxx 609

Move Cap.: xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxxx 609

Volume/Cap: xxxxx xxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 0.14

Level Of Service Module:

2Way95thQ: xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxxx 0.5

Control Del:xxxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxxx xxxxx xxxxx 11.9

LOS by Move: \* \* \* \* \* \* \* \* \* \* \* \* \* \* \* \* B

Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT

Shared Cap.: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx

SharedQueue:xxxxxx xxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx

Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx

Shared LOS: \* \* \* \* \* \* \* \* \* \* \* \* \* \* \* \* \*

ApproachDel: xxxxxx xxxxxx xxxxxx 11.9

ApproachLOS: \* \* \* \* \* \* \* \* \* \* \* \* \* \* \* \* B

Note: Queue reported is the number of cars per lane.

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Future Queue Report (cars)  
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| Node | Intersection  | Northbound |      |        | Southbound |      |        | Eastbound |      |        | Westbound |      |        |
|------|---------------|------------|------|--------|------------|------|--------|-----------|------|--------|-----------|------|--------|
|      |               | L          | --   | T -- R | L          | --   | T -- R | L         | --   | T -- R | L         | --   | T -- R |
| #2   | [HCM2k95thQ]: | 1          | 17   | 0      | 4          | 26   | 1      | 3         | 2    | 2      | 0         | 0    | 0      |
| #3   | [2Way95thQ]:  | xxxx       | xxxx | xxxx   | xxxx       | xxxx | xxxx   | xxxx      | xxxx | xxxx   | xxxx      | xxxx | xxxx   |



-----  
Future Queue Report (cars)  
-----

| Node | Intersection  | Northbound |      |        | Southbound |      |        | Eastbound |      |        | Westbound |      |        |
|------|---------------|------------|------|--------|------------|------|--------|-----------|------|--------|-----------|------|--------|
|      |               | L          | --   | T -- R | L          | --   | T -- R | L         | --   | T -- R | L         | --   | T -- R |
| #2   | [HCM2k95thQ]: | 2          | 26   | 0      | 1          | 24   | 1      | 2         | 0    | 2      | 1         | 0    | 1      |
| #3   | [2Way95thQ]:  | xxxx       | xxxx | xxxx   | xxxx       | xxxx | xxxx   | xxxx      | xxxx | xxxx   | xxxx      | xxxx | 0.1    |

Level of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 Crown Valley Pkwy/Sea Island Dr-Church Dwy

Cycle (sec): 120 Critical Vol./Cap.(X): 0.401
Loss Time (sec): 12 Average Delay (sec/veh): 18.2
Optimal Cycle: 90 Level Of Service: B

Street Name: Crown Valley Pkwy Sea Island Dr-Church Dwy

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Permitted Permitted

Rights: Include Include Include Include

Min. Green: 6 18 18 6 18 18 32 32 32 32 32 32

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 2 0 1 1 0 2 0 1 1 0 0 1 0 1 0 1 0

Volume Module:

Base Vol: 26 1015 2 16 993 47 42 0 27 8 0 6

Growth Adj: 1.00 1.13 1.00 1.00 1.13 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 26 1147 2 16 1122 47 42 0 27 8 0 6

Added Vol: 0 7 0 0 0 0 0 0 0 7 0 4

PasserByVol: 0 19 0 0 24 0 0 0 0 0 0 0

Initial Fut: 26 1173 2 16 1146 47 42 0 27 15 0 10

User 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

PHF 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

PHF Volume: 26 1173 2 16 1146 47 42 0 27 15 0 10

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 26 1173 2 16 1146 47 42 0 27 15 0 10

PCE 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

MLF 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

FinalVolume: 26 1173 2 16 1146 47 42 0 27 15 0 10

Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900

Adjustment: 0.95 0.95 0.85 0.95 0.95 0.85 0.76 1.00 0.85 0.75 1.00 0.85

Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 1.00 0.00 1.00 1.00 0.00 1.00

Final Sat.: 1805 3610 1615 1805 3610 1615 1444 0 1615 1417 0 1615

Capacity Analysis Module:

Vol/Sat: 0.01 0.32 0.00 0.01 0.32 0.03 0.03 0.00 0.02 0.01 0.00 0.01

Crit Moves: \*\*\*\* \*\*\*\*

Green/Cycle: 0.05 0.55 0.55 0.08 0.58 0.58 0.27 0.00 0.27 0.27 0.00 0.27

Volume/Cap: 0.29 0.59 0.00 0.10 0.54 0.05 0.11 0.00 0.06 0.04 0.00 0.02

Uniform Del: 54.9 18.1 12.2 50.7 15.3 10.7 33.2 0.0 32.8 32.6 0.0 32.5

IncrementDel: 1.8 0.5 0.0 0.3 0.3 0.0 0.1 0.0 0.1 0.0 0.0 0.0

InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0

Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00 1.00

Delay/Veh: 56.7 18.6 12.2 51.0 15.6 10.8 33.4 0.0 32.9 32.7 0.0 32.5

User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 56.7 18.6 12.2 51.0 15.6 10.8 33.4 0.0 32.9 32.7 0.0 32.5

LOS by Move: E B D B C A C C A C

HCM2k95thQ: 2 26 0 1 24 1 2 0 2 1 0 1

Level of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #3 Crown Valley Pkwy/Church Dwy

Average Delay (sec/veh): 0.0 Worst Case Level Of Service: B[ 13.2]

Street Name: Crown Valley Pkwy Church Dwy

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Uncontrolled Uncontrolled Stop Sign Stop Sign

Rights: Include Include Include Include

Lanes: 0 0 1 1 0 0 0 2 0 0 0 0 0 0 0 0 1

Volume Module:

Base Vol: 0 1043 0 0 1028 0 0 0 0 0 0 0 2

Growth Adj: 1.00 1.13 1.00 1.00 1.13 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 0 1179 0 0 1162 0 0 0 0 0 0 0 2

Added Vol: 0 0 0 0 7 0 0 0 0 0 0 0 7

PasserByVol: 0 19 0 0 24 0 0 0 0 0 0 0 0

Initial Fut: 0 1198 0 0 1193 0 0 0 0 0 0 0 9

User 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

PHF 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

PHF Volume: 0 1198 0 0 1193 0 0 0 0 0 0 0 9

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0

FinalVolume: 0 1198 0 0 1193 0 0 0 0 0 0 0 9

Critical Gap Module:

Critical Gp:xxxxx xxxx xxxxx xxxxx xxxx xxxx xxxxx xxxxx xxxx 6.9

FollowUpTim:xxxxxx xxxx xxxxxx xxxxxx xxxx xxxx xxxxxx xxxxxx xxxxx 3.3

Capacity Module:

Chnflct Vol: xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxxx 599

Potent Cap.: xxxxx xxxx xxxxxx xxxxx xxxx xxxxxx xxxxx xxxx xxxxxx xxxxx xxxxx 450

Move Cap.: xxxxx xxxx xxxxxx xxxxx xxxx xxxxxx xxxxx xxxx xxxxxx xxxxx xxxxx 450

Volume/Cap: xxxxx xxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 0.02

Level Of Service Module:

2Way95thQ: xxxxx xxxx xxxxxx xxxxx xxxx xxxxxx xxxxx xxxx xxxxxx xxxxx xxxxx 0.1

Control Del:xxxxxx xxxx xxxxxx xxxxxx xxxx xxxxxx xxxxxx xxxxx xxxxxx xxxxxx xxxxx 13.2

LOS by Move: \* \* \* \* \* \* \* \* \* \* \* \* \* \* \* \* \* \* B

Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT

Shared Cap.: xxxxx xxxx xxxxxx xxxxx xxxx xxxxxx xxxxx xxxx xxxxxx xxxxx xxxxx xxxxxx

SharedQueue:xxxxxx xxxx xxxxxx xxxxxx xxxx xxxxxx xxxxxx xxxxx xxxxxx xxxxx xxxxxx

Shrd ConDel:xxxxx xxxx xxxxxx xxxxx xxxx xxxxxx xxxxx xxxxx xxxxxx xxxxx xxxxxx

Shared LOS: \* \* \* \* \* \* \* \* \* \* \* \* \* \* \* \* \* \* \*

ApproachDel: xxxxxx xxxxxx xxxxxx 13.2

ApproachLOS: \* \* \* \* \* \* \* \* \* \* \* \* \* \* \* \* \* \* B

Note: Queue reported is the number of cars per lane.

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 Future Queue Report (cars)  
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| Node | Intersection  | Northbound |      |        | Southbound |      |        | Eastbound |      |        | Westbound |      |        |
|------|---------------|------------|------|--------|------------|------|--------|-----------|------|--------|-----------|------|--------|
|      |               | L          | --   | T -- R | L          | --   | T -- R | L         | --   | T -- R | L         | --   | T -- R |
| #2   | [HCM2k95thQ]: | 2          | 20   | 0      | 4          | 22   | 1      | 2         | 1    | 1      | 4         | 6    | 6      |
| #3   | [2Way95thQ]:  | xxxx       | xxxx | xxxx   | xxxx       | xxxx | xxxx   | xxxx      | xxxx | xxxx   | xxxx      | xxxx | 0.5    |

Level of Service Computation Report  
2000 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #2 Crown Valley Pkwy/Sea Island Dr-Church Dwy  
\*\*\*\*\*

Cycle (sec): 120 Critical Vol./Cap.(X): 0.424  
Loss Time (sec): 12 Average Delay (sec/veh): 19.4  
Optimal Cycle: 90 Level Of Service: B  
\*\*\*\*\*

Street Name: Crown Valley Pkwy Sea Island Dr-Church Dwy

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Permitted Permitted  
Rights: Include Include Include Include

Min. Green: 6 18 18 6 18 18 32 32 32 32 32 32  
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 2 0 1 1 0 2 0 1 1 0 0 1 0 1 0 1 0

Volume Module:

Table with 12 columns for traffic metrics (Base Vol, Growth Adj, Initial Bse, etc.) and 12 rows for different approaches and movements.

Saturation Flow Module:

Table with 12 columns for traffic metrics (Sat/Lane, Adjustment, Lanes, Final Sat.) and 12 rows for different approaches and movements.

Capacity Analysis Module:

Table with 12 columns for traffic metrics (Vol/Sat, Crit Moves, Green/Cycle, etc.) and 12 rows for different approaches and movements.

Level of Service Computation Report  
2000 HCM Unsignalized Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #3 Crown Valley Pkwy/Church Dwy  
\*\*\*\*\*

Average Delay (sec/veh): 0.5 Worst Case Level Of Service: B [ 12.6 ]  
\*\*\*\*\*

Street Name: Crown Valley Pkwy Church Dwy

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Uncontrolled Uncontrolled Stop Sign Stop Sign  
Rights: Include Include Include Include

Lanes: 0 0 1 1 0 0 0 2 0 0 0 0 0 0 0 0 1

Volume Module:

Table with 12 columns for traffic metrics (Base Vol, Growth Adj, Initial Bse, etc.) and 12 rows for different approaches and movements.

Critical Gap Module:

Table with 12 columns for traffic metrics (Critical Gp, FollowUpTim) and 12 rows for different approaches and movements.

Capacity Module:

Table with 12 columns for traffic metrics (Chnflct Vol, Potent Cap., Move Cap., Volume/Cap.) and 12 rows for different approaches and movements.

Level Of Service Module:

Table with 12 columns for traffic metrics (2Way95thQ, Control Del, LOS by Move, etc.) and 12 rows for different approaches and movements.

ApproachDel: 12.6  
ApproachLOS: B

Note: Queue reported is the number of cars per lane.  
\*\*\*\*\*



## APPENDIX G

# CONSTRUCTION PHASING ASSUMPTIONS

*Both for Project 8*

21235 South Shores - Alternative  
Vehicle Traffic Review

5/15/2014

| Phase | Duration | Vehicle/ Heavy Equip. Type | Average p/day | Peak Duration                  |
|-------|----------|----------------------------|---------------|--------------------------------|
| 1A    | 12 Mo.   | Construction Workers       | 15 - 20       | N/A                            |
|       |          | Delivery Truck             | 2             | Avg. Peak 4 for 4 weeks        |
|       |          | Backhoe                    | 1             | N/A                            |
|       |          | Loader                     | 1             | N/A                            |
|       |          | Excavator                  | 1             | N/A                            |
|       |          | Dump Truck                 | N/A           | Avg. Peak 25 p/day for 2 weeks |
|       |          | Concrete Truck             | N/A           | Avg. Peak 25 p/day for 2 weeks |
|       |          | Crane                      | N/A           | Approx. 2 move-ins             |
| 1B    | 3 Mo.    | Construction Workers       | 10 - 15       | N/A                            |
|       |          | Backhoe                    | 1             | N/A                            |
|       |          | Loader                     | 1             | N/A                            |
|       |          | Excavator                  | 1             | N/A                            |
|       |          | Dump Truck                 | N/A           | Avg. Peak 4 p/hr for 2 weeks   |
| 1B.E1 | 3 Mo.    | Construction Workers       | 10 - 15       | N/A                            |
|       |          | Backhoe                    | 1             | N/A                            |
|       |          | Loader                     | 1             | N/A                            |
|       |          | Excavator                  | 1             | N/A                            |
|       |          | Dump Truck                 | N/A           | Avg. Peak 8 p/hr for 6 weeks   |
| 1B.E2 | 3 Mo.    | Construction Workers       | 10 - 15       | N/A                            |
|       |          | Delivery Truck             | 2             | Avg. Peak 4 for 8 weeks        |
|       |          | Backhoe                    | 1             | N/A                            |
|       |          | Loader                     | 1             | N/A                            |
|       |          | Excavator                  | 1             | N/A                            |
|       |          | Drill Rig                  | 1             | N/A                            |
|       |          | Dump Truck                 | N/A           | Avg. Peak 12 p/day for 8 weeks |
|       |          | Concrete Truck             | N/A           | Avg. Peak 12 p/day for 8 weeks |
| Crane | N/A      | Approx. 2 Move-ins         |               |                                |
| 1C    | 12 Mo.   | Construction Workers       | 15 - 20       | N/A                            |
|       |          | Delivery Truck             | 2             | Avg. Peak 4 for 4 weeks        |
|       |          | Backhoe                    | 1             | N/A                            |
|       |          | Loader                     | 1             | N/A                            |
|       |          | Excavator                  | 1             | N/A                            |
|       |          | Dump Truck                 | N/A           | Avg. Peak 25 p/day for 2 weeks |
|       |          | Concrete Truck             | N/A           | Avg. Peak 25 p/day for 2 weeks |
|       |          | Crane                      | N/A           | Approx. 2 move-ins             |
| 2     | 12 Mo.   | Construction Workers       | 15 - 20       | N/A                            |
|       |          | Delivery Truck             | 2             | Avg. Peak 4 for 4 weeks        |
|       |          | Backhoe                    | 1             | N/A                            |
|       |          | Loader                     | 1             | N/A                            |
|       |          | Excavator                  | 1             | N/A                            |
|       |          | Dump Truck                 | N/A           | Avg. Peak 25 p/day for 2 weeks |
|       |          | Concrete Truck             | N/A           | Avg. Peak 25 p/day for 2 weeks |
|       |          | Crane                      | N/A           | Approx. 2 move-ins             |
| 3     | 12 Mo.   | Construction Workers       | 15 - 20       | N/A                            |
|       |          | Delivery Truck             | 2             | Avg. Peak 4 for 4 weeks        |
|       |          | Backhoe                    | 1             | N/A                            |
|       |          | Loader                     | 1             | N/A                            |
|       |          | Excavator                  | 1             | N/A                            |
|       |          | Dump Truck                 | N/A           | Avg. Peak 25 p/day for 2 weeks |
|       |          | Concrete Truck             | N/A           | Avg. Peak 25 p/day for 2 weeks |
|       |          | Crane                      | N/A           | Approx. 2 move-ins             |

**21235 South Shores - Alternative  
Vehicle Traffic Review**

5/15/2014

|   |       |                      |         |                                |
|---|-------|----------------------|---------|--------------------------------|
| 4 | 7 Mo. | Construction Workers | 10 - 15 | N/A                            |
|   |       | Delivery Truck       | 2       | Avg. Peak 4 for 4 weeks        |
|   |       | Backhoe              | 1       | N/A                            |
|   |       | Loader               | 1       | N/A                            |
|   |       | Excavator            | 1       | N/A                            |
|   |       | Dump Truck           | N/A     | Avg. Peak 20 p/day for 4 weeks |
|   |       | Concrete Truck       | N/A     | Avg. Peak 20 p/day for 4 weeks |
|   |       | Boom Pump            | N/A     | Approx. 4 Move-ins             |
|   |       | Crane                | N/A     | Approx. 2 Move-ins             |
| 5 | 7 Mo. | Construction Workers | 10 -15  | N/A                            |
|   |       | Delivery Truck       | 2       | Avg. Peak 4 for 4 weeks        |
|   |       | Backhoe              | 1       | N/A                            |
|   |       | Loader               | 1       | N/A                            |
|   |       | Excavator            | 1       | N/A                            |
|   |       | Dump Truck           | N/A     | Avg. Peak 20 p/day for 4 weeks |
|   |       | Concrete Truck       | N/A     | Avg. Peak 20 p/day for 4 weeks |
|   |       | Boom Pump            | N/A     | Approx. 4 Move-ins             |
|   |       | Crane                | N/A     | Approx. 2 Move-ins             |

**APPENDIX H**

**EXISTING PLUS CONSTRUCTION  
LEVEL OF SERVICE WORKSHEETS**

Level Of Service Computation Report  
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #1 Crown Valley Pkwy/Camino Del Avion  
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.451  
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx  
Optimal Cycle: 22 Level Of Service: A  
\*\*\*\*\*

Street Name: Crown Valley Pkwy Camino Del Avion  
Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R  
Control: Protected Protected Protected Protected  
Rights: Include Include Include Include  
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0  
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0  
Lanes: 1 0 3 0 1 1 0 2 0 1 1 0 1 0 1 2 0 1 0 1

Volume Module:  
Base Vol: 47 615 102 129 792 14 4 36 94 260 56 203  
Growth 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  
Initial Bse: 47 615 102 129 792 14 4 36 94 260 56 203  
Added Vol: 1 8 2 0 17 0 0 0 2 5 0 0  
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0  
Initial Fut: 48 623 104 129 809 14 4 36 96 265 56 203  
User 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  
PHF 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  
PHF Volume: 48 623 104 129 809 14 4 36 96 265 56 203  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 48 623 104 129 809 14 4 36 96 265 56 203  
PCE 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  
MLF 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  
FinalVolume: 48 623 104 129 809 14 4 36 96 265 56 203

Saturation Flow Module:  
Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700  
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Lanes: 1.00 3.00 1.00 1.00 2.00 1.00 1.00 1.00 1.00 2.00 1.00 1.00  
Final Sat.: 1700 5100 1700 1700 3400 1700 1700 1700 1700 3400 1700 1700

Capacity Analysis Module:  
Vol/Sat: 0.03 0.12 0.06 0.08 0.24 0.01 0.00 0.02 0.06 0.08 0.03 0.12  
Crit Moves: \*\*\*\*

\*\*\*\*\*

Level Of Service Computation Report  
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #2 Crown Valley Pkwy/Sea Island Dr-Church Dwy  
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.414  
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx  
Optimal Cycle: 20 Level Of Service: A  
\*\*\*\*\*

Street Name: Crown Valley Pkwy Sea Island Dr-Church Dwy  
Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R  
Control: Protected Protected Permitted Permitted  
Rights: Include Include Include Include  
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0  
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0  
Lanes: 1 0 2 0 1 1 0 2 0 1 1 0 0 1 0 0 0 1 0 0

Volume Module:  
Base Vol: 18 706 3 48 1072 43 44 3 30 3 1 5  
Growth 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  
Initial Bse: 18 706 3 48 1072 43 44 3 30 3 1 5  
Added Vol: 0 7 1 23 0 0 0 0 1 0 7 0 4  
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0  
Initial Fut: 18 713 4 71 1072 43 44 4 30 10 1 9  
User 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  
PHF 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  
PHF Volume: 18 713 4 71 1072 43 44 4 30 10 1 9  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 18 713 4 71 1072 43 44 4 30 10 1 9  
PCE 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  
MLF 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  
FinalVolume: 18 713 4 71 1072 43 44 4 30 10 1 9

Saturation Flow Module:  
Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700  
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 1.00 0.12 0.88 0.50 0.05 0.45  
Final Sat.: 1700 3400 1700 1700 3400 1700 1700 200 1500 850 85 765

Capacity Analysis Module:  
Vol/Sat: 0.01 0.21 0.00 0.04 0.32 0.03 0.03 0.02 0.02 0.01 0.01 0.01  
Crit Moves: \*\*\*\*

\*\*\*\*\*

Level of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #3 Crown Valley Pkwy/Church Dwy

Average Delay (sec/veh): 0.0 Worst Case Level of Service: B[ 10.8]

Table with columns for Street Name, Approach, Movement, Control, Rights, Lanes, Volume Module, and Critical Gap Module. Includes data for Crown Valley Pkwy and Church Dwy.

Table with columns for Capacity Module, showing Chnflct Vol, Potent Cap, Move Cap, and Volume/Cap.

Table with columns for Level of Service Module, showing 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap, Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS.

Note: Queue reported is the number of cars per lane.

Level of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #4 Crown Valley Pkwy/Lumeria Ln

Average Delay (sec/veh): 0.1 Worst Case Level of Service: C[ 18.6]

Table with columns for Street Name, Approach, Movement, Control, Rights, Lanes, Volume Module, and Critical Gap Module. Includes data for Crown Valley Pkwy and Lumeria Ln.

Table with columns for Capacity Module, showing Chnflct Vol, Potent Cap, Move Cap, and Volume/Cap.

Table with columns for Level of Service Module, showing 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap, Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS.

Note: Queue reported is the number of cars per lane.

```

-----
Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #5 Crown Valley Pkwy/Pacific Coast Hwy
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      0.579
Loss Time (sec):   5           Average Delay (sec/veh):    xxxxxx
Optimal Cycle:    28           Level Of Service:         A
*****
Street Name:      Crown Valley Pkwy          Pacific Coast Hwy
Approach:         North Bound          South Bound          East Bound          West Bound
Movement:        L - T - R          L - T - R          L - T - R          L - T - R
-----|-----|-----|-----|
Control:         Split Phase          Split Phase          Protected          Protected
Rights:          Include             Ovl                 Include             Ovl
Min. Green:      0 0 0              0 0 0              0 0 0              0 0 0
Y+R:            4.0 4.0 4.0        4.0 4.0 4.0        4.0 4.0 4.0        4.0 4.0 4.0
Lanes:          0 1 0 1 0          1 1 0 0 2          2 0 1 1 0          1 0 2 0 1
-----|-----|-----|-----|
Volume Module:
Base Vol:        13 28 26          198 33 776         421 503 10         30 949 193
Growth 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
Initial Bse:    13 28 26          198 33 776         421 503 10         30 949 193
Added Vol:      0 0 0              2 0 5              9 0 0              0 0 5
PasserByVol:   0 0 0              0 0 0              0 0 0              0 0 0
Initial Fut:    13 28 26          200 33 781         430 503 10         30 949 198
User 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
PHF 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
PHF Volume:     13 28 26          200 33 781         430 503 10         30 949 198
Reduct Vol:     0 0 0              0 0 0              0 0 0              0 0 0
Reduced Vol:   13 28 26          200 33 781         430 503 10         30 949 198
PCE 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
MLF 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
FinalVolume:   13 28 26          200 33 781         430 503 10         30 949 198
OvlAdjVol:     351
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:       1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
Adjustment:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:          0.39 0.83 0.78 1.72 0.28 2.00 2.00 1.96 0.04 1.00 2.00 1.00
Final Sat.:     660 1421 1319 2918 482 3400 3400 3334 66 1700 3400 1700
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:        0.02 0.02 0.02 0.07 0.07 0.23 0.13 0.15 0.15 0.02 0.28 0.12
OvlAdjV/S:      0.10
Crit Moves:     ****          ****          ****          ****
*****

```

Level Of Service Computation Report  
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #1 Crown Valley Pkwy/Camino Del Avion  
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.491  
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx  
Optimal Cycle: 23 Level Of Service: A  
\*\*\*\*\*

Street Name: Crown Valley Pkwy Camino Del Avion  
Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R  
Control: Protected Protected Protected Protected  
Rights: Include Include Include Include  
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0  
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0  
Lanes: 1 0 3 0 1 1 0 2 0 1 1 0 1 0 1 2 0 1 0 1

Volume Module:  
Base Vol: 62 818 206 301 790 9 13 72 98 140 83 133  
Growth 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  
Initial Bse: 62 818 206 301 790 9 13 72 98 140 83 133  
Added Vol: 2 17 5 0 8 0 0 0 1 2 0 0  
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0  
Initial Fut: 64 835 211 301 798 9 13 72 99 142 83 133  
User 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  
PHF 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  
PHF Volume: 64 835 211 301 798 9 13 72 99 142 83 133  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 64 835 211 301 798 9 13 72 99 142 83 133  
PCE 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  
MLF 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  
FinalVolume: 64 835 211 301 798 9 13 72 99 142 83 133

Saturation Flow Module:  
Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700  
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Lanes: 1.00 3.00 1.00 1.00 2.00 1.00 1.00 1.00 1.00 2.00 1.00 1.00  
Final Sat.: 1700 5100 1700 1700 3400 1700 1700 1700 1700 3400 1700 1700

Capacity Analysis Module:  
Vol/Sat: 0.04 0.16 0.12 0.18 0.23 0.01 0.01 0.04 0.06 0.04 0.05 0.08  
Crit Moves: \*\*\*\*

\*\*\*\*\*

Level Of Service Computation Report  
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #2 Crown Valley Pkwy/Sea Island Dr-Church Dwy  
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.416  
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx  
Optimal Cycle: 21 Level Of Service: A  
\*\*\*\*\*

Street Name: Crown Valley Pkwy Sea Island Dr-Church Dwy  
Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R  
Control: Protected Protected Permitted Permitted  
Rights: Include Include Include Include  
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0  
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0  
Lanes: 1 0 2 0 1 1 0 2 0 1 1 0 0 1 0 0 0 0 1 0 0

Volume Module:  
Base Vol: 26 1015 2 16 993 47 42 0 27 8 0 6  
Growth 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  
Initial Bse: 26 1015 2 16 993 47 42 0 27 8 0 6  
Added Vol: 0 15 1 11 0 0 0 0 0 15 1 8  
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0  
Initial Fut: 26 1030 3 27 993 47 42 0 27 23 1 14  
User 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  
PHF 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  
PHF Volume: 26 1030 3 27 993 47 42 0 27 23 1 14  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 26 1030 3 27 993 47 42 0 27 23 1 14  
PCE 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  
MLF 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  
FinalVolume: 26 1030 3 27 993 47 42 0 27 23 1 14

Saturation Flow Module:  
Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700  
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 1.00 0.00 1.00 0.60 0.03 0.37  
Final Sat.: 1700 3400 1700 1700 3400 1700 1700 0 1700 1029 45 626

Capacity Analysis Module:  
Vol/Sat: 0.02 0.30 0.00 0.02 0.29 0.03 0.02 0.00 0.02 0.01 0.02 0.02  
Crit Moves: \*\*\*\*

\*\*\*\*\*



Level of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #3 Crown Valley Pkwy/Church Dwy

Average Delay (sec/veh): 0.1 Worst Case Level Of Service: B[ 12.4]

Table with columns: Street Name, Approach, Movement, Control, Rights, Lanes. Rows for North Bound, South Bound, East Bound, West Bound.

Table with columns: Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, FinalVolume.

Table with columns: Critical Gap Module, Critical Gp, FollowUpTim.

Table with columns: Capacity Module, Cnflict Vol, Potent Cap., Move Cap., Volume/Cap.

Table with columns: Level Of Service Module, 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

Note: Queue reported is the number of cars per lane.

Level of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #4 Crown Valley Pkwy/Lumeria Ln

Average Delay (sec/veh): 0.1 Worst Case Level Of Service: D[ 26.1]

Table with columns: Street Name, Approach, Movement, Control, Rights, Lanes. Rows for North Bound, South Bound, East Bound, West Bound.

Table with columns: Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, FinalVolume.

Table with columns: Critical Gap Module, Critical Gp, FollowUpTim.

Table with columns: Capacity Module, Cnflict Vol, Potent Cap., Move Cap., Volume/Cap.

Table with columns: Level Of Service Module, 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*  
 Intersection #5 Crown Valley Pkwy/Pacific Coast Hwy  
 \*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.577  
 Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 27 Level Of Service: A  
 \*\*\*\*\*

| Street Name: | Crown Valley Pkwy |     |     |             |     |     | Pacific Coast Hwy |     |     |            |     |     |
|--------------|-------------------|-----|-----|-------------|-----|-----|-------------------|-----|-----|------------|-----|-----|
| Approach:    | North Bound       |     |     | South Bound |     |     | East Bound        |     |     | West Bound |     |     |
| Movement:    | L                 | T   | R   | L           | T   | R   | L                 | T   | R   | L          | T   | R   |
| Control:     | Split Phase       |     |     | Split Phase |     |     | Protected         |     |     | Protected  |     |     |
| Rights:      | Include           |     |     | Ovl         |     |     | Include           |     |     | Ovl        |     |     |
| Min. Green:  | 0                 | 0   | 0   | 0           | 0   | 0   | 0                 | 0   | 0   | 0          | 0   | 0   |
| Y+R:         | 4.0               | 4.0 | 4.0 | 4.0         | 4.0 | 4.0 | 4.0               | 4.0 | 4.0 | 4.0        | 4.0 | 4.0 |
| Lanes:       | 0                 | 1   | 0   | 1           | 0   | 0   | 2                 | 2   | 0   | 1          | 1   | 0   |

Volume Module:

|              |      |      |      |      |      |      |      |      |      |      |      |      |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol:    | 12   | 44   | 30   | 215  | 40   | 470  | 721  | 961  | 12   | 30   | 719  | 216  |
| Growth 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 |
| Initial Bse: | 12   | 44   | 30   | 215  | 40   | 470  | 721  | 961  | 12   | 30   | 719  | 216  |
| Added Vol:   | 0    | 0    | 0    | 5    | 0    | 9    | 5    | 0    | 0    | 0    | 0    | 2    |
| PasserByVol: | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Fut: | 12   | 44   | 30   | 220  | 40   | 479  | 726  | 961  | 12   | 30   | 719  | 218  |
| User 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 |
| PHF 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 |
| PHF Volume:  | 12   | 44   | 30   | 220  | 40   | 479  | 726  | 961  | 12   | 30   | 719  | 218  |
| Reduct Vol:  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced Vol: | 12   | 44   | 30   | 220  | 40   | 479  | 726  | 961  | 12   | 30   | 719  | 218  |
| PCE 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 |
| MLF 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 |
| FinalVolume: | 12   | 44   | 30   | 220  | 40   | 479  | 726  | 961  | 12   | 30   | 719  | 218  |
| OvlAdjVol:   | 0    |      |      |      |      |      |      |      |      |      |      |      |

Saturation Flow Module:

|             |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane:   | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes:      | 0.28 | 1.02 | 0.70 | 1.69 | 0.31 | 2.00 | 2.00 | 1.98 | 0.02 | 1.00 | 2.00 | 1.00 |
| Final Sat.: | 474  | 1740 | 1186 | 2877 | 523  | 3400 | 3400 | 3358 | 42   | 1700 | 3400 | 1700 |

Capacity Analysis Module:

|             |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat:    | 0.03 | 0.03 | 0.03 | 0.08 | 0.08 | 0.14 | 0.21 | 0.29 | 0.29 | 0.02 | 0.21 | 0.13 |
| OvlAdjV/S:  | 0.00 |      |      |      |      |      |      |      |      |      |      |      |
| Crit Moves: | **** | **** |      |      |      |      | **** | **** |      |      |      |      |