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Addendum to Final Program Environmental Impact Report No. 1052

North Costa Mesa High-Rise Residential Projects

Update to:
585 Anton Boulevard
Site 4 – The Symphony Towers
City of Costa Mesa

October 2014

Prepared for:
Lead Agency
City of Costa Mesa
77 Fair Drive
Costa Mesa, California 92628
Contact Person:
Minoo Ashabi
Principal Planner
Planning Division
(714) 754-5610

Prepared by:
CAA Planning
65 Enterprise, Suite 130
Aliso Viejo, California 92656
Contact Person:
Shawna L. Schaffner
Chief Executive Officer
(949) 581-2888

Contents

Executive Summary 1
A. Environmental Impact Report Addendum 1
B. Statutory Requirements 2
2006 Program EIR Project Description 5
A. Location 5
B. Background 5
C. Existing Setting – Site 4 11
D. Description of the Updated Project – Site 4 11
E. Approvals Contemplated 25
Environmental Analysis 27
A. Aesthetics 27
B. Air Quality 37
C. Geology and Soils 40
D. Greenhouse Gas Emissions 42
E. Hazards and Hazardous Materials 45
F. Hydrology and Water Quality 47
G. Land Use and Relevant Planning 51
H. Noise 52
I. Population, Housing, and Employment 53
J. Public Services 54
K. Aviation 55
L. Transportation and Circulation 57
M. Utilities 64
N. Mandatory Findings of Significance 66
Conclusion 67
Inventory of Applicable Mitigation Measures 68
Environmental Checklist 69
Environmental Factors Potentially Affected: 70

Appendices

A – Climate Change and Greenhouse Gas Emissions Impact Analysis dated July 25, 2014
B – Traffic Impact Analysis Report dated July 24, 2014

Exhibits

Exhibit 1 – Regional Map 6
Exhibit 2 – Vicinity Map 7
Exhibit 3 – North Costa Mesa Residential High-Rise Projects Map 8
Exhibit 4 – 2006 Site Plan 9
Exhibit 5 – Project Site Photos 1 12
Exhibit 6 – Project Site Photos 2 13
Exhibit 7 – Restaurant Photos 14
Exhibit 8 – View of South East End Parking Lot 15
Exhibit 9 – Surrounding Views 1 16
Exhibit 10 – Surrounding Views 2 17
Exhibit 11 – Updated Project Site Plan 18
Exhibit 12 – Proposed Unit Plan 20
Exhibit 13 – Artist Rendering 22
Exhibit 14 – Ground Level Landscape Plan 23
Exhibit 15 – Podium Level Landscape Plan 24
Exhibit 16 – View of The Plaza Tower 28
Exhibit 17 – Project Perspective – Conceptual Perspective from Anton Boulevard 29
Exhibit 18 – Project Perspective – Conceptual Perspective from Corner of Anton Boulevard and Avenue of the Arts 30
Exhibit 19 – Project Perspective – Conceptual Perspective View of Avenue of the Arts 31
Exhibit 20 – Project Elevations – Building A, West Elevation 32
Exhibit 21 – Project Elevations – Building A, East Elevation 33
Exhibit 22 – Project Elevations – Building B, West Elevation 34
Exhibit 23 – Artist Rendering 36
Exhibit 24 – Solar Study 38
Exhibit 25 – Proposed Site Plan 59
Exhibit 26 – Year 2017 AM Peak Hour Cumulative Plus Project Traffic Volumes 61
Exhibit 27 – Year 2017 PM Peak Hour Cumulative Plus Project Traffic Volumes 62

Tables

Table 1 – Project Greenhouse Gas Emissions (Unmitigated) – Entitled Project - 2006 Program EIR Site 4 43
Table 2 – Project Greenhouse Gas Emissions (Unmitigated) – Updated Site 4 Proposed Project 43
Table 3 – Existing Plus Project Peak Hour Intersection Capacity Analysis 60
Table 4 – Parking Data 63

Executive Summary

The Final Program Environmental Impact Report (Program EIR) for the North Costa Mesa High-Rise Residential Projects was certified on November 21, 2006. The project consists of five individual project sites (Sites 1 through 5) seeking to add a total of 1,269 high-rise residential units and 8,350 square feet of commercial uses, together with existing or previously approved hotel, office, and museum uses (or a combination of those uses). Site 4 – Symphony Towers is the subject of this addendum and is located at 585 Anton Boulevard on the southeast corner of Anton Boulevard and Avenue of the Arts in northeast Costa Mesa and within the North Costa Mesa Specific Plan area. All five project sites identified in the Program EIR are located within the City of Costa Mesa, north of the I-405 Freeway, and generally bounded by Sunflower Avenue to the north, Bristol Street to the west, Sakioka Drive to the east, and the I-405 Freeway to the south.

This document constitutes an Addendum to the Program EIR for the North Costa Mesa High-Rise Residential Projects, SCH #2006011077 (Addendum), as certified by the City of Costa Mesa. The Addendum reviews the environmental impacts identified in the Program EIR in relation to changes to the project since the Program EIR was certified.

The project applicant has submitted an application for a project with reduced building intensity and building heights. The previously approved high-rise towers have been eliminated from the project and two 6-story structures are now proposed with a reduction in residential units from 484 to 393 and a reduction in retail uses from 6,000 to 4,104 square feet.

The 6-story structures will be connected at the ground level by a shared entry plaza and will occupy generally the same footprint as the approved project. The proposed project includes 731 on-site parking stalls within three levels, including one subterranean level and two above ground levels. In addition, a parking structure leg extension will be built in an existing surface parking lot on the southeast corner of the site, adjacent to the Stearns and Experian office buildings. This parking structure extension, which was analyzed in the 2006 Program EIR, will provide 220 parking stalls.

As described in this Addendum, there are no new significant impacts or any increases in the severity of the impacts previously identified in the Program EIR. There are no substantial changes proposed in the project that require major revisions of the previous Program EIR. Therefore, in accordance with the California Environmental Quality Act (CEQA) §15164, this Addendum to the previously certified North Costa Mesa High-Rise Residential Projects Program EIR is the appropriate environmental document for the minor revisions proposed to Site 4. An Initial Study Checklist, pursuant to CEQA, is included and found on page 69 of this Addendum. The Initial Study and the Addendum fully comply with all relevant CEQA standards to determine if the EIR remains adequate to address the impacts resulting from the project pursuant to CEQA Guidelines §15164.

A. Environmental Impact Report Addendum

Pursuant to §15367 of the CEQA Guidelines, the City of Costa Mesa is the Lead Agency for this project. As defined, the lead agency has the principal responsibility for carrying out or approving a project. This Addendum updates the progress made in the project, as certified, and serves to update the information in the Program EIR as contemplated in CEQA Guidelines §15164. This document will also be used to acknowledge project modifications to the site.

The CEQA Guidelines (*California Code of Regulations* §15000, et seq.) authorize the use of an Addendum for the purpose of making minor or technical changes, as long as these changes do not rise to

the level of requiring a subsequent or supplemental EIR pursuant to CEQA Guidelines §15162. CEQA Guidelines §15164 states:

> a) *The lead agency or a responsible agency shall prepare an addendum to a previously certified EIR if some changes or additions are necessary but none of the conditions described in Section 15162 calling for preparation of a subsequent EIR have occurred.*

B. Statutory Requirements

Section 21166 of the California Environmental Quality Act (CEQA, *Public Resources Code* §21000, et seq.) sets the standard to determine whether another EIR should be prepared when an original EIR has been prepared. Section 21166 states:

> *When an environmental impact report has been prepared for a project pursuant to this division, no subsequent or supplemental environmental impact report shall be required by the lead agency or by any responsible agency, unless one or more of the following events occurs:*
>
> (a) *Substantial changes are proposed in the project which will require major revisions of the environmental impact report.*
> (b) *Substantial changes occur with respect to the circumstances under which the project is being undertaken which will require major revisions in the environmental impact report.*
> (c) *New information, which was not known and could not have been known at the time the environmental impact report was certified as complete, becomes available.*

Section 21166 is further explained in the CEQA Guidelines at §15162 as follows:

> (a) *When an EIR has been certified or a negative declaration adopted for a project, no subsequent EIR shall be prepared for that project unless the lead agency determines, on the basis of substantial evidence in the light of the whole record, one or more of the following:*
>
> (1) *Substantial changes are proposed in the project which will require major revisions of the previous EIR or Negative Declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;*
> (2) *Substantial changes occur with respect to the circumstances under which the project is undertaken, which will require major revisions of the previous EIR or Negative Declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or*
> (3) *New information of substantial importance which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the Negative Declaration was adopted, shows any of the following:*
>
> (A) *The project will have one or more significant effects not discussed in the previous EIR or negative declaration;*
> (B) *Significant effects previously examined will be substantially more severe than shown in the previous EIR;*
> (C) *Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or*
> (D) *Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant*

effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

(b) *If changes to a project or its circumstances occur or new information becomes available after adoption of a negative declaration, the lead agency shall prepare a subsequent EIR if required under subsection (a). Otherwise, the lead agency shall determine whether to prepare a subsequent negative declaration, an addendum, or no further documentation.*

(c) *Once a project has been approved, the lead agency's role in project approval is completed, unless further discretionary approval on that project is required. Information appearing after an approval does not require reopening that approval. If after the project is approved, any of the conditions described in subsection (a) occurs, a subsequent EIR or negative declaration shall only be prepared by the public agency which grants the next discretionary approval for the project, if any. In this situation no other Responsible Agency shall grant an approval for the project until the subsequent EIR has been certified or subsequent negative declaration adopted.*

(d) *A subsequent EIR or subsequent negative declaration shall be given the same notice and public review as required under Section 15087 or Section 15072. A subsequent EIR or negative declaration shall state where the previous document is available and can be reviewed.*

The key to §21166 and §15162 is to determine if any circumstances have changed enough to justify repeating a substantial portion of the environmental documentation process. If conditions do not justify a new or supplemental EIR, but minor additional or technical changes (such as traffic updates, additional mitigation measures, or project improvements) are appropriate to keep the document current and useful, an agency may prepare an Addendum (CEQA Guidelines §15164). This Addendum will document the character of any changes or additions to support the determination to prepare an Addendum. It will also provide an opportunity to evaluate all components of §15162 to determine if the Program EIR still reflects the full scope of the environmental impact. Where appropriate, citations to the Program EIR will be made, and assumptions made in the Program EIR will be evaluated for continuing validity.

The §21166 test is the prevailing authority under state law on the question of whether a new environmental document is necessary. This test is a substantive one to determine the document's continuing accuracy and utility. No new information has been provided since the implementation of the Program EIR, and no substantial changes are proposed in the project; therefore, there are no substantial changes in the circumstances for the implementation of the project. The reduction in building height and number of proposed units and the addition of 14,317 square feet of ancillary use and 4,104 square feet of resident-serving retail use do not rise to the level of a substantial change under §21166, because these refinements are minor in nature. Therefore, the Program EIR, as certified, remains adequate and complete.

North Costa Mesa High-Rise Project Approvals

The North Costa Mesa High-Rise Projects required the following review and discretionary approvals as described in the Program EIR:

- Certification of a Final Environmental Impact Report
- General Plan Amendment GP-06-02
- North Costa Mesa Specific Plan (NCMSP) Amendment SP-06-02 – to allow residential development
- Zoning Code Amendments

- Airport Land Use Commission consistency finding
- Federal Aviation Administration (FAA) Part 77 – No Hazard Determination
- Preliminary/Final Master Plans
- Vesting Tentative Tract/Parcel Maps
- Orange County Sanitation District
- Santa Ana Regional Water Quality Control Board for dewatering and construction activities
- 2013 Addendum to the 2006 Program Environmental Impact Report for Site-4

Site 4 – Symphony Towers has received the following discretionary approvals:

- North Costa Mesa Specific Plan and General Plan Amendment – City Council, January 16, 2007
- Determination of No Hazard to Air Navigation – FAA October 17, 2006
- Final Master Plan (PA-07-18) and Vesting Tentative Map (VT-17207) – City Council, October 8, 2007
- Project Time Extensions – approved, April 3, 2009 April 11, 2011, and May 13, 2013

2006 Program EIR Project Description

The following project description is based on information in the North Costa Mesa High-Rise Projects Program EIR. Modifications to the project (Symphony Towers – Site 4) are included in this Addendum to update the project as proposed.

A. Location

The five project sites that comprise the North Costa Mesa High Rise EIR are located within the City of Costa Mesa, north of the I-405 Freeway, and generally bound by Sunflower Avenue to the north, Bristol Street to the west, Sakioka Drive to the east, and the I-405 Freeway to the south, as shown on Exhibit 1 – Regional Map. The specific addresses are 3400/3420 Bristol (Site 1 – Segerstrom Town Center), 605 Town Center (Site 2 – Orange County Museum of Art), 580 Anton Boulevard (Site 3 – The Californian at Town Center), 585 Anton Boulevard (Site 4 – Symphony Towers), and 675 Anton Boulevard (Site 5 – Pacific Arts Plaza).

These five projects are located within the North Costa Mesa Specific Plan (NCMSP) area and consist of vacant land, office, hotel, and retail centers located in the City of Costa Mesa, in the County of Orange, California. The City of Santa Ana is north of the project across Sunflower Avenue. The John Wayne Airport is located approximately 0.93 to 1.4 miles to the southeast, as shown on Exhibit 2 – Vicinity Map.

B. Background

The Program EIR identified the project area as a highly urbanized portion of the City, east of South Coast Plaza. Development in the area is varied, and includes the Plaza Tower and the Center Tower high-rise office buildings, commercial, residential, hotel, and cultural uses including the Orange County Performing Arts Center and the South Coast Repertory. In January 2003, the City of Costa Mesa adopted the General Plan Environmental Impact Report that analyzed an increase of 1,892 dwelling units and 12,643,695 square feet of non-residential uses.

The five individual sites identified as Sites 1 through 5, taken together, will include a maximum of 1,269 high-rise residential units and accessory retail and commercial development, for a maximum of 8,350 square feet of commercial uses, together with existing or previously approved hotel, office, and museum uses (or a combination of those uses). As detailed in the NCMSP, property owners, at their election, may convert existing commercial entitlements to residential entitlements, up to this maximum of 1,269 high-rise residential units, as long as the applicable trip budgets set forth in the NCMSP are not exceeded. An aerial of the vicinity is depicted on Exhibit 3 – North Costa Mesa Residential High-Rise Projects Map. The five sites are depicted in a site specific aerial on Exhibit 4 – 2006 Site Plan.

Site 1 – Segerstrom Town Center

The proposed project includes two high-rise buildings within Segerstrom Town Center, located at 3400/3420 Bristol Street, at the southeast corner of Sunflower Avenue and Bristol Street. The project site is approximately 3.3 acres. The proposed project will include a total of 275 residential units, to be built in tandem with projects previously approved by the City of Costa Mesa, including a 200-key high-rise hotel building. The hotel building will include a maximum of 50 residential condominiums on the upper levels of the hotel. Also, a previously entitled high-rise office building will be constructed on the site, modified to include a maximum of 225 residential condominiums. The office building will be no more than 233,170 square feet. This site can be developed on a sliding scale between residential and commercial uses, so long as the established trip budget for Site 1 is not exceeded.

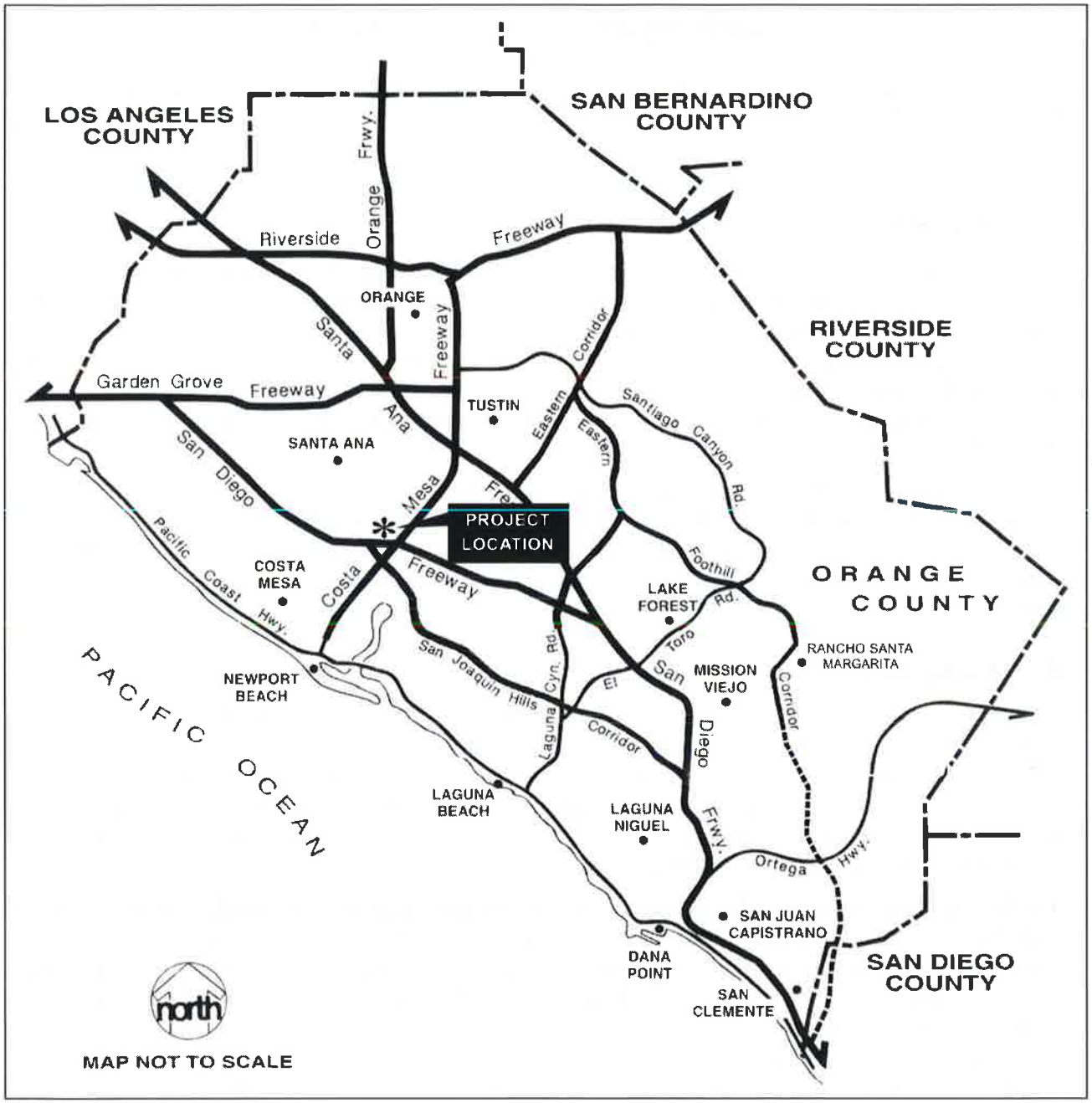


Exhibit 1 – Regional Map

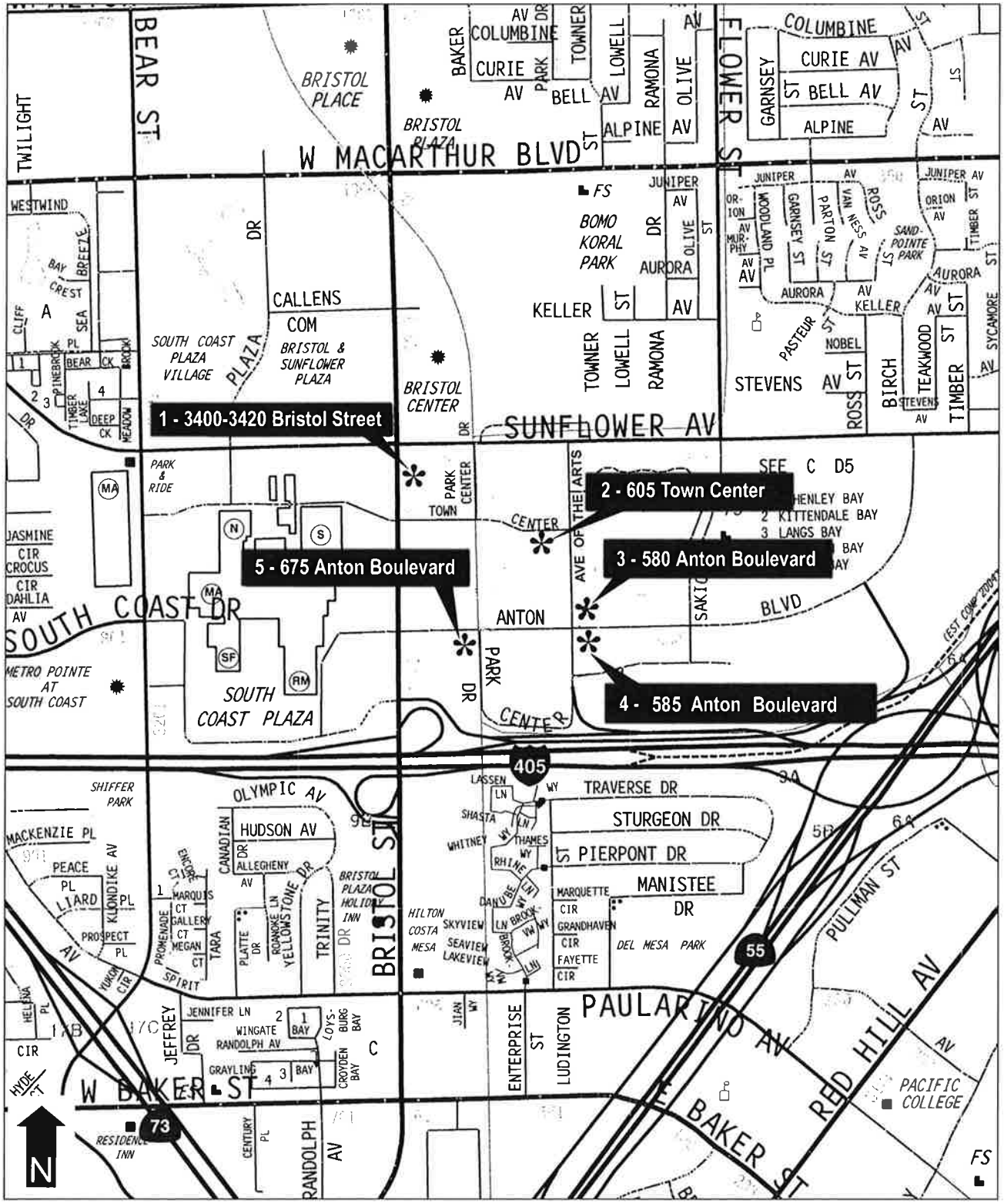


Exhibit 2 – Vicinity Map

Exhibit 3 – North Costa Mesa Residential High-Rise Projects Map

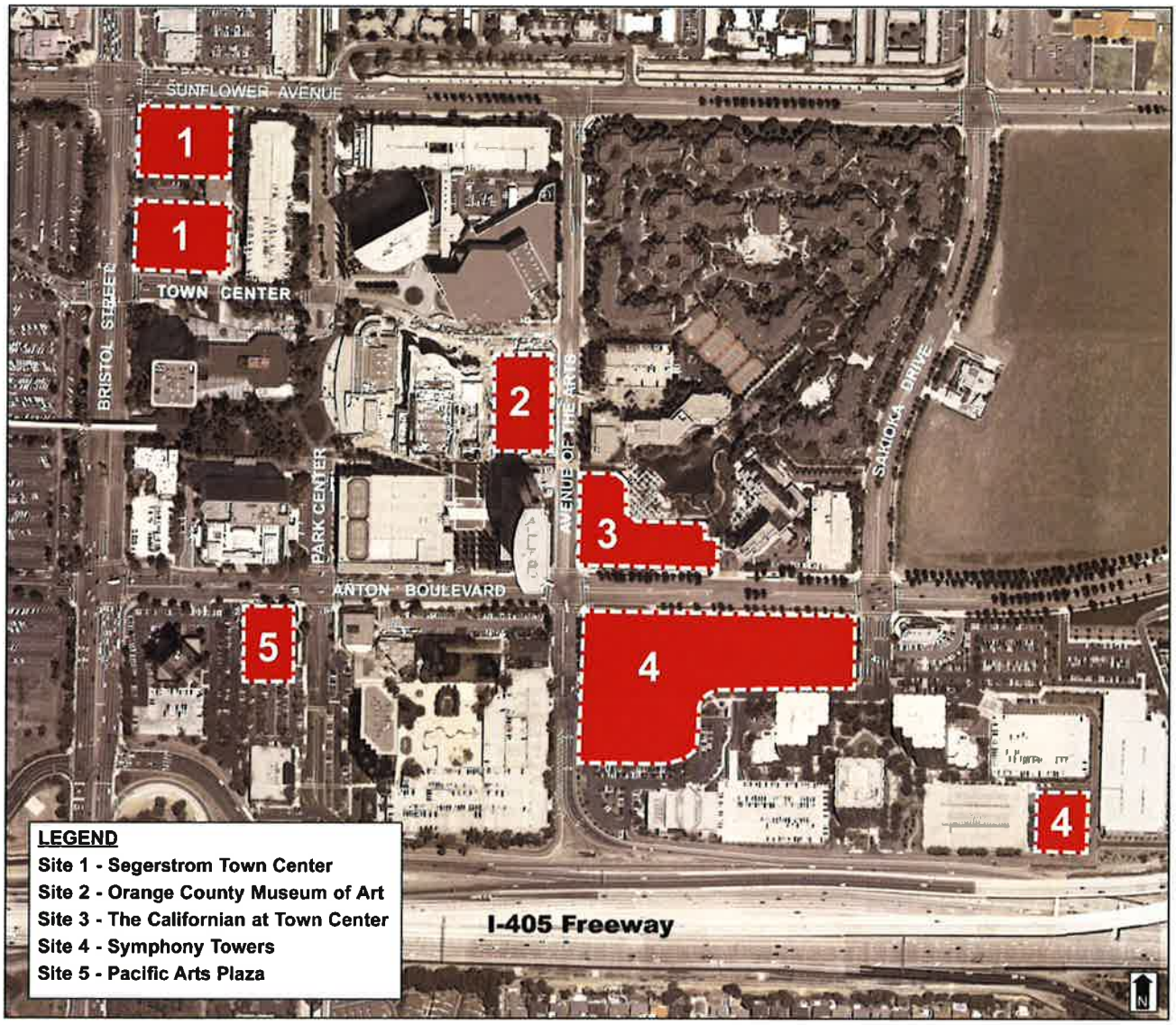


Exhibit 4 – 2006 Site Plan

Site 2 – Orange County Museum of Art

The project site is located at 605 Town Center, south of the Orange County Performing Arts Center and east of Segerstrom Concert Hall, north of 600 Anton office tower, and is approximately 1.64 acres. The proposed project includes a preliminary master plan for the 140,000-square-foot Orange County Museum of Art, previously approved by the City of Costa Mesa with 80 high-rise residential units to be built over a portion of the museum. The building will be approximately 25 stories, with the museum occupying the first three to four stories.

Site 3 – The Californian at Town Center

The project site is located at 580 Anton, at the northeast corner of Anton Boulevard and Avenue of the Arts, and is approximately 2 acres. The proposed project as analyzed in the Program EIR includes a final master plan for 250 residential units in two 25-story high-rise residential towers and 2,350 square feet of residential-serving retail uses.

In 2013 an addendum to the 2006 Program EIR was approved to incorporate an updated project description for Site 3. The updated project for Site 3 eliminated the proposed high-rise residential towers, which were replaced with a single mid-rise residential building, 87 feet AGL, consisting of five levels of residential units, and three levels of parking, located on Level 1, Level 2, and a subterranean level. The project also included the elimination of 2,350 square feet of resident-serving retail and a reduction of parking spaces from 535 to 438. The unit mix and number remained unchanged at 250 units.

Site 4 – Symphony Towers

The project site is located at the southeast corner of Anton Boulevard and Avenue of the Arts at 585 Anton Boulevard, and is approximately 4.86 acres. The development proposal features two 24-story high-rise towers, two 6-story mid-rise buildings, and two 5-story parking structures. A total of 484 residential condominiums and 6,000 square feet of ground-floor retail are proposed. The project will include two parking structures (one 3-level structure and one 4-level structure) to provide replacement parking for loss of existing paved parking spaces. These structures would be built in time to ensure that adequate parking is provided for the displaced office parking. The mixed-use development would be configured in two pods and would necessitate the demolition of two existing restaurants totaling 17,529 square feet (including outdoor seating area).

Site 5 – Pacific Arts Plaza

The project site is located at 675 Anton Boulevard at the southwest corner of Anton Boulevard and Park Center Drive, and is approximately 1.3 acres. The proposed project includes the development of a high-rise residential tower with up to 180 residential units. An existing 67,450-square-foot, 5-story office building on the site would be demolished as part of this project.

This Addendum focuses on the potential environmental impacts as a result of the update to Site 4 – Symphony Towers (Site-4) as presented below to the project analyzed in the Program EIR.

C. Existing Setting – Site 4

The North Costa Mesa High-Rise Residential Projects Program EIR was certified in 2006, and describes the project as five sites, each with its own Master Plan. As shown on the 2006 Project Plan, Site 4 is located at 585 Anton Boulevard, on the southeast corner of Anton Boulevard and Avenue of the Arts, and encompasses 4.86 acres. The project site is currently occupied by three surface parking lots and two restaurant buildings, as shown on Exhibit 5 and Exhibit 6 (Project Site Photos), including views from Anton Boulevard at Avenue of the Arts, Anton Boulevard at mid-block between Sakioka Drive and Avenue of the Arts, and from Anton Boulevard at Sakioka Drive. Both on-site restaurant buildings are vacant, as shown on Exhibit 7 – Restaurant Photos. Located across the internal driveway, connecting Sakioka Drive to Avenue of the Arts and providing access to the project site, are an existing 24 Hour Fitness, several commercial office buildings, parking structures, and surface parking lots. Site 4 includes an existing surface parking lot located at the southeast end of the property, adjacent to the Stearns and Experian office buildings, as shown on Exhibit 8– View of South East End Parking Lot.

The area surrounding the project is built-out with commercial office, retail, hotel uses, and residential uses. The property located across Avenue of the Arts to the west contains commercial retail uses, including a TGI Friday. The property located across Anton Boulevard to the north contains commercial retail uses and a hotel. The property across the internal drive contains commercial office buildings, as shown on Exhibit 9 and Exhibit 10 (Surrounding Views).

D. Description of the Updated Project – Site 4

As indicated on page 10, the original project analyzed in the 2006 Program EIR for Site 4 included the demolition of the existing two restaurant buildings, the conversion of the un-built hotel entitlement and the construction of two high-rise and two mid-rise residential towers with a total of 484 units. The project also included 6,000 square feet of retail uses, parking structures, and resident-serving amenities. The maximum building height was identified as 306 feet AGL. Following approval of the 2006 Program EIR, the City approved a 2007 Master Plan that reduced the building height for the two towers to 272 and 172 feet AGL. The project site is identified in the Costa Mesa General Plan as Urban Center Commercial, and is located in Area 6 of the NCMSP.

The project applicant has submitted an application for a project with reduced building intensity and building heights. The high-rise towers have been eliminated from the project, and two 6-story structures are now proposed at a building height of 66 feet AGL with a roof segment that extends 74'10" over the lobby, the elevator, and stairway areas in Building A and Building B. The project would reduce the number of residential units by 91 from 484 to 393. The retail uses have also been reduced from 6,000 to 4,104 square feet. In addition to the on-site project design updates, the proposed project includes a median modification to provide an exclusive left-turn lane into the site along Anton Boulevard, and conversion of the eastbound merge lane into an exclusive right-turn lane. Egress to the site will be provided via an exclusive left-turn lane and right-turn lane.

The six-story structures will be connected at the ground level by a shared entry plaza and will occupy generally the same footprint as the approved project. Exhibit 11 – Updated Project Site Plan depicts the project analyzed in this addendum. The proposed structures will have a combined gross floor area (GFA) of 491,331 square feet, inclusive of 17,529 square feet of resident-serving amenity space and 4,104 square feet of retail. The updated plan includes 31 loft units around the perimeter of the structures and 362 internal apartment units. Several internal courtyards are proposed featuring active and passive amenities such as pathways, benches, landscaping, pools, and a spa.

Entrance point from Sakioka Drive

Restaurant at mid-block

Exhibit 5 – Project Site Photos 1

View across Anton Boulevard at mid-block between Avenue of the Arts and Sakioka Drive

View from Anton Boulevard looking toward Avenue of the Arts

Exhibit 6 – Project Site Photos 2

Anton Boulevard and Avenue of the Arts

Anton Boulevard at mid-block

Exhibit 7 – Restaurant Photos

Parking Structure Leg Extension Site

Exhibit 8 – View of South East End Parking Lot

View across Avenue of the Arts

Restaurant and retail uses across Sakioka Drive

Exhibit 9 – Surrounding Views 1

View across Anton Boulevard looking toward Avenue of the Arts

View across Anton Boulevard at mid-block

Exhibit 10 – Surrounding Views 2

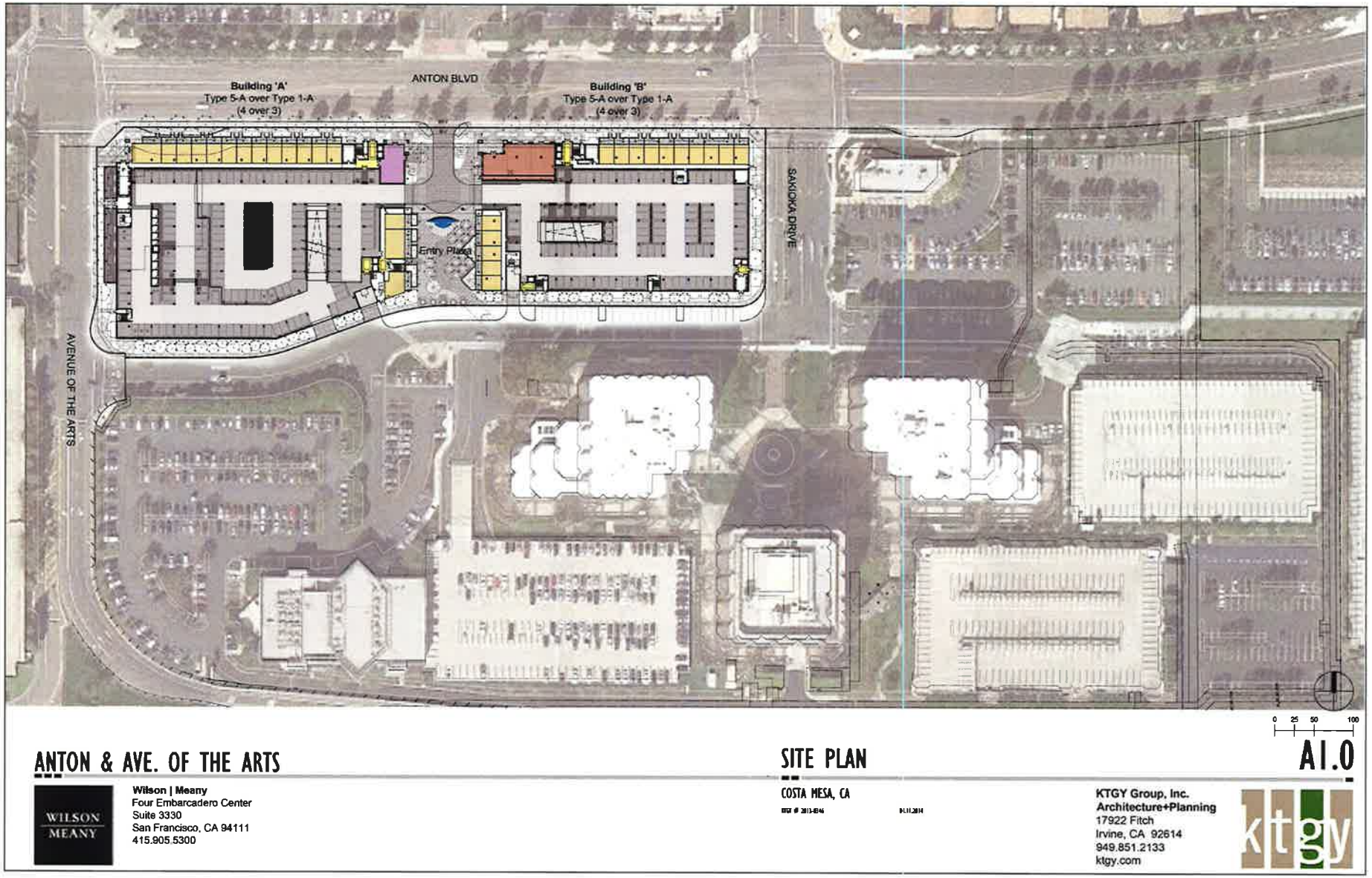


Exhibit 11 – Updated Project Site Plan

731 parking stalls will be provided on-site within three levels including one subterranean level and two above ground levels. In addition, a parking structure leg extension will be built in an existing surface parking lot on the southeast corner of the site, adjacent to the Stearns and Experian office buildings. This parking structure extension, which was analyzed in the 2006 Program EIR, will provide a net increase of 220 parking stalls. A more detailed description of the individual project components including the housing units, parking, architectural features, and building amenities are provided on the following pages.

As analyzed in the 2006 PEIR, the project will include the demolition of the existing restaurants and surface parking lot. The updated project design is considered by the project applicant to be more economically feasible and in line with the area's housing demand. To date, none of the fixe sites contemplated in the 2006 PEIR have been built-out; however, in 2013, the City approved an updated design for Site 3 which included a mid-rise residential structure in place of the previously approved high-rise residential project.

Housing Units

The proposed project will incorporate two distinct housing styles: lofts (Type I development) ranging in size from 794 square feet to 1,359 square feet and apartments (Type V Development), which will range in size from 757 square feet to 1,392 square feet, as shown on Exhibit 12 – Proposed Unit Plan. The lofts are one- and two-bedroom 2-story units that will have interior access from each building's second level. The lofts flank the exterior of the building along Anton Boulevard and the buildings' entry plaza. The lofts located along Anton Boulevard will be designed with direct patio access from the ground level through the entrance plazas at Anton Boulevard and the internal drive at the south side of the site. Each loft along Anton Boulevard will feature a patio with direct access to the unit from outside the building. The lofts that line the breeze way will feature a patio without direct access to the unit from outside the building. The apartments are located on Levels 3 through 6 and are one-bedroom and two-bedroom units. Each apartment will feature a balcony facing either the exterior of the building or the courtyard.

Parking

The proposed project includes an on-site three-level parking garage, which will have resident and guest access directly from Anton Boulevard and a resident-only access from the internal drive. The proposed parking garage will be located on Levels 1 and 2 within each building, and will share a subterranean parking level connecting the two buildings. On-site parking capacity will total 731 spaces, which exceeds the City's required parking standard of 722 spaces, and includes 611 resident spaces and 111 guest spaces.

The 2006 Program EIR identifies a separate property (531 Anton Boulevard) included as part of Site 4 at the southeast corner of the block, adjacent to the I-405 Freeway. Development of this property will remain as originally proposed and approved per PA-07-29, with an extension to the existing parking structure. The proposed extension would provide an additional three stories to an existing parking structure, providing a minimum of 220 parking spaces.

Project Data

Site Area Information

Gross Site Area	± 4.86 AC
Net Site Area	± 4.84 AC
Dwelling Units	393 DU
Density	±80.9 DU/AC

Project Data / Unit Mix (Combined)

Unit Type	Description	Unit Area (GSF)	Balcony Area (GSF)	Units Per Level: Floor 1-2	Floor 3	Floor 4	Floor 5-6	Unit Mix: 1bd	2bd	Net Rentable SF	%
Plan 1-0	1bd/1ba Loft	794		28				28		22.232	5.9%
Plan 1-1	1bd/1ba	757	80		41	36	42	166		125.662	33.6%
Plan 1A	1bd/1ba Alt. trash room	979	105		3	3	3	10		9.790	2.6%
Plan 1C	1bd/1ba Alt. trash room	835	80		1	1	1	4		3.340	0.9%
Plan 1D	1bd/1ba Alt. trash room	900	80		1	2	2	6		5.400	1.4%
Plan 1E	1bd/1ba Corner	750	177		1	1	1	4		3.000	0.8%
Plan 1F	1bd/1ba Alt. trash room	769	80		6	6	6	21		16.149	4.3%
Plan 2-0	2bd/2ba Loft	1359		3					3	4.077	1.1%
Plan 2-1	2bd/2ba	1164	105		14	17	18		69	80.316	21.5%
Plan 2-2	2bd/2ba Inside Corner	1245	140		7	8	10		35	43.575	11.6%
Plan 2A	2bd/2ba	1205	105		1	1	1		4	4.820	1.3%
Plan 2B	2bd/2ba	1356	105		7	7	7		28	37.968	10.2%
Plan 2C	2bd/2ba	1392	105		1	1	1		4	5.568	1.5%
Plan 2D	2bd/2ba	1106	80		3	3	3		11	12.166	3.3%
Totals				31	86	86	95	239	154	374.063	100.0%
								61%	39%		
								393		951.8	Avg. Unit Size

Area Type	Level: Floor 1-2	Floor 3	Floor 4	Floor 5-6	Total
Unit	23,806	78,173	78,173	87,720	357.041
Leasing	1,554				1.554
Amenity	0	6,989	7,328		14.317
Retail	4,104				4.104
Gross Floor	46,847	111,121	111,121	111,121	491.331
Building Efficiency	**54.1%**	**76.6%**	**76.9%**	**78.9%**	**76.7%**

Parking Data Combined

Required Parking	
393 units x 1.5 sp./unit	590 spaces
4037 Retail SF x 5 sp./1000 sf	21 spaces
Total Required	611 spaces

Required Guest Parking		
0.5 sp. Per unit for first 50 units	0.5 x 50	25
0.25 sp. Per unit for 50+ units	.25 x 343	86
Total Guest Spaces	111 spaces	

Total Required Parking	722 spaces

Provided Parking	
Tandem	15 spaces
Regular	699 spaces
Compact	17 spaces

Total Provided Parking	731 spaces

Parking Delta	9 Extra Spaces

ANTON & AVE. OF THE ARTS

PROJECT DATA

A0.2

WILSON MEANY

Wilson | Meany
Four Embarcadero Center
Suite 3330
San Francisco, CA 94111
415.905.5300

COSTA MESA, CA

KTGY # 2013-046 04.11.2014

KTGY Group, Inc.
Architecture+Planning
17922 Fitch
Irvine, CA 92614
949.851.2133
ktgy.com

Exhibit 12 – Proposed Unit Plan

Architectural Features

The proposed building is designed with an articulated façade made of stone veneer, stucco, and metal to provide aesthetic texture, as shown on Exhibit 13 – Artist Rendering. The proposed residential buildings will incorporate two vertical focal points along the Anton Boulevard elevation to complement the existing high-rise office tower at 3301 Avenue of the Arts (Plaza Tower), located at the northeast corner adjacent to the proposed project.

The proposed project includes landscaping along the buildings' frontage as well as in the entry plaza and courtyards, as shown on Exhibit 14 – Ground Level Landscape Plan. The proposed Site Plan identifies two buildings, Building A, situated towards Avenue of the Arts, and Building B, situated towards Sakioka Drive. The two residential buildings are adjoined by a subterranean level and the ground floor level, for a shared subterranean parking garage and entry plaza. Building A and Building B are connected at the podium level (Level 3) by an open air corridor for resident access between the two buildings, as shown on Exhibit 15 – Podium Level Landscape Plan.

Building Amenities

The project includes 4,104 square feet of retail space, which have been incorporated into the residential buildings. The proposed retail space will be located on the first and second levels on the north side of each building, with access maintained at the ground level through the entry plaza. The retail space provided may include uses such as a cafés, drugstores, or coffee shops. Although the primary goal of retail would be to serve the building residents, public access will be offered from Anton Boulevard.

The proposed residential buildings have incorporated 14,317 square feet of amenity space. Amenities may include uses such as workout rooms or other services for resident-related needs, to be determined at project implementation. Amenity space would be located on the third and fourth levels of each building. Each building will be equipped with a mailroom located on the ground level between the retail space and the lofts, and with access provided from the building's interior.

In addition to mailrooms, and amenity and retail space, the residential buildings include four courtyards with pools and a spa, two dog runs, one for large dogs and a second for smaller dogs, a dog wash, and a bike spa. The dog runs include a synthetic turf with metal benches and low metal fencing. The dog runs are located on the west side of Building A along Avenue of the Arts, and will include a dog wash area. In addition to the dog runs, the updated plan proposes a bike spa for the storage and general maintenance of residents' bikes. The dog runs, the dog wash, and the bike spa will be accessed from within the building and will not be accessible by the public.

Exhibit 13 – Artist Rendering

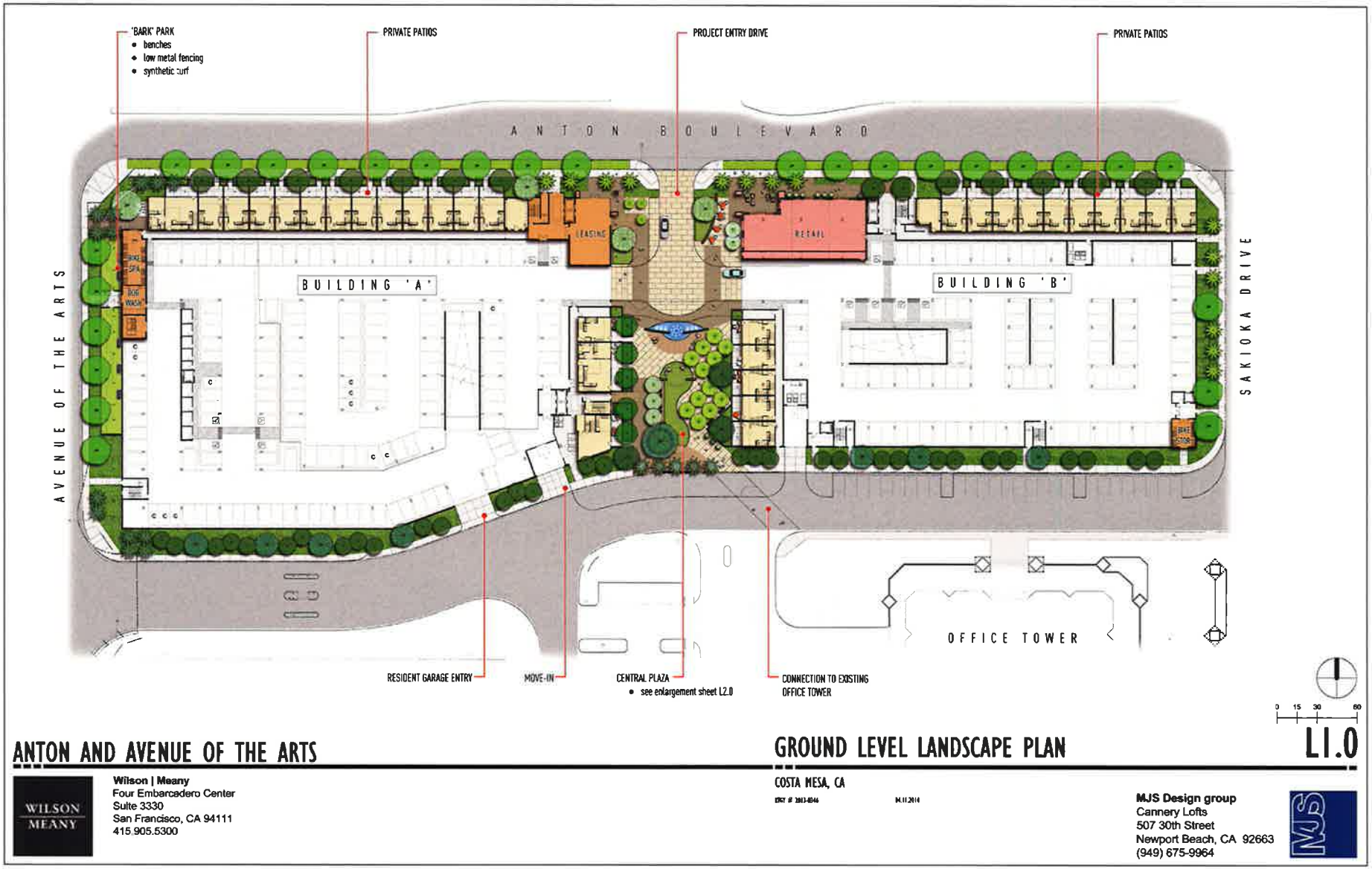


Exhibit 14 – Ground Level Landscape Plan

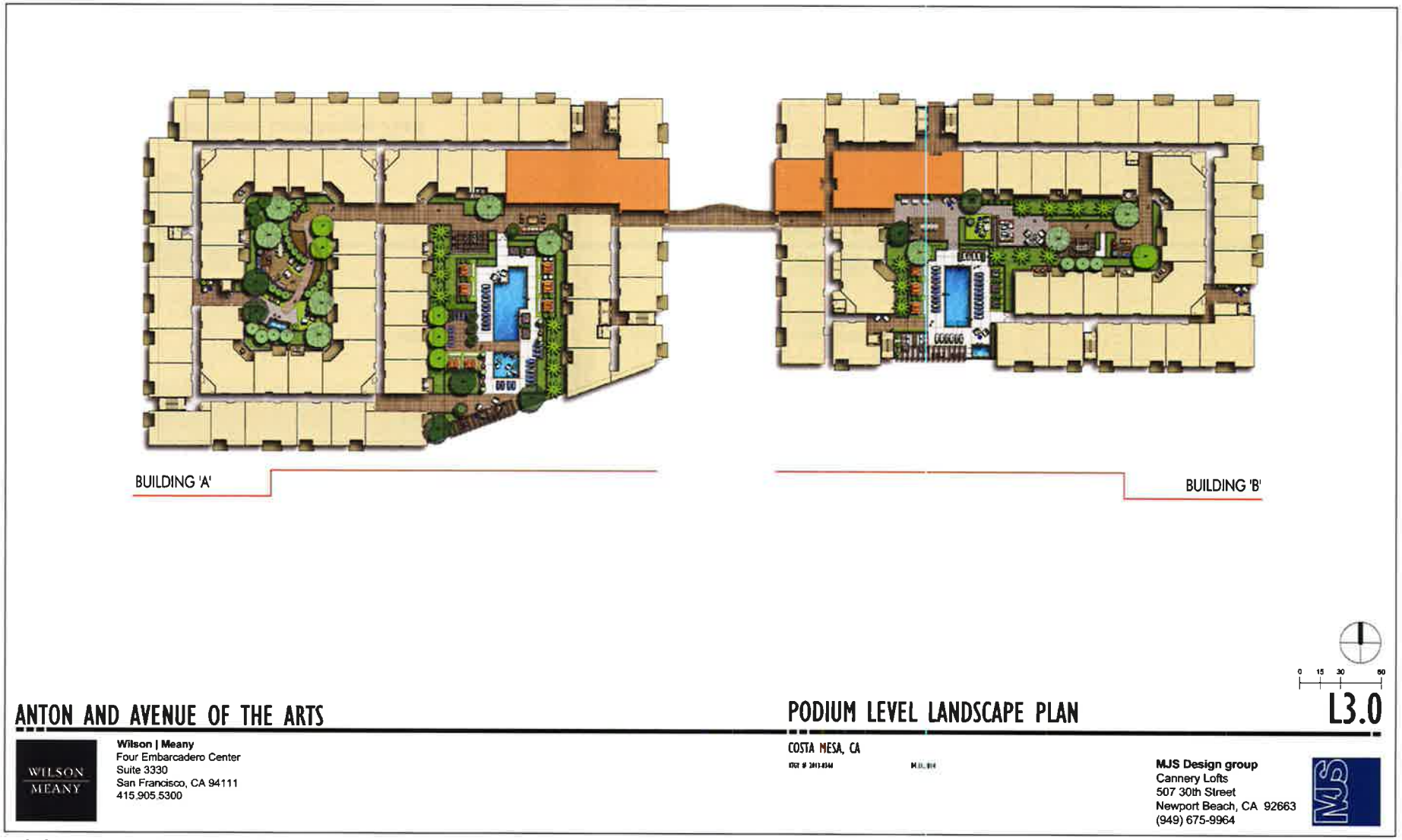


Exhibit 15 – Podium Level Landscape Plan

Utility and Pedestrian Easements/Encroachments

The project site currently maintains a utility. However, the updated project cannot maintain this easement due to the location of the new buildings. The project will carry a condition of approval to provide an approval from the easement holder to relocate the easement or vacate it for the new construction.

A Landscape and Sidewalk easement along Anton Boulevard was recorded in 1984. The easement envisioned a wide parkway for an office park development. The project proposes a design more appropriate for residential uses, which include patios, stoops, and landscape walls. City Council approval will be required to reduce the easement from 25 feet to 7 feet to accommodate the project design.

In addition, an existing minimum 20-foot perimeter open space is designated by the Planned Development Commercial zone. The proposed project encroaches on the perimeter along Avenue of the Arts and Anton Boulevard. The NCMSP allows encroachment into building setbacks along Anton Boulevard for pedestrian-serving commercial and mixed use buildings. While the building walls are set back more than 20 feet on both frontages, the proposed encroachment is limited to stoops, patios, and landscape improvements.

E. Approvals Contemplated

As indicated above, refinements to the plan have been made since the Program EIR was certified in 2006. Those refinements include:

- Reduction in maximum building height from 306 feet (2006 EIR) and 272 feet AGL (2007 Master Plan) to 66 feet AGL (with a roof segment that extends 74'10" over the lobby, the elevator, and stairway areas in Building A and Building B)
- Change from two high-rise towers and mid-rise structures to two 6-story structures
- Reduction in unit count from 484 to 393
- Reduction in retail from 6,000 square feet to 4,104 square feet
- Reduction in on-site parking to 731 spaces, resulting from unit count reduction
- Relocation, revision, dedication, and abandonment of various easements

The revised 2007 Final Master Plan and Addendum will require approval by the City of Costa Mesa Planning Commission. In taking action on the Addendum the City, as Lead Agency, must consider the whole of the data presented in the North Costa Mesa High-Rise Projects Final Program EIR and this Addendum to the Program EIR. The North Costa Mesa High-Rise Projects Program EIR and this Addendum provide project specific environmental analysis for Site 4 –Symphony Towers.

Environmental Analysis

For Projects with Previously Certified/Approved Environmental Documents
Final Environmental Impact Report
North Costa Mesa High-Rise Projects
SCN 2006011077

The following analysis takes into consideration the preparation of an environmental document prepared at an earlier stage of the project and describes the modifications to the proposed project from what was analyzed in the Program EIR. This analysis evaluates the adequacy of the earlier document pursuant to §15162 of the California Environmental Quality Act (CEQA) Guidelines. The Environmental Checklist is included following this analysis.

Analysis of the facts related to the project will form the basis for the City of Costa Mesa to determine whether any changes in the project, any changes in circumstances, or any new information since the North Costa Mesa High-Rise Projects Program EIR was certified require additional environmental review or preparation of a subsequent or supplemental EIR.

A. Aesthetics

The update to Site 4 will result in a change to the building height and massing along Anton Boulevard and Avenue of the Arts. The project for Site 4 as analyzed in the Program EIR consisted of two contemporary style high-rise residential towers with a maximum height of 272 feet above ground level (AGL). The building materials were of a pre-cast concrete panel system, etched glass, and variable stone surfaces, including painted aluminum frame windows, a stainless steel storefront, and metal guard rails along the balconies, metal/glass canopies, and veneer-clad columns.

The proposed update to Site 4 eliminates the two high-rise towers, replaced by two 6-story buildings that will form the building mass along Anton Boulevard at Avenue of the Arts. As shown on the Architectural Plan (Exhibit 4 – 2006 Site Plan, page 9), the proposed project has incorporated design elements with architectural depth and contrast, including two vertical elements that match the Plaza Tower building, located at 3301 Avenue of the Arts located on the southeast corner of Anton Boulevard and Avenue of the Arts, adjacent to the proposed project, as shown on the project perspectives illustrated in Exhibit 16, Exhibit 17, Exhibit 18, and Exhibit 19, the perspective designs of the proposed project.

Would the project:

a) *Have a substantial adverse effect on a scenic vista?* ***(No Substantial Change from Previous Analysis)***

The existing views from the proposed project include surrounding urban uses, such as shopping centers, restaurants, low-rise to mid-rise office and residential buildings, and the Performing Arts Center complex. The Program EIR concluded that no scenic vistas will be affected by the proposed project, that no impacts are anticipated, and that no mitigation measures are required. No new impacts are associated with the update to Site 4, as it will have a reduced height from 306 feet AGL to 66 feet AGL with a roof segment that extends 74'10" over the lobby, the elevator, and stairway areas in Building A and Building B, as shown on the project elevations illustrated in Exhibit 20, Exhibit 21, and Exhibit 22. The roof projections provide articulation and break up the roof line, providing additional architectural definition. Therefore, the Program EIR remains adequate and complete with respect to this topic.

Exhibit 16 – View of The Plaza Tower

Exhibit 17 – Project Perspective – Conceptual Perspective from Anton Boulevard

Exhibit 18 – Project Perspective – Conceptual Perspective from Corner of Anton Boulevard and Avenue of the Arts

Exhibit 19 – Project Perspective – Conceptual Perspective View of Avenue of the Arts

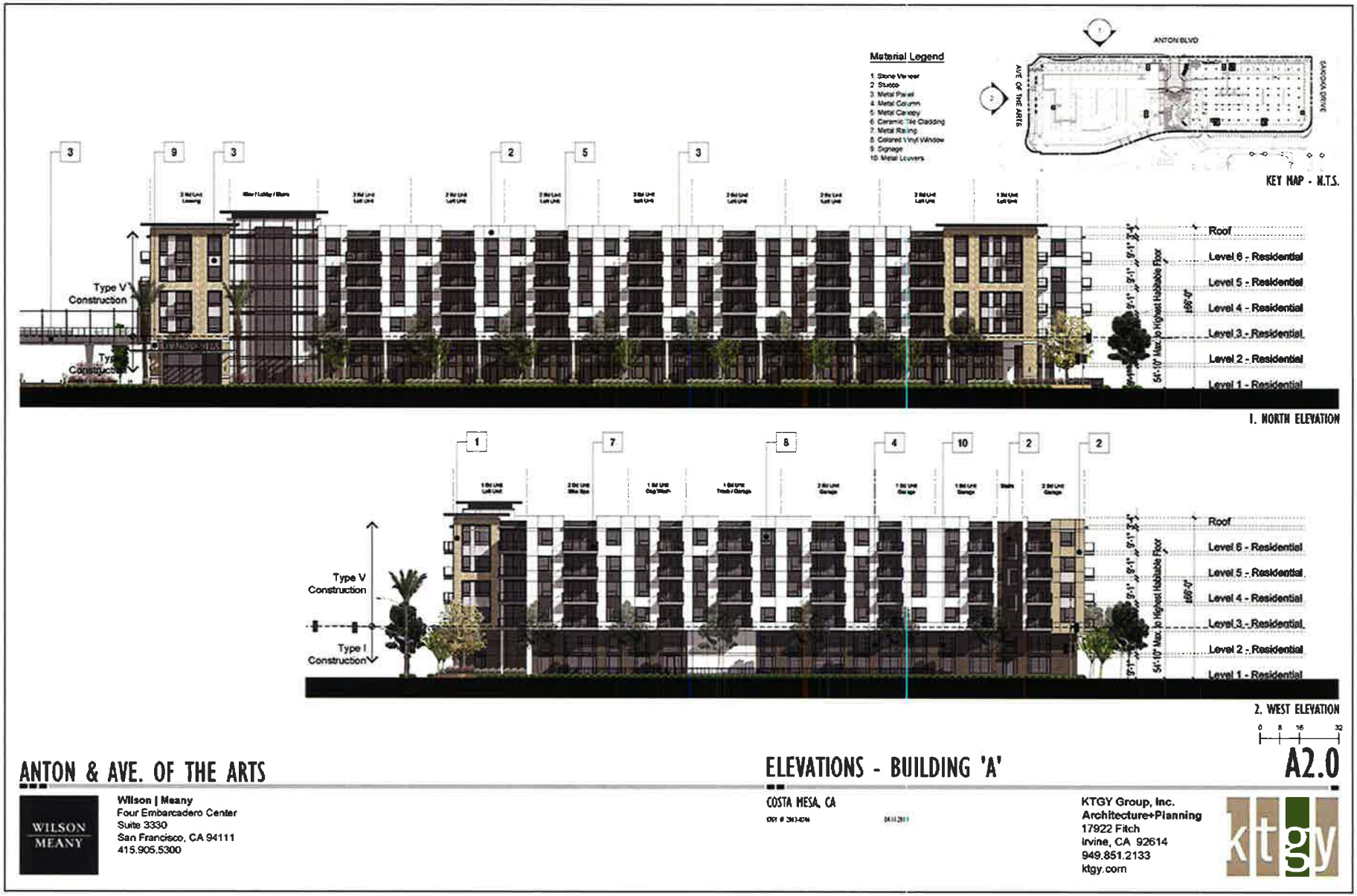


Exhibit 20 – Project Elevations – Building A, West Elevation

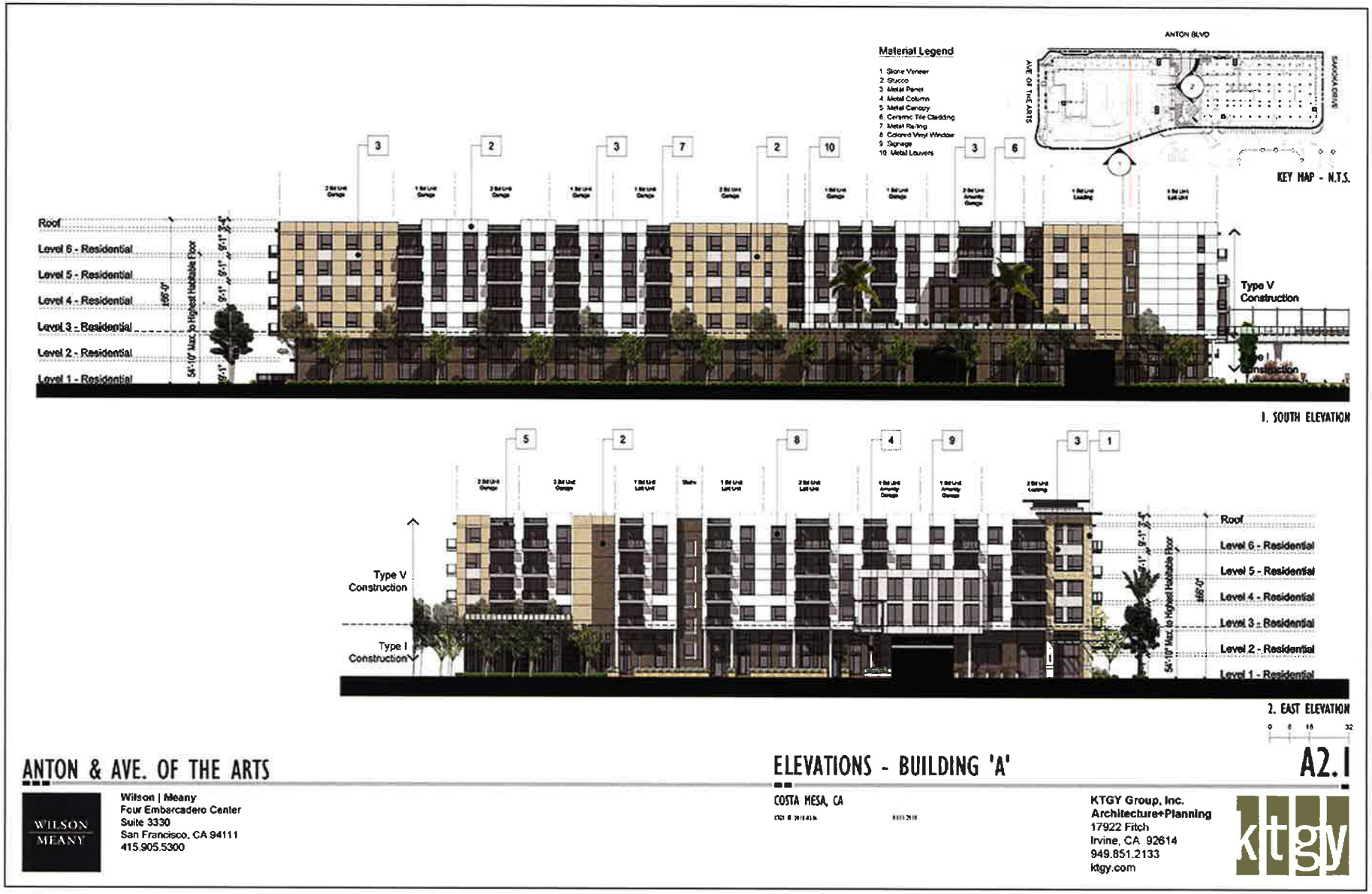


Exhibit 21 – Project Elevations – Building A, East Elevation

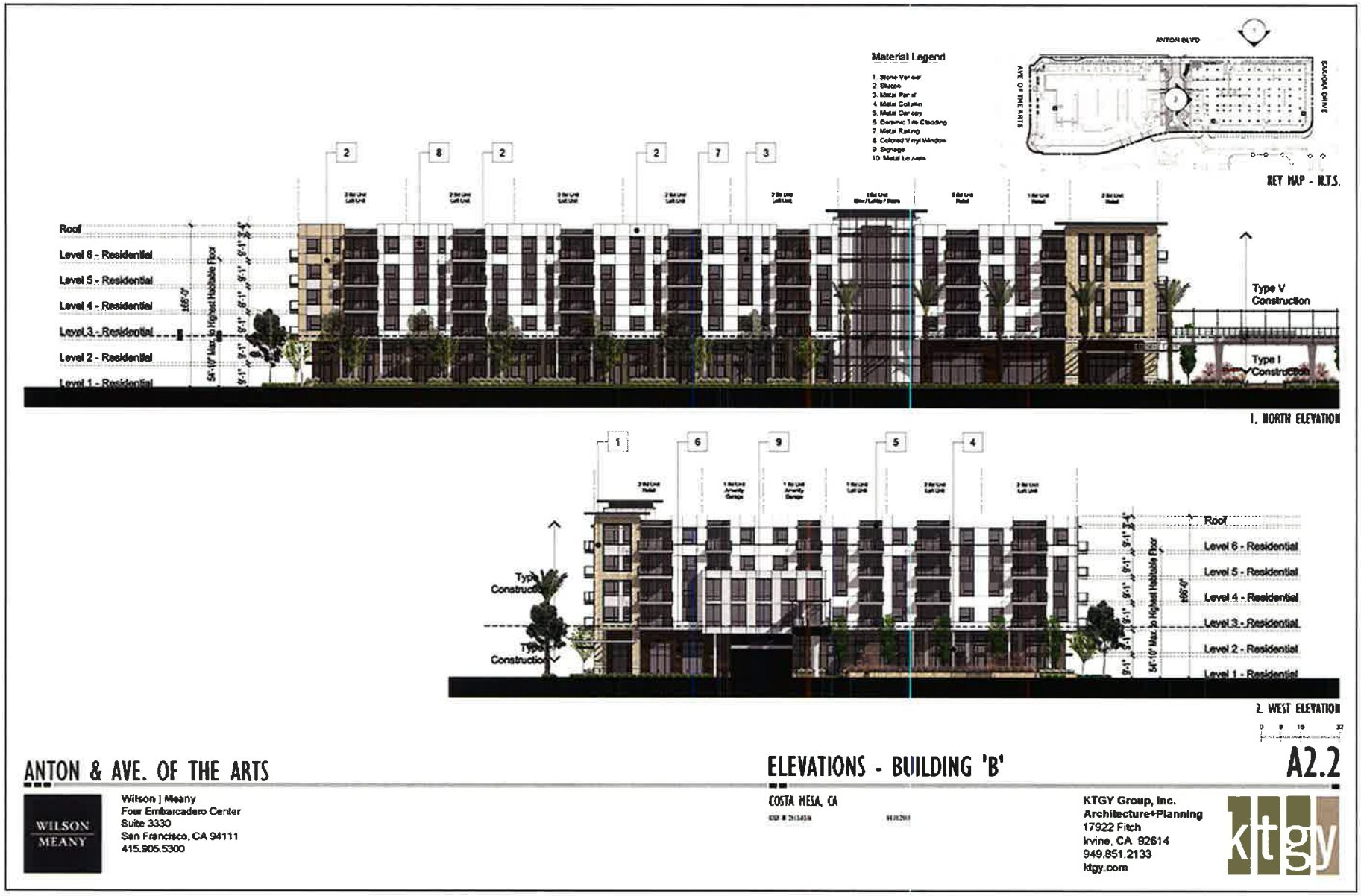


Exhibit 22 – Project Elevations – Building B, West Elevation

b) *Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?* ***(No Substantial Change from Previous Analysis)***

The Program EIR concluded that no scenic resources, trees, rock outcroppings, or historic buildings will be affected by the proposed project, no impacts are anticipated, and no mitigation measures are required. No new impacts are associated with the update to Site 4. Therefore, the Program EIR remains adequate and complete with respect to this topic.

c) *Substantially degrade the existing visual character or quality of the site and its surroundings?* ***(No Substantial Change from Previous Analysis)***

The Program EIR analyzed the visual character impact of the projects in the general vicinity and determined that the proposed projects were consistent with the high-rise, mid-rise, and low-rise buildings. The Program EIR concluded that the impacts due to blockage of aesthetics resources views would not be significant because, like most metropolitan centers, high-rise development tends to cluster and create a new viewscape.

The update to Site 4 will result in the reduction of the building height from a maximum of 306 feet above ground level (AGL) to 66 feet AGL with a roof segment that extends 74'10" over the lobby, the elevator, and stairway areas in Building A and Building B. The reduced height of the residential building will continue to be consistent with the existing visual character and quality of the site and the surrounding area, as shown on Exhibit 23 – Artist Rendering. The update to Site 4 will not result in new or more severe impacts than were analyzed in the Program EIR for building massing, as the proposed building height is far less than originally contemplated. Therefore, the Program EIR remains adequate and complete.

d) *Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?* ***(No Substantial Change from Previous Analysis)***

The Program EIR analyzed the proposed impact of the projects concerning light and glare on daytime or nighttime views in the area. The Program EIR determined that the five sites currently contain and are surrounded by several mixed uses that generate glare from reflective surfaces and nighttime lighting. Night lighting occurs for all uses in the form of interior lighting, parking lot lighting, and security lighting. The City imposes standard conditions for all development projects that will lessen project impacts on light and glare. The update to Site 4 will not result in new or more severe impacts than what is analyzed in the Program EIR. Therefore, the Program EIR remains adequate and complete.

Exhibit 23 – Artist Rendering

e) *In addition the City of Costa Mesa specifies an additional significance threshold related to shade/shadow effect of the proposed residential high-rise building on sensitive uses.* ***(No Substantial Change from Previous Analysis)***

The Program EIR concluded that the proposed high-rise residential units are not sensitive uses with the same expectations of shade/shadow limits as traditional multi-family residential uses. The City considers the project area as an urban environment with intensely developed commercial, residential, and cultural uses in a limited geographic area. Existing high-rise structures include Plaza Tower, Center Tower, Pacific Arts Plaza buildings, and hotel buildings. The Program EIR included a Shade and Shadow Analysis prepared by Focus 360 to analyze the impacts of the additional height and bulk of the proposed high-rise buildings. Given the urban context of the project area, the surrounding land uses, including the existing commercial and retail uses located on the southwest corner of Anton Boulevard and Avenue of the Arts were not considered sensitive uses; therefore, the Program EIR concluded that no impact would occur.

The proposed project includes a building height reduction from 306 to 66 feet with a roof segment that extends 74'10" over the lobby, the elevator, and stairway areas in Building A and Building B and, therefore, will produce a significantly reduced or more shallow shadow than the originally proposed project. As shown on Exhibit 24 – Solar Study, shadows from the proposed project will not reach the surrounding building. Therefore, the Program EIR remains adequate and complete for this topic.

B. Air Quality

The Air Quality Analysis in the Program EIR was based on CEQA Guidelines thresholds. Short-term construction activity impacts exceeded South Coast Air Quality Management District (SCAQMD) significance thresholds for reactive organic gases (ROG) due to the application of architectural coatings and NO_X due to heavy equipment/vehicle emissions used during construction. Mitigation measures AQ-1, AQ-2, and AQ-3 were included to minimize these unavoidable adverse impacts.

Mitigation Measure AQ-1 requires a community liaison during grading and paving activities to resolve issues concerning dust generation. The Program EIR analysis determined that project-related operational emissions will exceed the SCAQMD significance threshold for ROG primarily due to consumer product emissions. Mitigation Measure AQ-2 requires developer to ensure plans minimize ROG emissions, and is included to minimize the long-term unavoidable adverse impacts. Mitigation Measure AQ-3 requires compliance with the Storm Water Pollution Prevention Plan to ensure that airborne dust emission is minimized.

Cumulative air quality impacts from the five project sites were analyzed in the Program EIR, and short-term construction-related emissions of ROG and NO_X were determined to be significant and adverse when added to the existing non-attainment levels of the South Coast Air Basin. A statement of overriding considerations was adopted.

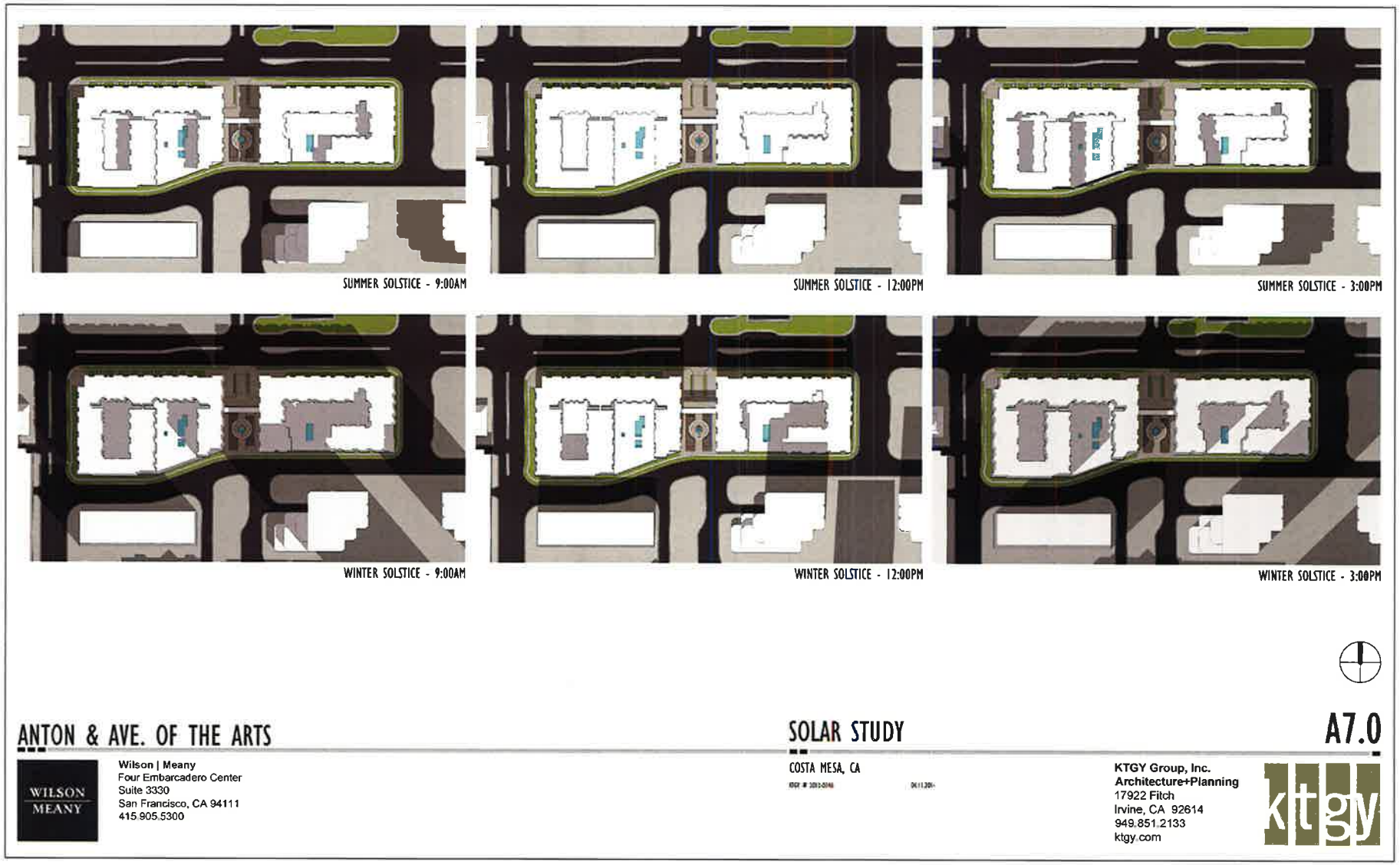


Exhibit 24 – Solar Study

a) *Would the project conflict with or obstruct implementation of the applicable air quality plan?* ***(No Substantial Change from Previous Analysis)***

The Program EIR identified air quality impacts that would result from project implementation, both short-term construction and long-term operational. As detailed in the Program EIR, project-related operational emissions will exceed the SCAQMD significance thresholds for ROG primarily due to consumer product emissions. This is considered an unavoidable adverse impact. Additionally, construction activity impacts will exceed significance thresholds for ROG due to application of architectural coatings and NO_X due to heavy equipment/vehicle emissions.

The update to Site 4 will not result in new or more severe impacts beyond those addressed and mitigated in the Program EIR, because the number of residential units and the number of average daily traffic (ADT) are fewer due to the reduction in the number of residential units and resident-serving retail square footage from Site 4. Thus, while the project's impacts on air quality are anticipated to be less than the original project's impacts, on a cumulative basis impacts will remain significant and adverse. No other changes or increases have occurred in this area from the analysis provided in the Program EIR. Therefore, the Program EIR remains adequate and complete for this topic.

b) *Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?* ***(No Substantial Change from Previous Analysis)***

The Air Quality Analysis for the Program EIR concluded that ROG and NO_X SCAQMD thresholds would be exceeded during construction. The Program EIR included Mitigation Measures AQ-1 and AQ-2 designed to minimize impacts due to the application of architectural coatings and heavy equipment/vehicle emissions used during construction.

The Air Quality Analysis for the Program EIR concluded that project-related operational emissions will exceed the SCAQMD significance threshold for ROG primarily due to consumer product emissions. Mitigation Measure AQ-2 is proposed to minimize the long-term unavoidable adverse impacts.

The Air Quality Analysis for the Program EIR concluded that cumulative air quality impacts from the five project sites were analyzed in the Program EIR, and short-term construction-related emissions of ROG and NO_X were determined to be significant and adverse when added to the existing non-attainment levels of the South Coast Air Basin. A statement of overriding considerations was adopted.

No changes have occurred in this area from the analysis provided in the Program EIR. The update to Site 4 will not result in new or more severe impacts beyond those addressed and mitigated in the Program EIR. Therefore, the Program EIR remains adequate and complete with respect to this topic.

c) *Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard including releasing emissions which exceed quantitative thresholds for ozone precursors?* ***(No Substantial Change from Previous Analysis)***

The Program EIR identified cumulatively significant air quality impacts for ROG and NO_X during construction and ROG associated with operations-related emissions that would result from project implementation. The air quality impacts from these criteria pollutants in conjunction with anticipated growth in the area would further hinder the South Coast Air Basin's ability to comply with the regional Air Quality Management Plan. Although the

impacts contributed by the five projects would be regionally minor, any incremental adverse air quality impact must be considered cumulatively significant. The update to Site 4 will result in a reduction in the number of residential units from 484 to 393, and the total average daily traffic estimates will result in 310 fewer daily trips than originally analyzed for the project, thereby reducing air quality impacts due to traffic. Although modifications to the project are proposed, no new or significant impacts will occur. Therefore, the Program EIR remains adequate and complete for this topic.

d) *Would the project expose sensitive receptors to substantial pollutant concentrations?* ***(No Substantial Change from Previous Analysis)***

The Program EIR identified air quality impacts related to sensitive receptors with project implementation. The update to Site 4 does not result in new or more severe impacts beyond those addressed in the Program EIR. Therefore, the Program EIR remains adequate and complete with respect to this topic.

e) *Would the project create objectionable odors affecting a substantial number of people?* ***(No Substantial Change from Previous Analysis)***

The Program EIR identified air quality impacts that would result from project implementation. The update to Site 4 does not result in new or more severe impacts beyond those addressed in the Program EIR. Therefore, the Program EIR remains adequate and complete with respect to this topic.

C. Geology and Soils

The Program EIR noted that the proposed project could be subject to potentially significant adverse geologic impacts. Mitigation Measure G-1 requires a site specific final geotechnical report to implement the NMG Geotechnical Investigation Report. Mitigation Measure G-2 requires the City of Costa Mesa to monitor grading due to high moisture content of soils to ensure stabilization of soils. Mitigation Measure G-3 requires that the appropriate pile-driving or other appropriate design (e.g., mat slab) is incorporated into the projects due to unstable soils. Mitigation Measure G-4 requires project design to include appropriate waterproofing of subterranean structures. Mitigation Measure G-5 requires coordination with utilities companies prior to initiation of grading activities to ensure protection of existing utilities. Mitigation Measure G-6 requires that provisions in the Final Geotechnical Investigation Report regarding dust control are incorporated into the final construction specifications for the projects. Mitigation measures from the Program EIR are incorporated herein by reference and include G-1 thru G-6, which, per the Program EIR, reduced project impacts to a less than significant level.

Would the project:

a) *Expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving:*

i) *Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of known fault? Refer to Division of Mines and Geology Special Publication 42* ***(No Substantial Change from Previous Analysis)***

The Program EIR concluded that the project sites are not located within an Alquist-Priolo fault zone, as identified in the California Geologic Survey Special Report 42, Fault and Rupture Zones in California, Hart 2003. The proposed update to Site 4 does

not result in new or more severe impacts beyond those addressed in the Program EIR. Therefore, the Program EIR remains adequate and complete with respect to this topic.

ii) Strong seismic ground shaking? (No Substantial Change from Previous Analysis)

The Program EIR included mitigation measures as described above designed to minimize impacts due to strong seismic ground shaking. No changes have occurred in this area from the analysis provided in the Program EIR. The update to Site 4 will not result in new or more severe impacts beyond those addressed and mitigated in the Program EIR. Therefore, the Program EIR remains adequate and complete with respect to this topic.

iii) Seismic-related ground failure, including liquefaction? ***(No Substantial Change from Previous Analysis)***

The Program EIR included mitigation measures, as described above, designed to minimize impacts due to seismic-related ground failure, including liquefaction. No changes have occurred in this area from the analysis provided in the Program EIR. The update to Site 4 will not result in new or more severe impacts beyond those addressed and mitigated in the EIR. Therefore, the Program EIR remains adequate and complete with respect to this topic.

iv) Landslides? (No Substantial Change from Previous Analysis)

The Program EIR concluded that the potential for landslides is remote given the project sites' flat to gently sloping terrain of generally less than one percent incline. No changes have occurred in this area from the analysis provided in the Program EIR. The development of the update to Site 4 will result in no new or more severe impacts beyond those addressed and mitigated in the Program EIR. Therefore, the Program EIR remains adequate and complete with respect to this topic.

b) Result in substantial soil erosion or the loss of topsoil? ***(No Substantial Change from Previous Analysis)***

The Program EIR included mitigation measures, as described above, designed to minimize impacts due to soil erosion. No changes have occurred in this area from the analysis provided in the Program EIR. The update to Site 4 will not result in new or more severe impacts beyond those addressed and mitigated in the Program EIR. Therefore, the Program EIR remains adequate and complete with respect to this topic.

c) Be located on geologic unit or soil that is unstable or that would become unstable as a result of the project and potentially result in onsite or offsite landslide, lateral spreading, subsidence, liquefaction or collapse? ***(No Substantial Change from Previous Analysis)***

The Program EIR included mitigation measures as described above, designed to minimize impacts due to settlement from unstable soils. No changes have occurred in this area from the analysis provided in the Program EIR. The update to Site 4 will not result in new or more severe impacts beyond those addressed and mitigated in the Program EIR. Therefore, the Program EIR remains adequate and complete with respect to this topic.

d) *Be located on expansive soil as defined in Table 18-1-B of the Uniform Building Code (1994) creating substantial risks to life or property?* ***(No Substantial Change from Previous Analysis)***

The Program EIR included mitigation measures designed, as described above, to minimize impacts due to expansive soils. No changes have occurred in this area from the analysis provided in the Program EIR. The update to Site 4 will not result in new or more severe impacts beyond those addressed and mitigated in the Program EIR. Therefore, the Program EIR remains adequate and complete with respect to this topic.

e) *Have soils incapable of adequately supporting the use of septic tanks or alternative water disposal systems where sewers are not available for the disposal of water?* ***(No Substantial Change from Previous Analysis)***

The Program EIR included mitigation measures as described above designed to minimize impacts relating to geology and soils. The projects will not include the use of septic systems or alternative water disposal systems. No changes have occurred in this area from the analysis provided in the Program EIR. The development update to Site 4 will result in no new or more severe impacts beyond those addressed and mitigated in the Program EIR. Therefore, the Program EIR remains adequate and complete with respect to this topic.

D. Greenhouse Gas Emissions

A Greenhouse Gas Emissions Analysis (GHG Analysis) was prepared by KPC-EHS Consultants dated July 25, 2014. The GHG Emissions Impact Analysis is included herein as Appendix A. The following information is based on the information presented in the GHG Impact Analysis.

Since the certification of the 2006 Program EIR, the state legislature passed AB 32 known as the Global Warming Solutions Act, which requires the analysis of potential greenhouse gas (GHG) impacts due to development. The Global Warming Solutions Act was passed in August 2006. AB 32 requires that levels of GHG be reduced to1990 levels by the year 2020. There are currently no federal regulations on the reduction of GHG to reduce their effects on global climate changes. Senate Bill 97 (SB 97) requires that the Governor's Office of Planning and Research develop guidelines for CEQA compliance related to GHG emissions, including mitigation measures for the reduction of GHG.

The Air Resources Board approved a Climate Change Scoping Plan in December 2008 (Scoping Plan). The Scoping Plan outlines the state's strategy to achieve the 2020 greenhouse gas emissions limit. The Scoping Plan "proposes a comprehensive set of actions designed to reduce overall greenhouse gas emissions in California, improve our environment, reduce our dependence on oil, diversify our energy sources, save energy, create new jobs, and enhance public health." The Scoping Plan calls for an "ambitious but achievable" reduction in California's greenhouse gas emissions, cutting approximately 30 percent from business-as-usual emissions levels projected for 2020, or about 10 percent from today's levels.

Traffic data for the project was taken from the updated Traffic Impact Analysis dated July 24, 2014 by Linscott, Law, & Greenspan. Estimated project GHG emissions include 30-year amortized emissions for construction, mobile sources (per the project-specific TIA), area sources, energy, solid waste, and water/wastewater sources. GHG emissions for Site 4 were modeled using the SCAQMD's CalEEMod computer air emissions modeling program to estimate emissions generated during construction and operation. Default values were used in CalEEMod when specific project information was not available. No mitigation measures were assumed and as such the emissions estimates represent a worst-case

scenario. The emissions for the 2006 Program EIR-Site 4 and the updated project are shown below in the Table 2 and Table 1, respectively.

Table 1 – Project Greenhouse Gas Emissions (Unmitigated) – Entitled Project - 2006 Program EIR Site 4

	GHG Emissions MT/year			
Source	**N_2O**	**Total CO_2**	**CH_4**	**CO_2e**
Mobile sources	0.000	5,591.23	0.2311	5,596.08
Area	0.003	158.37	0.1617	162.85
Energy	0.017	1,511.96	0.0613	1,518.55
Solid waste	0.000	59.22	3.500	132.72
Water/wastewater	0.027	198.45	1.0955	229.96
30-year amortized construction GHG				37.78
			Total	7,677.92
			SCAQMD threshold	3,000
			Exceed threshold?	yes

Table 2 – Project Greenhouse Gas Emissions (Unmitigated) – Updated Site 4 Proposed Project

	GHG Emissions MT/year			
Source	**N_2O**	**Total CO_2**	**CH_4**	**CO_2e**
Mobile sources	0.000	3,167.50	0.1323	3,170.28
Area	0.0028	128.60	0.1313	132.23
Energy	0.0139	1,237.12	0.0505	1,242.46
Solid waste	0.000	46.05	2.7215	103.20
Water/wastewater	0.0221	160.01	0.8809	185.35
30-year amortized construction GHG				34.73
			Total	4,868.27
			SCAQMD threshold	3,000
			Exceed threshold?	yes

The projected total GHG emissions from the proposed project is approximately 4,868.27 CO_2e MT/year, as shown on Table 1, while the 2006 Program EIR had an estimated GHG emissions of approximately 7,677.92 CO_2e MT/year. Although the updated project would result in GHG emissions in excess of the interim SCAQMD threshold, the proposed project would reduce GHG emissions by approximately 2,809.65 CO_2e MT/year., which reduces the estimated GHG emissions between the 2006 approved project analyzed in the Program EIR and the updated project by 36.59 percent.

Would the project:

a) *Generate greenhouse gas emissions, either directly or indirectly that may have a significant impact on the environment?*

Although the 2006 Program EIR was not required to analyze climate change impacts due to greenhouse gas emissions (GHG), it quantified air quality impacts, including carbon dioxide (CO_2) and other greenhouse gases associated with the project. The Program EIR also addressed vehicle emissions (construction related and operational) and operational emissions from energy consumption, which are the most common sources of greenhouse gas. As such, GHG emissions and the issue of global climate change (GCC) do not represent new information of substantial importance that was not known and could not have been known at the time the Program EIR was certified.

The effects of GHG emissions on climate were known long before the City certified the 2006 Program EIR. GCC and GHG emissions were identified as environmental issues since as early as 1978 when the United States Congress enacted the National Climate Program. In

1979, the National Research Council published "Carbon Dioxide and Climate: A Scientific Assessment," which concluded that climate change was an accelerating phenomenon partly due to human activity. Numerous studies conducted before and after the National Resource Council report reached similar conclusions.

Information on GCC was also widely published in a series of reports by the Intergovernmental Panel on Climate Change (IPCC) in the 1990s, and the State of California adopted legislation in 2002 requiring the California Air Resources Board (CARB) to develop regulations limiting GHG emissions from automobiles. Information about GCC and GHG emissions was available with the exercise of reasonable diligence at the time the Program EIR was certified in 2006. During the public review and hearing process on the project, no objections or concerns were raised regarding the EIR's analysis of GHG emissions, and no legal challenge was filed within the statute of limitations period established by the *Public Resources Code* §21167(c). In addition, no objections were raised on the topic of GHG emissions and GCC as part of the 2013 Addendum to the North Costa Mesa High-Rise Residential Projects Program EIR for 580 Anton. Pursuant to CEQA Guidelines §15162(a)(3), the issue of project-related GHG emissions does not provide new information of substantial importance or substantial evidence of a new impact to the environment that was not, or could not have been known at the time the Program EIR was certified.

A Statement of Overriding Consideration was adopted for the Program EIR for the purposes of impacts related to air quality, such as CO_2 and other greenhouse gases. However, the updated project proposes to reduce the number of on-site residential units and retail square footage, which will have an attendant reduction in construction-related and operational GHG emissions. The proposed project would exceed the SCAQMD GHG threshold of 3,000 CO_2e MT/year, but would result in the reduction of GHG by 2,809.25 CO_2e MT/year, as compared to the approved project, as analyzed in the 2006 Program EIR. The proposed project is not expected to result in any climate change impacts due to greenhouse gas emissions beyond the impacts of development set forth in the 2006 Program EIR and would actually result in a reduction in GHG emissions as compared to the previously approved project; therefore, the Program EIR remains adequate and complete with respect to this topic.

b) *Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?*

The project would be required to comply with all applicable regulations, such as Title 24 and CalGreen, which would result in lower GHG emissions than those modeled. The modeling for GHG emissions estimates did not include any mitigation measure and, therefore, the GHG impact can be reduced from the current estimates by incorporating mitigation as outlined in the California Air Pollution Control Officers Association (CAPCOA) Quantifying Greenhouse Gas Mitigation Measures, dated August 2010.

To address GHG emission and comply with AB32 in General Plans and CEQA documents, Senate Bill 97 (SB97) required the Governor's Office of Planning and Research (OPR) to develop guidelines for CEQA compliance on how to address GHG emissions along with measures to reduce project GHG emissions. Regulations that have been adopted by California to address GHG emissions include the following:

- Global Warming Solutions Action of 2006 (AB32)
- Regional GHG Emissions Reduction Targets/Sustainable Communities Strategies (SB375)

- Pavely Fuel Efficiency Standards (AB1493) establishes fuel efficiency ratings for new vehicles
- Title 24 *California Code of Regulations* (California Building Code) establishes energy efficiency requirements for new construction
- Title 20 *California Code of Regulations* (Appliance Energy Efficiency Standards) establishes energy efficiency requirements for appliances
- Title 17 *California Code of Regulations* (Low Carbon Fuel Standards) requires carbon content of fuel sold in California to be 10 percent less by year 2020
- California Water Conservation in Landscaping Act of 2006 (AB1881) requires local agencies to adopt the Department of Water Resources updated Water Efficient Landscape Ordinance or equivalent to ensure efficient landscapes
- Statewide Retail Provider Emissions Performance Standards (SB 1368) requires energy generators to achieve performance standards for GHG emissions
- Renewable Portfolio Standards (SB1078) requires electric corporations to increase the amount of energy obtained from eligible renewable energy resources to 20 percent by 2010 and 33 percent by 2020

The above measures were not in place when the 2006 Program EIR was certified, and it is anticipated that such measures would lead to lesser GHG emissions than what was previously analyzed. As noted above, the updated project will reduce greenhouse gas emissions by 36.59 percent, as compared with the 2006 Program EIR. The proposed uses are in conformance with the assumptions that were analyzed in the 2006 Program EIR. The updated project will not conflict with any policy, plan, or regulation adopted for the purpose of reducing GHG emissions, as the updated project itself serves to reduce GHG emissions compared to the approved project; therefore, the Program EIR remains adequate and complete with respect to this topic.

E. Hazards and Hazardous Materials

The 2006 Program EIR noted that the proposed project would not involve the use of any hazardous materials in its day-to-day operations, but the proposed project could be subject to potentially significant adverse hazards and hazardous materials impacts during demolition of the existing structures on Sites 1, 3, 4 and 5 (Site 2 is vacant). With compliance with federal, state, and local regulations regarding the handling and disposal of hazardous materials, all project impacts due to hazards and hazardous materials will be less than significant. Mitigation measures were included to reduce potential impacts to less than significant. Mitigation measures from the Program EIR are incorporated herein by reference and include HH-1 thru HH-5, which, per the Program EIR, reduced project impacts to a less than significant level.

Would the project:

a) *Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?* ***(No Substantial Change from Previous Analysis)***

Site 4 is required to submit a Phase I ESA per Mitigation Measure HH-1 incorporated into the Program EIR. All project sites are required by Mitigation Measure HH-2 to fully comply with recommendations of the project's Phase 1 ESA. Mitigation Measure HH-3 requires the developer to submit a letter of case closure to the Orange County Health Care Agency if contaminated soils requiring remediation are encountered. Mitigation Measure HH-4 does

not pertain to Site 4, but requires during demolition compliance with National Emissions Standards for Hazardous Air Pollution for the sampling for asbestos. Mitigation Measure HH-5 requires the project developer to prepare a demolition plan to separate paint waste for evaluation by a qualified hazardous material inspector. The Program EIR includes these mitigation measures designed to minimize impacts to the public or the environment through the routine transport, use, or disposal of hazardous materials. No changes have occurred in this area from the analysis provided in the Program EIR. The update to Site 4 will not result in new or more severe impacts beyond those addressed and mitigated in the Program EIR. Therefore, the Program EIR remains adequate and complete with respect to this topic.

b) *Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?* ***(No Substantial Change from Previous Analysis)***

Neither the construction nor the operation of the proposed project with the update to Site 4 will involve hazardous materials that might unwittingly be released into the environment. Therefore, there will be no impact due to the accidental release of such materials. The Program EIR as certified will remain adequate and complete for this topic.

c) *Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?* ***(No Substantial Change from Previous Analysis)***

The project analyzed in the 2006 Program EIR involves the construction of residential, commercial, hotel, and museum uses, and no hazardous or acutely hazardous materials, substances, or waste will be emitted by the normal operation of the projects. No changes have occurred in this area from the analysis provided in the Program EIR. The development of the projects along with the update to Site 4 will result in no new or more severe impacts beyond those addressed and mitigated in the Program EIR. Therefore, the Program EIR remains adequate and complete with respect to this topic.

d) *Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?* ***(No Substantial Change from Previous Analysis)***

The proposed sites along with the update to Site 4 are not included on a list of hazardous materials sites and would not create a significant hazard to the public or the environment. Therefore, the Program EIR remains adequate and complete with respect to this topic.

e) *Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?* ***(No Substantial Change from Previous Analysis)***

The construction of the proposed projects along with the update to Site 4 will not produce any physical constraints or impair an adopted emergency response plan or an emergency evacuation plan. Standard conditions have been imposed regarding provision of fire access roads and fire lane markings as well as project review by the Orange County Fire Authority. As analyzed in the Program EIR, there will be no impact related to impairment of emergency response plans or emergency evacuation plans. Therefore, the Program EIR remains adequate and complete with respect to this topic.

f) *Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?* ***(No Substantial Change from Previous Analysis)***

The proposed projects together with the update to Site 4 are not located in a designated urban-wildlands interface area, and there is no significant risk from wildland fires. Therefore, the Program EIR remains adequate and complete with respect to this topic.

F. Hydrology and Water Quality

Hydrology and water quality impacts due to short-term construction activities and long-term operation were identified in the Program EIR. Mitigation measures were included to reduce potential impacts to less than significant. Mitigation measures from the Program EIR are incorporated herein by reference and include WQ-1 through WQ-5, which, per the Program EIR, reduced project impacts to a less than significant level. These mitigation measures will be implemented as part of the proposed project and will reduce short-term construction and long-term operational impacts to a less than significant level. The update to Site 4 will result in no new or more severe impacts beyond those addressed and mitigated in the Program EIR. Therefore, the Program EIR remains adequate and complete with respect to this hydrology and water quality impacts.

a) *Would the project violate any water quality standards or waste discharge requirements?* ***(No Substantial Change from Previous Analysis)***

A Preliminary Hydrology Analysis, dated May 22, 2006 and a Water Quality Management Plan, dated March 31, 2006 were prepared for the Program EIR analysis. The Program EIR identified impacts to hydrology and water quality that would result from project implementation. Recommendations from the technical studies for hydrology and water quality will continue to be observed. No changes will occur in this area from the analysis provided in the Program EIR with implementation of the update to Site 4. Therefore, the Program EIR remains adequate and complete for this topic.

b) *Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g. the production rate of a pre-existing nearly wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?* ***(No Substantial Change from Previous Analysis)***

The Program EIR concluded that there is no significant impact to groundwater supplies and the project will not interfere substantially with groundwater recharge. No changes have occurred in this area from the analysis provided in the Program EIR. The update to Site 4 does not add new or more severe impacts than the analysis provided in the Program EIR. Therefore, the Program EIR remains adequate and complete for this topic.

c) *Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on or off site?* ***(No Substantial Change from Previous Analysis)***

The Program EIR concluded that there is no significant impact from runoff tributary to the existing drainage system (reinforced concrete pipe (RCP), as the runoff rate will not change because the surface coverage will remain largely the same as the existing condition. No changes will occur in this area from the analysis provided in the Program EIR due to the update to Site 4. Therefore, the Program EIR remains adequate and complete for this topic.

d) *Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?* ***(No Substantial Change from Previous Analysis)***

The Program EIR concluded that there is no impact to existing drainage patterns because the proposed land use coverage is similar to the existing land use, and the 25- and 10-year runoff values are similar to the existing condition flow rates for all five sites. No changes have occurred in this area from the analysis provided in the Program EIR for the update to Site 4. The amount of impervious surfaces remains the same for the modified Site 4 site plan. Therefore, the Program EIR remains adequate and complete for this topic.

e) *Would the project create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?* ***(No Substantial Change from Previous Analysis)***

The Program EIR concluded that the existing area storm drain system had adequate capacity for the five project sites. No changes have occurred in this area from the analysis provided in the Program EIR. The update to Site 4 will not result in new or more severe impacts beyond those addressed and mitigated in the Program EIR. Therefore, the EIR remains adequate and complete for this topic.

f) *Would the project otherwise substantially degrade water quality?* ***(No Substantial Change from Previous Analysis)***

The Program EIR addressed potential impacts to water quality and included mitigation measures WQ-1 through WQ-5 to reduce impacts. Mitigation Measure WQ-1 requires developers to file a notice of intent and prepare and implement a Storm Water Pollution Prevention Plan. Mitigation Measure WQ-2 requires each project site to prepare a Water Quality Management Plan. Mitigation Measure WQ-3 requires each project site to provide proof that a National Pollutant Discharge Elimination System (NPDES) permit has been obtained from the Regional Water Quality Control Board and compliance with City of Costa Mesa's NPDES CAG998002 for dewatering activities. Mitigation Measure WQ-4 requires incorporation of permanent structural Best Management Practices into the project design. Mitigation Measure WQ-5 requires payment of current drainage fees to the City of Costa Mesa. No changes have occurred in this area from the analysis provided in the Program EIR. The update to Site 4 will not result in new or more severe impacts beyond those addressed and mitigated in the Program EIR. Therefore, the Program EIR remains adequate and complete for this topic.

g) *Would the project place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?* ***(No Substantial Change from Previous Analysis)***

The Program EIR identified impacts to hydrology and water quality that would result from project implementation. The project is not located in a 100-year flood hazard area. No changes have occurred in this area from the analysis provided in the EIR. Therefore, the EIR remains adequate and complete for this topic.

h) *Would the project place within a 100-year flood hazard area structures that would impede or redirect flood flows?* ***(No Substantial Change from Previous Analysis)***

The Program EIR identified no impacts related to flood hazards that would result from project implementation. The project is not located in a 100-year flood hazard area due to U.S.

Army Corp of Engineers (ACOE). The ACOE completed improvements with the Santa Ana River Mainstem project that provide for 190-year storm protection throughout Orange County, including the project areas. No changes have occurred in this area from the analysis provided in the Program EIR. The update to Site 4 will not result in new or more severe impacts beyond those addressed and mitigated in the Program EIR. Therefore, the Program EIR remains adequate and complete for this topic.

i) *Would the project expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?* ***(No Substantial Change from Previous Analysis)***

The Program EIR identified no impacts related to flooding that would result from project implementation. The project is not located in the vicinity of a levee or a dam. No changes have occurred from the update to Site 4 in this area from the analysis provided in the Program EIR. Therefore, the program EIR remains adequate and complete for this topic.

j) *Inundation by seiche, tsunami or mudflow? (No Substantial Change from Previous Analysis)*

The Program EIR identified no impacts related to inundation by seiche, tsunami, or mudflow that would result from project implementation. No changes have occurred from the update to Site 4 in this area from the analysis provided in the Program EIR. Therefore, the Program EIR remains adequate and complete for this topic.

The City of Costa Mesa has determined that storm water/urban runoff/water quality considerations are generally covered in the CEQA Guidelines as listed above, but in some cases with less specificity than the questions in the Santa Ana Region Permit. The City is required by the Santa Ana Region Permit to consider the following potential impacts (k through p below) during a CEQA review:

k) *Potential impact of project construction on storm water runoff.* ***(No Substantial Change from Previous Analysis)***

The Program EIR identified impacts related to project construction on storm water runoff that would result from project implementation. Mitigation measures, as described above, have been included in the project to mitigate impacts from project construction on storm water runoff. The update to Site 4 will not have new or more severe impacts beyond those addressed and mitigated in the Program EIR. Therefore, the Program EIR remains adequate and complete for this topic.

l) *Potential impact of project's post-construction activity on storm water runoff.* ***(No Substantial Change from Previous Analysis)***

The Program EIR identified impacts related to project post-construction activity on storm water runoff that would result from project implementation. Mitigation measures, as described above, have been included in the project to mitigate impact from project post-construction activity on storm water runoff. The update to Site 4 will not result in new or more severe impacts beyond those addressed and mitigated in the Program EIR. Therefore, the Program EIR remains adequate and complete for this topic.

m) *Potential for discharge of storm water pollution from areas of material storage, vehicle or equipment fueling, vehicle or equipment maintenance (including washing), waste handling, hazardous materials handling or storage, delivery areas, loading docks, or other outdoor work areas.* ***(No Substantial Change from Previous Analysis)***

The Program EIR identified impacts related to discharge of storm water pollution from areas of material storage, vehicle or equipment maintenance (including washing), waste handling, hazardous materials handling or storage, delivery areas, loading docks that would result from project implementation. Mitigation measures, as described above, have been included in the project to mitigate impacts from these activities on storm water runoff. The update to Site 4 will not result in new or more severe impacts beyond those addressed and mitigated in the Program EIR. Therefore, the Program EIR remains adequate and complete for this topic.

n) *Potential for discharge of storm water to affect the beneficial uses of the receiving waters.* ***(No Substantial Change from Previous Analysis)***

The Program EIR identified impacts related to discharge of storm water to affect the beneficial uses of the receiving waters that would result from project implementation. Mitigation measures, as described above, have been included in the project to mitigate impacts from discharge of storm water on beneficial uses of the receiving waters. The update to Site 4 will not result in new or more severe impacts beyond those addressed and mitigated in the Program EIR. Therefore, the Program EIR remains adequate and complete for this topic.

o) *Potential for significant changes in the flow velocity or volume of storm water runoff to cause environmental harm.* ***(No Substantial Change from Previous Analysis)***

The Program EIR concluded that there are no significant changes in the flow velocity or volume of storm water runoff to cause environmental harm, as the runoff rate will not change because the surface coverage will remain substantially the same as the existing condition. No changes have occurred in this area from the analysis provided in the Program EIR due to the update to Site 4. Therefore, the Program EIR remains adequate and complete for this topic.

p) *Potential for significant increases in erosion of the project site or surrounding area.* ***(No Substantial Change from Previous Analysis)***

The Program EIR concluded that there is no significant increase in erosion on the project site or the surrounding area, as the runoff rate will not change because the surface coverage will remain substantially the same as the existing condition. Mitigation measures, as described above, have been incorporated into the project to mitigate impacts to water quality from potential erosion or siltation. No changes have occurred in this area from the analysis provided in the Program EIR due to the update to Site 4. Therefore, the Program EIR remains adequate and complete for this topic

G. Land Use and Relevant Planning

Would the project:

a) *Physically divide an established community?* ***(No Substantial Change from Previous Analysis)***

The Program EIR proposed five project sites representing a mix of residential, cultural, and commercial uses. The Program EIR concluded that the proposed project would not divide an established community; rather, the project would result in redevelopment in the highly urbanized area of North Costa Mesa. The change in Site 4 from a high-rise residential project to a mid-rise residential project will continue to integrate into the existing community. The project will not physically divide an established community. Therefore, the EIR remains adequate and complete for this topic.

b) *Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?* ***(No Substantial Change from Previous Analysis)***

The City's General Plan land use designations for the five project sites are Cultural Arts Center, Urban Center Commercial, and High-Density Residential. The adoption of the general plan amendments to the Land Use and Noise Elements contemplated and analyzed in the Program EIR allowed for residential development in North Costa Mesa that is compatible with surrounding land uses through the design of an urban core of mixed uses, creating a live/work opportunity in the nearly built-out City. The General Plan was amended to allow a density of 100 units per acre for Site 4 and the update to Site 4 is consistent with the General Plan adopted in 2007.

The North Costa Mesa Specific Plan (NCMSP) is intended to implement the policies of the General Plan and establishes eight planning areas. Site 4 is located within Area 6 of the NCMSP. The NCMSP includes area specific development standards for each area that are implemented during the preliminary and final master plan planning process. The NCMSP was updated in November 2007 with the adoption of SP-07-01 that modified Site 4 to allow a mixed-use development comprising a maximum of 484 residential units and 6,000 square feet of ancillary retail space. The update to Site 4, as proposed, will result in no new or more severe impacts beyond those addressed in the EIR. Therefore, the EIR remains adequate and complete.

c) *Conflict with any applicable habitat conservation plan or natural community conservation plan?* ***(No Substantial Change from Previous Analysis)***

No habitat conservation plan or natural community conservation plan is applicable to the proposed project. The project will result in no new or more severe impacts beyond those addressed in the Program EIR. Therefore, the Program EIR remains adequate and complete with respect to this topic.

H. Noise

As detailed in the Program EIR, construction operations would increase existing noise levels for the short term. Mitigation Measure N-1, incorporated herein, was included in the Program EIR to reduce short-term construction noise impacts to a less than significant level.

Would the project result in:

a) *Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? The impact will occur if (1) project traffic increases the Community Noise Elevation Level (CNEL) at existing properties above the City's standards; (2) the CNEL at any of the five proposed project sites exceeds the City's standards; or (3) the noise levels generated by the operation of any project site exceed the City's noise ordinance standards.* ***(No Substantial Change from Previous Analysis)***

No change in exposure of persons to or generation of noise levels will occur as a result of the proposed modifications to the Site 4 project. Therefore, the Program EIR remains complete and adequate as it relates to relates to applicable noise standards.

b) *Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?* ***(No Substantial Change from Previous Analysis)***

No change in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels will occur as a result of the proposed modifications to the Site 4 project. The Program EIR incorporates Mitigation Measure N-1 to lessen impacts from pile-driving during construction. Mitigation Measure N-1 requires the preparation of an acoustical study of potential vibration impacts due to pile-driving, if utilized. Alternative methods of construction not involving pile driving may be utilized. The update to Site 4 will not result in new or more severe impacts than what was analyzed in the Program EIR. Therefore, the Program EIR remains complete and adequate as it relates to relates to generation of excessive groundborne vibration or groundborne noise levels.

c) *A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project? This impact will occur if the proposed Project increases the CNEL at any noise-sensitive receptor by an audible amount of 3 dB or more when the CNEL is 65 dB or greater.* ***(No Substantial Change from Previous Analysis)***

No substantial permanent increase in ambient noise levels in the project vicinity above existing levels without the project will occur as a result of the update to the Site 4 project. The number of residential units has been decreased from 484 units to 393 units. In addition, the reduction in residential units results in fewer average daily trips than analyzed in the Program EIR for noise impacts. Therefore, the Program EIR remains complete and adequate as it relates to relates to this topic.

d) *A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project? This condition will occur if construction of the proposed Project increases the ambient noise level by 3 dB (A) or more.* ***(No Substantial Change from Previous Analysis)***

The Program EIR concluded that with the exception of construction noise, which is exempt from the City's noise standards, none of the five project sites will produce a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project. The update to Site 4 will have no new or more severe impacts

beyond those addressed in the Program EIR. Therefore, the Program EIR remains adequate and complete with respect to this topic.

e) *For a project located within an airport land use plan, or where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?* ***(No Substantial Change from Previous Analysis)***

John Wayne Airport (JWA) is located from 4,950 feet to 7,150 feet southeast of the project sites. The project sites are not within the Airport Land Use Commission (ALUC) adopted CNEL noise contours for JWA and are located outside the JWA 65 CNEL noise contour. In 2007, the City adopted an amendment to the Noise Element of the General Plan involving relief from exterior noise restriction of 65 dB CNEL for balconies and patios, and this amendment was contemplated and analyzed in the Program EIR. The proposed site plan revision will not result in a change to noise levels anticipated in the Program EIR and Site 4 remains outside of the 65 CNEL. Development of the project will have no new or more severe impacts beyond those addressed in the Program EIR. Therefore, the Program EIR remains adequate and complete with respect to this topic.

f) *For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?* ***(No Substantial Change from Previous Analysis)***

Development of the project will have no new or more severe impacts beyond those addressed in the Program EIR. The project is not located in the vicinity of a private airstrip. Therefore, the Program EIR remains adequate and complete with respect to this topic.

I. Population, Housing, and Employment

Would the project:

a) *Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example through extension of roads or other infrastructure)?* ***(No Substantial Change from Previous Analysis)***

The proposed project will continue to generate population growth; however, the projected increase in population will be less than analyzed due to the decrease in the number of residential units from 484 to 393 at Site 4. The proposed project impacts are less than significant as analyzed in the Program EIR and continue to be consistent with the City's General Plan. Therefore, the EIR remains adequate and complete for this topic.

b) *Displace substantial number of existing housing, necessitating the construction of replacement housing elsewhere?* ***(No Substantial Change from Previous Analysis)***

No existing housing will be disturbed with implementation of the proposed projects, as none exists on the project sites. Development of the modified site plan for the Site 4 project will have no new or more severe impacts beyond those addressed in the EIR. Therefore, the EIR remains adequate and complete with respect to this topic.

c) *Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?* ***(No Substantial Change from Previous Analysis)***

As noted in item b) above, no existing housing will be disturbed with implementation of the update to Site 4. Therefore, the Program EIR remains adequate and complete with respect to this topic.

J. Public Services

The Program EIR identified potential impacts to service providers as a result of the proposed project. Mitigation measures were included to reduce potential impacts to less than significant. Mitigation measures from the Program EIR are incorporated herein by reference and include PS-1 thru PS-4, which, per the Program EIR, reduced project impacts to a less than significant level.

a) *Would the project result in substantial adverse impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services?*

i) *Fire Protection? (No Substantial Change from Previous Analysis)*

The Program EIR identified that that an additional paramedic engine company with four additional personnel per shift was needed in the area to service the increase of 3,123 residents in the City of Costa Mesa by the development. Mitigation Measure PS-1 is included in the Program EIR requiring project developers to pay $469.35 per residential unit to the Costa Mesa Fire Department for their pro rata share of a new, fully equipped paramedic engine. The updated project for Site 4 reduces the number of residential units from 484 to 393 and reduces the population commensurately. Therefore, the Program EIR remains adequate and complete with respect to this topic.

ii) *Police Protection? (No Substantial Change from Previous Analysis)*

The Program EIR included Mitigation Measures PS-2, PS-3, PS-4, and conditions of approval designed to minimize impacts due to increases in police service demands with the implementation of the projects. Mitigation Measures PS-2 and PS-3 require the developers to provide private security during grading and construction operations. Mitigation Measure PS-4 requires the payment of pro rata share of fees to the Costa Mesa Police Department for the increased service capacity necessary to accommodate the development site. No changes have occurred in this area from the analysis provided in the Program EIR. The update to Site 4 will not have new or more severe impacts beyond those addressed and mitigated in the EIR because the number of residential units has been reduced from 484 units to 393 units.

iii) *Schools? (No Substantial Change from Previous Analysis)*

The Program EIR concluded that the Newport – Mesa Unified School District could accommodate the additional students generated by the development of the projects. No school sites are directly or indirectly impacted by the construction of the projects. The Program EIR included a condition of approval requiring payment of school fees for all new development. No changes have occurred in this area from the analysis provided in the Program EIR. The update to Site 4 will not have new or more severe impacts

beyond those addressed and mitigated in the EIR because the number of residential units has been reduced from the original analysis.

iv) Parks? (No Substantial Change from Previous Analysis)

The Program EIR concluded that impacts on recreational resources from adding 3,173 new residents are less than significant because the projects would pay park impact fees. The Program EIR included a Condition of Approval requiring developers to pay current park in-lieu fees at the time the subdivision map is filed with the City. While no changes have occurred to the City's Park Impact Fee program, that program applies to subdivisions only, and not to rental units. The Condition of Approval contained in the Program EIR is not applicable to the updated project because no subdivision map is proposed or required. Therefore, a new Condition of Approval will be added to require the Developer to enter into a development agreement with the City for payment of park fees.

As detailed in the project description above, the updated project includes extensive resident-serving amenities including more than 14,000 square feet of amenity space that may include uses such as workout rooms, group fitness, or other services for resident-related needs. The residential buildings also include four courtyards with pools and a spa, two dog runs, including one for large dogs and a second for smaller dogs, a dog wash, and a bike spa. The dog runs include synthetic turf with metal benches and low metal fencing. The internal building courtyards will contain landscaped areas for outdoor enjoyment, which will include progress green space ranging from contemplative, quiet areas to more active areas. Site 4 will not have new or more severe impacts beyond those addressed in the Program EIR, because the number of residential units has been reduced, a variety of resident-serving amenities will be provided on-site, and the project will be conditioned to enter into a development agreement to pay park fees.

v) Other Public Facilities? (No Substantial Change from Previous Analysis)

The Program EIR concluded that the project resulted in an increase of 2.5 percent in total population in the City of Costa Mesa and would have a significant impact on existing library services. The City's guidelines for 0.2 square feet of library per capita will be exceeded with the development of the five projects. This impact would be considered significant and unavoidable under project build-out conditions, and a statement of overriding considerations was adopted. No changes have occurred in this area from the analysis provided in the Program EIR. The modifications to Site 4 will not have new or more severe impacts beyond those addressed and mitigated in the EIR because the number of residential units has been reduced.

K. Aviation

Would the project:

a) *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area? ?* ***(No Substantial Change from Previous Analysis)***

JWA ranges from 4,950 feet to 7,150 feet southeast of the project sites. The project sites are within the Airport Planning Area established in the Airport Environs Land Use Plan

(AELUP) for JWA. The project sites are not within any ALUC's adopted Accident Potential Zone/Runway Protection Zone for JWA. The project sites are within the Height Restriction Zones established for JWA in the AELUP. The AELUP considers only one building height standard: the criteria established in Federal Aviation Regulations (FAR) Part 77. The NCMSP identifies that "buildings above 173 feet in height AGL will require approval by the Federal Aviation Administration (FAA)." The City of Costa Mesa Land Use Element Policy LU-1C.3 restricts the City's ability to approve a project that constitutes a hazard to air navigation as determined by the FAA. Two conditions were included in the Program EIR that required applicants to submit evidence of a Determination of No Hazard to Air Navigation by the FAA or in the event that the FAA determined the "building" was a "hazard," the building will be appropriately modified in order to obtain a Determination of No Hazard to Air Navigation. The building height has been significantly reduced from the original project approval.

In 2006 the ALUC issued an inconsistency finding with the 2002 JWA LUP for the North Costa Mesa High-Rise Projects. On November 21, 2006 the Costa Mesa City Council adopted Resolution No. 06-93 notifying the ALUC of the City's intention to adopt proposed findings and action to override the ALUC's finding of inconsistency. This updated project does not require a finding of consistency from the ALUC because it is consistent with the City's General Plan and the North Costa Mesa Specific Plan (personal communication with Kari Rigoni, Executive Officer ALUC, August 14, 2014).

The proposed update to Site 4 will result in the reduction in height of the residential structures from 306 feet AGL, analyzed in the Program EIR, to approximately 66 feet AGL with a roof segment that extends 74'10" over the lobby, the elevator, and stairway areas in Building A and Building B. This proposed modification to the building height complies with all height restrictions identified in the North Costa Mesa Specific Plan, which does not require the project to seek determination of "no hazard" from the FAA, because the building height is less than 173 feet AGL. However, the FAA Notice Criteria Tool was utilized to confirm that it is necessary to file a Form 7460-1 with the FAA. Form 7460-1 requires notice either 45 days prior to the start date of the proposed construction or alteration, or at the date an application for a construction permit is filed, whichever is earlier.

The project is consistent with the City's General Plan and will comply with FAA requirements. Therefore, the Program EIR remains complete and adequate as it relates to relevant Airport Land Use Plans.

b) *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?* ***(No Substantial Change from Previous Analysis)***

The project sites are outside the 65 CNEL noise contours for JWA. The City adopted an amendment to the Noise Element of the General Plan in 2006 regarding relief from the exterior noise restriction of 65 dB CNEL for balconies and patios as contemplated and analyzed in the Program EIR. The proposed update to Site 4 will result in a reduction in the height of the building from 306 feet AGL to 66 feet AGL with a roof segment that extends 74'10" over the lobby, the elevator, and stairway areas in Building A and Building B. The AELUP Height Restriction Zone noise levels generally apply to structures above 200 feet and therefore are no longer applicable. Development of the project will have no new or more severe impacts beyond those addressed in the Program EIR. Therefore, the Program EIR remains adequate and complete with respect to this topic.

c) *Would the project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?* ***(No Substantial Change from Previous Analysis)***

No change in air traffic patterns will occur as a result of the proposed project. Therefore, the EIR remains complete and adequate as it relates to this topic.

d) *Additional threshold of significance: Would the project meet with AELUP standards for Airspace/Airport Inconsistency as listed in AELUP Land Use Polices on page 126?* ***(No Substantial Change from Previous Analysis)***

As discussed above, the ALUC issued a finding of inconsistency with the AELUP for the proposed projects in 2006 because the Commission found that the project was not consistent with the JWA AELUP. The Costa Mesa City Council adopted Resolution No. 06-93, notifying the ALUC of the City's intention to adopt proposed findings and action to override the Orange County ALUC's finding, and Resolution No. 06-94 certifying Final Program EIR No. 1052. Therefore, the North Costa Mesa High-Rise Residential Projects is consistent with the policies listed in AELUP Land Use Polices because the AELUP provides for cities to override ALUC determinations if findings are made. The updated project for Site 4 results in a reduction in height from 306 feet AGL to approximately 66 feet AGL with a roof segment that extends 74'10" over the lobby, the elevator, and stairway areas in Building A and Building B. This reduction in building height would result in a consistency with AELUP standards although no consistency determination is required for the adoption of the Final Master Plan by the Planning Commission because the building height is less than 173 feet AGL. Therefore, the project analyzed in the Program EIR is reduced in height but it does not result in substantial change from the previous analysis.

e) *Additional threshold of significance: Would the project impact instrument procedures or minimums?* ***(No Substantial Change from Previous Analysis)***

No change in instrument procedures or minimums will occur as a result of the proposed project. The update to Site 4 results in a reduction in building height from a maximum of 306 feet AGL to 66 feet AGL. The Program EIR remains complete and adequate as it relates to impacts to instrument procedures or minimums.

L. Transportation and Circulation

A Traffic Study was prepared by Austin-Foust Associates, Inc. in July 14, 2006 for the North Costa Mesa High-Rise Residential Projects. The Program EIR provides analysis of the transportation and circulation impacts of the five project sites based on that study. An updated Traffic Impact Analysis Report was prepared by Linscott, Law & Greenspan Engineers (LLG) dated July 24, 2014, attached as Appendix B. The updated traffic study was conducted based on the updated plans for Site 4. The LLG analysis considered reduction of 91 residential units from 484 to 393 units, and determined that there would be an attendant reduction in the average trips per day generated by the updated project. Analysis of site access and circulation was also updated.

The Program EIR noted that the proposed project could be subject to potentially significant adverse transportation and circulation impacts. Mitigation measures from the Program EIR are incorporated herein by reference and include T-1 thru T-4. Mitigation Measures T-1 thru T-3 are not applicable to Site 4. Mitigation Measure T-4, per the Program EIR, reduced project parking impacts to a less than significant level. However, the updated project exceeds the City's parking standard by 9 parking spaces, providing 731 spaces when only 722 would be required to meet the updated project parking requirement.

In addition to compliance with Mitigation Measure T-4, the proposed project must also comply with the Orange County Congestion Management Program and contribute to the City's Traffic Fee Impact Program, as conditioned by the 2006 Program EIR.

Would the project:

a) *Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths and mass transit?* ***(No Substantial Change from Previous Analysis)***

Project site circulation will be maintained by an existing point of entry from Anton Boulevard at 585 Anton and from an internal drive connecting from Anton Boulevard at Sakioka to Avenue of the Arts, shown on Exhibit 25 – Proposed Site Plan.

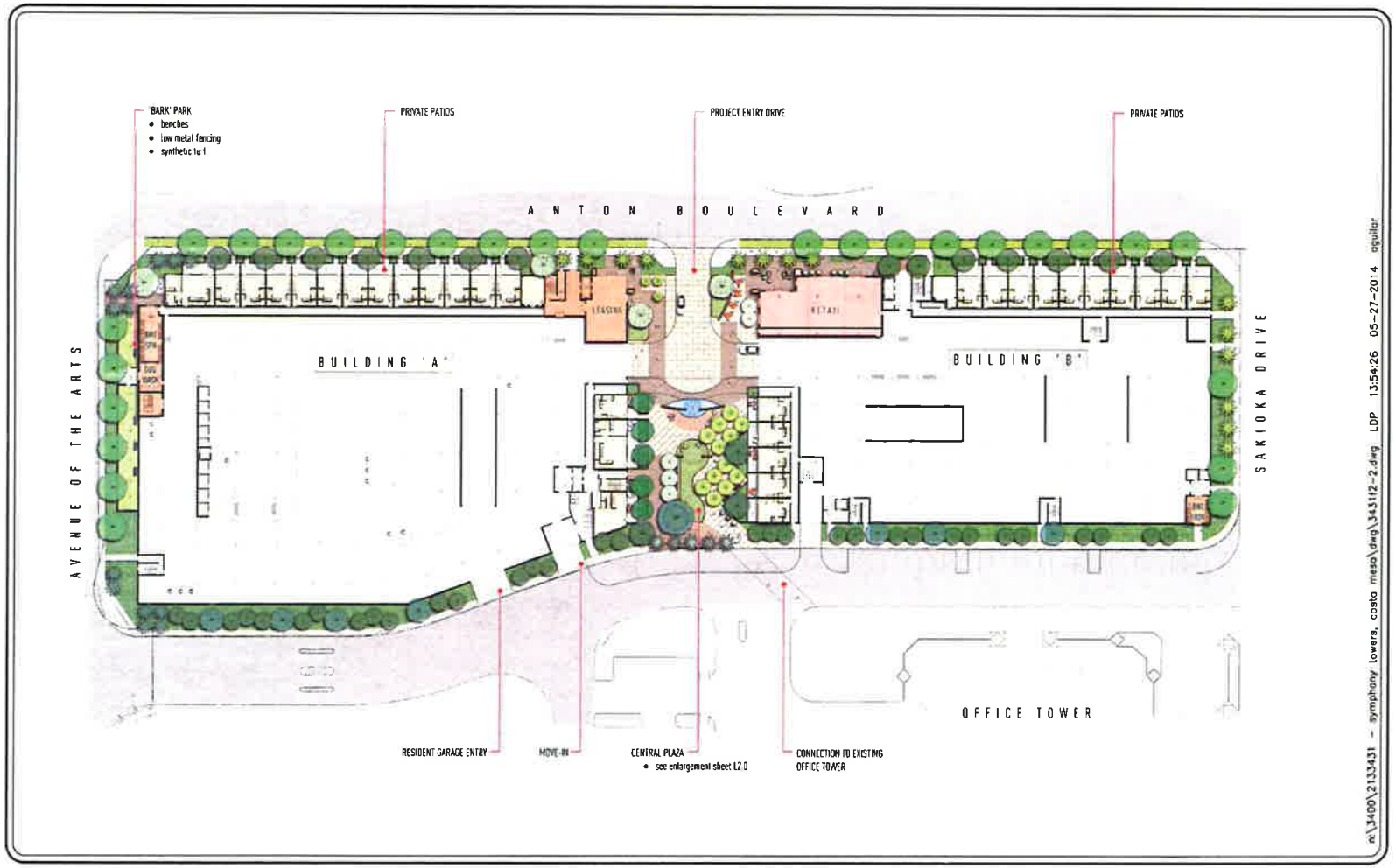
The 2006 Program EIR traffic analysis used the High-Rise Condo trip generation rate, Trip Generation, 7th Edition, ITE Apartment (220) rate for the high-rise residential units. For the purpose of comparison, the traffic analysis for the proposed project uses the same trip generation rate as the 2006 Program EIR, determining that the updated project would result in 310 fewer average daily trips with 19 fewer AM peak hour trips and 18 fewer PM peak hour trips than analyzed in the 2006 Program EIR. This represents a slight reduction in average daily trips and AM and PM peak hour trips and therefore, the updated project would not have any new or more severe impacts. The Program EIR remains adequate and complete with respect to this topic.

b) *Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?* ***(No Substantial Change from Previous Analysis)***

The Program EIR addressed traffic impacts to surrounding streets and freeways. The Program EIR concluded that the five project sites will not contribute to an increase in the level of traffic in the project vicinity that will result in cumulative impacts.

The Traffic Study analyzed four key intersections in the project area for existing traffic conditions and existing plus project traffic conditions for the potential of significant impacts. The intersections were chosen for their regional and local access to the project site. These intersections consist of:

2. Bristol Street at Anton Boulevard (signalized)
3. Avenue of the Arts at Anton Boulevard (signalized)
4. Marriott/580 Anton Driveway at Anton Boulevard (unsignalized)
5. Sakioka Drive at Anton Boulevard (signalized)



SOURCE: MJS DESIGN GROUP

LINSCOTT LAW & GREENSPAN engineers

N NO SCALE

FIGURE 2-2

PROPOSED SITE PLAN
SYMPHONY APARTMENTS, COSTA MESA

Exhibit 25 – Proposed Site Plan

The City maintains a threshold of level of service (LOS) D as the minimum acceptable level of service that should be maintained during the weekday AM peak hour and weekday PM peak hour. For signalized intersections, a significant impact would occur if the "with project" traffic is 0.91 or greater (LOS E or F), and if the increase attributable to the project is 0.01 or greater. As shown on Table 3 below, the proposed project would not create a significant impact on the studied intersections because none of the study intersections are expected to operate below LOS C.

Table 3 – Existing Plus Project Peak Hour Intersection Capacity Analysis

Key Intersection	Time Period	Existing Traffic Conditions		Existing Plus Project Traffic Conditions		Significant Impact		Existing Plus Project Plus Mitigation	
		ICU/HCM	LOS	ICU/HCM	LOS	Increase	Yes/No	ICU/HCM	LOS
1. Bristol St. at Anton Blvd.	AM	0.330	A	0.349	A	0.019	no	–	–
	PM	0.613	B	0.628	B	0.015	no	–	–
2. Ave. of the Arts at Anton Blvd.	AM	0.364	A	0.390	A	0.026	no	–	–
	PM	0.463	A	0.500	A	0.037	no	–	–
3. Marriott/580 Anton Dwy. at Anton Blvd.	AM	10.4 s/v	B	17.0 s/v	C	6.6 s/v	no	–	–
	PM	12.4 s/v	B	22.3 s/v	C	9.9 s/v	no	–	–
4. Sakioka Dr. at Anton Blvd.	AM	0.309	A	0.310	A	0.001	no	–	–
	PM	0.40	A	0.426	A	0.006	no	–	–

ICU = intersection capacity utilization; HCM = highway capacity manual; s/v = seconds per vehicle

The proposed revisions to the Site 4 project will result in fewer daily trips than the project as analyzed in the Program EIR, and the peak traffic volumes will remain at an acceptable Level of Service, as shown on Exhibit 26 – Year 2017 AM Peak Hour Cumulative Plus Project Traffic Volumes and Exhibit 27– Year 2017 PM Peak Hour Cumulative Plus Project Traffic Volumes. Therefore, the Program EIR remains complete and adequate in regards to analysis of exceeding, either individually or cumulatively, levels of service established by the County Congestion Management Agency.

c) *Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that result in substantial safety risks?* ***(No Substantial Change from Previous Analysis)***

No change in air traffic patterns will occur as a result of the proposed project. Therefore, the EIR remains complete and adequate as it relates to this topic.

d) *Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)?* ***(No Substantial Change from Previous Analysis)***

The analysis in the Program EIR considered traffic impacts on the existing streets within the five project sites and in the surrounding area. No design features or incompatible uses are proposed that would substantially increase hazards. The modifications to Site 4 include provision of resident and guest parking access directly from Anton Boulevard and resident-only access from the internal drive. Therefore, the Program EIR remains complete and adequate as it relates to relates to the project's design features.

e) *Result in inadequate emergency access? (No Substantial Change from Previous Analysis)*

No change in emergency access will occur as a result of the proposed modifications to the Site 4 project, as it will still be maintained with the internal drive between Avenue of the Arts and Sakioka Drive. Therefore, the Program EIR remains complete and adequate as it relates to relates to emergency access.

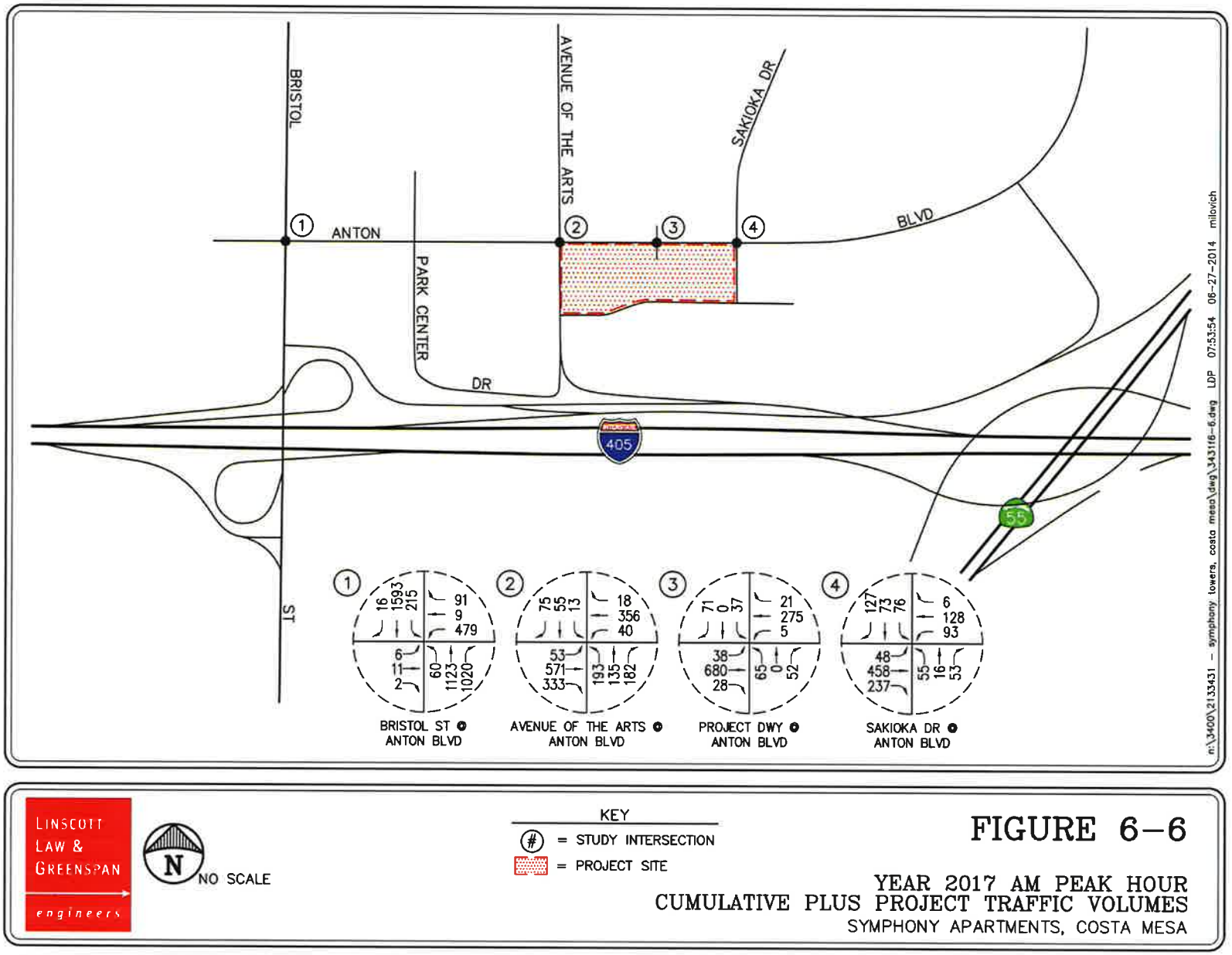


Exhibit 26 – Year 2017 AM Peak Hour Cumulative Plus Project Traffic Volumes

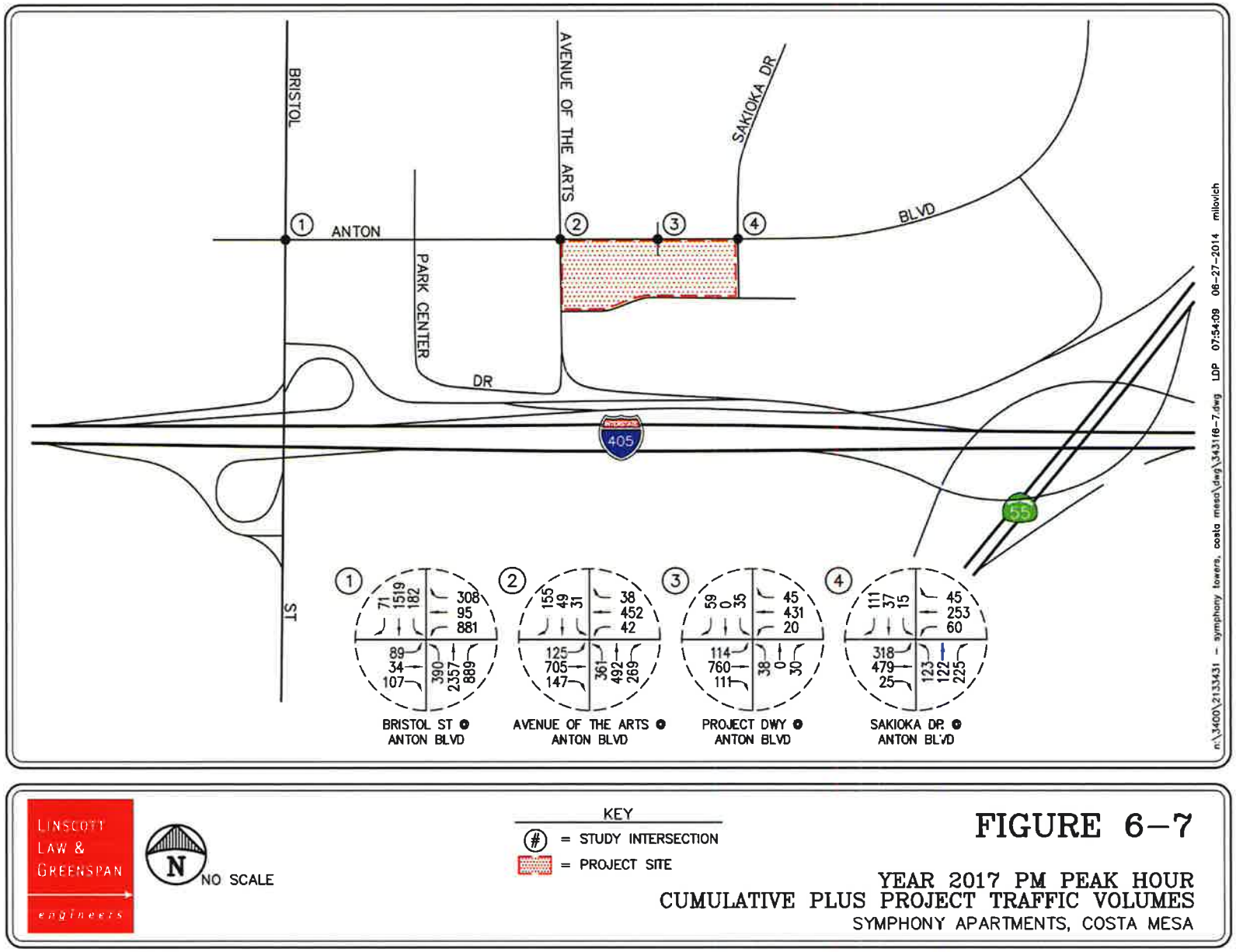


Exhibit 27 – Year 2017 PM Peak Hour Cumulative Plus Project Traffic Volumes

f) Conflict with adopted policies, plans or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

The Program EIR analyzed consistency with adopted policies, programs, and facilities, and found that the proposed project would not decrease their performance or safety. The updated project maintains the same circulation patterns as the analyzed in the Program EIR, and will generate approximately 310 fewer average daily trips. Therefore, the Program EIR remains complete and adequate as it relates to relates to public transit, bicycle, and pedestrian facilities.

g) Result in inadequate parking capacity? (No Substantial Change from Previous Analysis)

The Program EIR analyzed parking demands and capacity, and included Mitigation Measure T-4, which is applicable to Site 4. Mitigation Measure T-4 requires the project to comply with the parking standard of 1.5 to 2.0 spaces per unit for tenants, 0.5 spaces per unit for guests for the first 50 units, and 0.25 spaces per unit thereafter, or to prepare a parking analysis that demonstrated adequacy of the proposed parking. Since the approval of the Program EIR, parking capacity is no longer analyzed in CEQA. However, Mitigation Measure T-4 will remain in effect, and the following information is provided for the purpose of retaining consistency between this addendum and the Program EIR.

The Program EIR's project description for Site 4 included 1,142 residential and 30 retail parking spaces based on 484 residences and 6,000 square feet of retail space. The update to Site 4 contains a residential unit mix of 362 apartment units and 31 lofts for a total of 393 units. The proposed project will provide 731 parking spaces consisting of 611 resident spaces and 111 guest spaces. This will exceed the City requirement of 722 spaces by 9 spaces, as shown below in Table 4.

Table 4 – Parking Data

	Parking Factors	Parking Spaces
Required Parking		
Resident parking	393 units × 1.5 spaces per unit	590
Retail	4,037 SF × 5 spaces per 1,000 SF	21
Guest parking (first 50 units)	0.5 spaces per unit for first 50 units	25
Guest parking (50+ units)	0.25 spaces per unit for >50 units	86
	Total Required Spaces	**722**
Provided Parking		
Tandem		15
Regular		699
Compact		17
	Total Provided Spaces	**731**

In addition to the required parking standards, the 2006 Program EIR identifies a parking structure that was approved to be built on an existing square parking lot at the east side of the site, across the internal drive. However, as noted above, the decrease in parking demands due to a decrease in residential units and an on-site parking garage have negated the necessity of an additional parking structure. With the proposed project update, the property located across the internal drive will remain as exists, and is no longer considered a part of the project.

The 2006 Program EIR identifies a separate property included as part of Site 4 at the southeast corner of the block, adjacent to the I-405 Freeway. Development of this property with an extension to the existing parking structure will remain as originally proposed, and is

conditioned to be constructed concurrently with the rest of Site 4. The proposed extension would provide an additional three stories to an existing parking structure, providing an additional 220 parking spaces for the project and the surrounding area.

The modifications to Site 4 will not result in new or more severe impacts than what was analyzed in the Program EIR. Therefore, the Program EIR remains adequate and complete concerning provision of adequate parking.

g) *Conflict with adopted policies, plans or programs supporting alternative transportation (e.g. bus turnouts, bicycle racks)?* ***(No Substantial Change from Previous Analysis)***

The proposed project will not conflict with adopted policies, plans, or programs supporting alternative transportation. The updated Site Plan for Site 4 includes a bike spa for the secure storage and maintenance of bikes, within the project design for residents to utilize to encourage use of alternative transportation. The Program EIR remains complete and adequate as it relates to this topic.

M. Utilities

The Program EIR noted that the proposed project could be subject to potentially significant adverse utilities impacts. Conditions of Approval applicable to all sites and Mitigation Measure U-1, applicable only to Site-1 from the Program EIR are incorporated herein by reference and per the Program EIR will reduce project impacts to a less than significant level.

Would the project:

a) *Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?* ***(No Substantial Change from Previous Analysis)***

No wastewater treatment requirements of the RWQCB are applicable to the proposed project. The project and the update to Site 4 will have no new or more severe impacts beyond those addressed in the Program EIR. Therefore, the Program EIR remains adequate and complete with respect to this topic.

b) *Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?* ***(No Substantial Change from Previous Analysis)***

The projects will not result in the construction of new water or wastewater treatment facilities or expansion of existing facilities with the implementation of project. The project and update to Site 4 will have no new or more severe impacts beyond those addressed in the Program EIR. Therefore, the Program EIR remains adequate and complete with respect to this topic.

c) *Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?* ***(No Substantial Change from Previous Analysis)***

As detailed in the Program EIR, the current storm drain system has adequate capacity to accommodate the proposed projects. The previous analysis contemplated that Site 4 was to be entirely developed with impermeable surfaces. The proposed site plan for Site 4 will also be entirely developed with impermeable surfaces. Thus, no adverse impact on the existing storm water drainage facilities is anticipated because the project as proposed will not significantly differ in terms of runoff from the project analyzed in the Program EIR. The update to Site 4

will have no new or more severe impacts beyond those addressed and mitigated in the Program EIR.

d) *Have sufficient water supplies available to serve the project from existing entitlements and resources or are new or expanded entitlements needed?* ***(No Substantial Change from Previous Analysis)***

The Program EIR analyzed the water supply availability and concluded that sufficient water supplies are available during normal, single dry, and multiple dry water years during a 20-year projection to meet the anticipated water demand for the five project sites. A condition of approval has been included herein requiring coordination with the Mesa Water District. The update to Site 4 will have no new or more severe impacts beyond those addressed and mitigated in the EIR.

e) *Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?* ***(No Substantial Change from Previous Analysis)***

The Program EIR identified Mitigation Measure U-1 for wastewater impacts from Site 1 with the project implementation. Mitigation Measure U-1 requires the developer of Site 1 to prepare plans to redirect wastewater flows to a northerly direction from Site 1. Sites 2, 3, 4 and 5 were found to exceed design criteria but within the safe operation parameters of the sewer system. No changes have occurred in this area from the analysis provided. The update to Site 4 will not have new or more severe impacts beyond those addressed and mitigated in the Program EIR because the number of residential units has been reduced by 91 units from 484 to 393, thereby reducing wastewater quantities. Therefore, the Program EIR remains adequate and complete for this topic.

f) *Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?* ***(No Substantial Change from Previous Analysis)***

The Program EIR analyzed the landfill capacity to meet the anticipated solid waste disposal demand for the five project sites. The Program EIR concluded that the Bowerman Landfill has the capacity to accept the proposed solid waste generated by the projects. The update to Site 4 will have no new or more severe impacts beyond those addressed and mitigated in the Program EIR because there is a reduction in the number of residential units, reducing the amount of solid waste. Therefore, the EIR remains adequate and complete for this topic.

g) *Comply with federal, state, and local statutes and regulations related to solid waste?* ***(No Substantial Change from Previous Analysis)***

The Program EIR included standard conditions of approval designed to reduce solid waste generation during construction. No changes have occurred in this area from the analysis provided in the Program EIR. The update to Site 4 will not result in new or more severe impacts beyond those addressed and mitigated in the Program EIR.

N. Mandatory Findings of Significance

a) *Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?* ***(No Substantial Change from Previous Analysis)***

Impacts to the environment were analyzed in the Program EIR. Due to the location of the project on a previously developed, urbanized site, no impacts to biological resources will occur. The proposed project will not degrade the quality of the environment or substantially reduce the habitat or endanger a fish, wildlife, or plant species. Therefore, the Program EIR, as addended, remains adequate and complete.

b) *Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?* ***(No Substantial Change from Previous Analysis)***

The Program EIR stated that the project would contribute cumulatively significant adverse emissions of ROG and NO_X, and operations-related emission of ROG to the South Coast Air Basin, which is already a non-attainment area. This addendum specifically addresses GHG, which the 2006 Program EIR was not required to do. Emissions associated with GHG will exceed SCAQMD thresholds; however, the proposed project represents a 36.59 percent decrease in emissions, as compared with the entitled project. The impacts from these criteria pollutants in conjunction with anticipated growth in the area are significant and adverse and cannot be mitigated to levels of insignificance. The update to Site 4 will have no new or more severe impacts beyond those addressed and mitigated in the Program EIR.

c) *Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?* ***(No Substantial Change from Previous Analysis)***

Mitigation measures have been provided in the North Costa Mesa High-Rise Residential Projects Program EIR to reduce impacts. The update to Site 4 will have no new or more severe impacts beyond those addressed and mitigated in the Program EIR.

Conclusion

This document constitutes the Addendum to the North Costa Mesa High-Rise Residential Projects Final Program Environmental Impact Report SCH 2006011077 (Program EIR) as adopted and certified by the City of Costa Mesa. This document complies with all relevant California Environmental Quality Act (CEQA) standards to determine if the EIR remains adequate to address the impacts resulting from the proposed project pursuant to CEQA Guidelines §15164.

Approval of the Addendum by the City will not require circulation of the document for public review. (CEQA Guidelines §15164) The Addendum will be included as part of the Final Program Environmental Impact Report. No changes or modifications are proposed to the original project that would require major revisions to the Program EIR. No additional mitigation measures are required in the Addendum to reduce impacts from the project to a less than significant level. No new information of substantial importance or new significant impacts will result from the modification to Site 4 described above and the previously approved project is consistent with CEQA Section 15064. Based on the analysis herein, the North Costa Mesa Residential High-Rise Projects Program EIR remains adequate and complete for the project modifications discussed in this Addendum.

The Addendum will require approval by the City of Costa Mesa Planning Commission. In taking action on the Addendum the City, as Lead Agency, must consider the whole of the data presented in the North Costa Mesa Residential High-Rise Projects Final Program EIR and this Addendum to the Program EIR. No additional approvals are necessary.

Pursuant to CEQA §21166 and §15162, there is no evidence that the project or its underlying circumstances have changed in a way that exposes new or more severe impacts than those reported in the North Costa Mesa Residential High-Rise Projects Final Program Environmental Impact Report as addended. Furthermore, there is no new information that indicates project alternatives or mitigation measures previously found infeasible are now feasible or have not been accepted and incorporated into the project. Therefore, reliance on the Final Program Environmental Impact Report as addended will still provide the public and decision makers with all information necessary to evaluate the plan from an environmental perspective.

Inventory of Applicable Mitigation Measures

In adopting the Final Program EIR, the City's findings and resolutions contained 29 mitigation measures and 40 conditions of approval based on refinements and revisions made to the mitigation measures and the conditions of approval presented in the DEIR. The 29 mitigation measures and 40 conditions of approval were incorporated in the certified resolution.

All mitigation measures and conditions of approval will either be met in development or are a requirement of City ordinance. Each of these conditions, policies, and mitigation measures will be reviewed during the normal review process. Additionally, uniformly applied policies and standards generated to ensure substantial mitigation of environmental effects are applied as conditions of approval or as routine steps in the development process. A Mitigation Monitoring Program has been adopted as part of the approval process to ensure methods, timing, and responsible parties to monitor all mitigation measures. No refinements in Mitigation Monitoring are required.

The original conditions of approval (COA) for Site 4 are carried forward. There was a condition of approval in the Final EIR (Section 5.11, page 324) that required the payment of park fees. The City's park fees only relate to subdivisions. Because the project proposed in this Addendum is not a subdivision, a new Condition of Approval (COA 4) is created to replace the park fee requirement, which no longer applies, to ensure that there is no impact to parks. In addition to the original conditions, the following conditions shall be incorporated.

COA 1: Prior to the issuance of demolition/grading permits, the project applicant shall submit verification to the City that approval of the relocation of the existing on-site utility easement has been granted by the easement holder.

COA 2: Prior to the issuance of Certificate of Occupancy for the first building constructed, displaced parking shall be provided for South Coast Metro in the form of an additional 220 spaces in parking structure B (as approved per PA-07-29 described on page 19 herein), or alternative measures approved by the Planning Director.

COA 3: In the event of future parking shortages new measures, including but not limited to valet and use of upper deck for employees, shall be implemented to accommodate on-site parking needs.

COA 4: The project applicant shall enter into a development agreement reviewed and approved by the City Council for the payment of park fees. The obligations required by the development agreement shall be met prior to the issuance of Certificates of Occupancy.

Environmental Checklist

For CEQA Compliance

1.	Project Title:	Expanded Initial Study and Addendum to Final Program EIR for North Costa Mesa High-Rise Residential Projects – SCN 2006011077
2.	Lead Agency Name/Address:	City of Costa Mesa 77 Fair Drive Costa Mesa, California 92628
3.	Contact Person/Phone No.:	Minoo Ashabi (714) 754-5610
4.	Project Location:	Southeast corner of Anton Blvd and Avenue of the Arts Costa Mesa, California (585 Anton Boulevard)
5.	Project Sponsor Name/Address:	Sakioka Company, LLC 14850 Sunflower Avenue Santa Ana, CA 92707
6.	General Plan Designation:	High Density Residential
7.	Zoning:	North Costa Mesa Specific Plan

8. Description of Project: (Describe the whole action involved, including but not limited to later phases of the project, and any secondary, support, or off-site features necessary for its implementation. Attach additional sheets if necessary.)

   The project involves an update to Site 4 that results in changing the two high-rise residential towers to two 6-level mid-rise residential structures. The modifications to Site 4 include a reduction in residential units from 484 to 393, reducing 6,000 square feet of previously proposed resident serving retail use to 4,104 square feet and providing 14,317 square feet of resident amenities. The modification to the Site 4 site plan includes one resident and guest driveway on Anton Boulevard, and provides a resident-only access from an internal drive.

9. Surrounding Land Uses and Setting: (Briefly describe the project's surroundings.)

   Project Site 4 is located at the southeast corner of Anton Boulevard and Avenue of the Arts in northeast Costa Mesa and within the North Costa Mesa Specific Plan area. The five project sites are located within the City of Costa Mesa, north of the I-405 Freeway, and generally bounded by Anton Boulevard to the north, Sakioka Drive to the west, Avenue of the Arts to the east, and the I-405 Freeway to the south. John Wayne Airport ranges from 4,950 feet to 7,150 feet southeast of the project sites. Surrounding land uses include the Marriott hotel to the north, a 24-Hour Fitness to the south, Office Buildings to the east, and a TGI Fridays and Noguchi Garden to the west.

10. Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement.)

    None.

Environmental Factors Potentially Affected:

The environmental factors checked below would be potentially affected by that project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

- ☐ Aesthetics
- ☐ Agricultural Resources
- ☐ Air Quality
- ☐ Biological Resources
- ☐ Cultural Resources
- ☐ Geology / Soils
- ☐ Hazards and Hazardous Materials
- ☐ Hydrology / Water Quality
- ☐ Land Use / Planning
- ☐ Mineral Resources
- ☐ Noise
- ☐ Population / Housing
- ☐ Public Services
- ☐ Recreation
- ☐ Transportation / Traffic
- ☐ Utilities / Service Systems
- ☐ Mandatory Findings of Significance

Environmental Determination (to be completed by the Lead Agency)

On the basis of this initial evaluation:

- ☐ I find that the proposed project COULD NOT have a significant effect on the environment and a NEGATIVE DECLARATION will be prepared.
- ☐ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions to the project have been made by or agreed to by the applicant. A MITIGATED NEGATIVE DECLARATION will be prepared.
- ☐ I find that the proposed project MAY have a significant effect on the environment and an ENVIRONMENTAL IMPACT REPORT is required.
- ☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on the attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- ☒ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects 1) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and 2) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature	10-1-14 Date
Minoo Ashabi Printed Name	City of Costa Mesa For

Evaluation of Environmental Impacts:

1. A brief explanation is required for all answers except "No Substantial Change from Previous Analysis" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Substantial Change from Previous Analysis" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Substantial Change from Previous Analysis" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is a "New Significant Impact," a "More Severe Impact," or "No Substantial Change from Previous Analysis." "More Severe Impacts" is appropriate if there is substantial evidence that an effect may be significant. If one or more entries are "New Significant Impacts" or "More Severe Impacts" when the determination is made, an EIR is required.
4. "No Substantial Change from Previous Analysis" applies where the incorporation of mitigation measures has reduced an effect from "New Significant Impacts" or "More Severe Impacts" to "No Substantial Change from Previous Analysis". The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section XVII, "Earlier Analysis," may be cross-referenced).
5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
   a. Earlier Analysis Used. Identify and state where they are available for review.
   b. Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
   c. Mitigation Measures. For effects that are "No Substantial Change from Previous Analysis," describe the mitigation measures that were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
9. The explanation of each issue should identify:
   a. the significance criteria or threshold, if any, used to evaluate each question; and
   b. the mitigation measure identified, if any, to reduce the impact to less than significance

Issues	New Significant Impacts	More Severe Impacts	No Substantial Change from Previous Analysis
I. Aesthetics – Would the project:			
a. Have a substantial adverse effect on a scenic vista?	☐	☐	☒
b. Substantially damage scenic resources, including but not limited to, trees, rock outcroppings and historic buildings within a state scenic highway?	☐	☐	☒
c. Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒
d. Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?	☐	☐	☒
e. Have a substantial adverse effect of shade and shadow on sensitive uses	☐	☐	☒
II. Air Quality – Where available, the significance criteria established by the applicable air quality management or pollution control district may be relied upon to make the following determinations. Would the project:			
a. Conflict with or obstruct implementation of applicable air quality plan?	☐	☐	☒
b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☒
c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☒
d. Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒
e. Create objectionable odors affecting a substantial number of people?	☐	☐	☒
III. Geology and Soils – Would the project:			
a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:			
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒
ii. Strong seismic ground shaking?	☐	☐	☒
iii. Seismic-related ground failure, including liquefaction?	☐	☐	☒
iv. Landslides?	☐	☐	☒
b. Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	☒
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☒
e. Have solid incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☒
Greenhouse Gas Emissions – Would the project:			
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒
IV. Hazards and Hazardous Materials – Would the project:			
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒

Issues		New Significant Impacts	More Severe Impacts	No Substantial Change from Previous Analysis
d.	Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code §659662.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☒
e.	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒
f.	Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☒
V.	Hydrology and Water Quality – Would the project:			
a.	Violate any water quality standards or waste discharge requirements?	☐	☐	☒
b.	Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☒
c.	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of stream or river, in a manner that would result in flooding on or off-site?	☐	☐	☒
d.	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on-or off-site?	☐	☐	☒
e.	Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☒
f.	Otherwise substantially degrade water quality?	☐	☐	☒
g.	Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☒
h.	Place within a 100-year flood hazard area structures that would impede or redirect flood flows?	☐	☐	☒
i.	Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☒
j.	Inundation by seiche, tsunami, or mudflow?	☐	☐	☒
k.	Result in project construction impact on storm water runoff?	☐	☐	☒
l.	Result in post-construction activity impact on storm water runoff?	☐	☐	☒
m.	Result in discharge of storm water pollution from areas of material storage, vehicle or equipment fueling, vehicle or equipment maintenance (including washing), waste handling, hazardous materials handling or storage, delivery areas, loading docks, or other outdoor work areas?	☐	☐	☒
n.	Result in discharge of storm water to affect the beneficial uses of the receiving waters	☐	☐	☒
o.	Result in significant changes in the flow velocity or volume of storm water runoff to cause environmental harm.	☐	☐	☒
p.	Result in significant increases in erosion of the project site or surrounding area.	☐	☐	☒
VI.	Land Use and Planning – Would the project:			
a.	Physically divide an established community?	☐	☐	☒
b.	Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒
c.	Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☒

Issues	New Significant Impacts	More Severe Impacts	No Substantial Change from Previous Analysis
VII. Noise – Would the project result in:			
a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒
b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒
c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒
d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☒
f. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☒
VIII. Population and Housing – Would the project:			
a. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☒
b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☒
c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☒
IX. Public Services - Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ration, response times or other performance objectives for any of the public service:			
a. Fire protection?	☐	☐	☒
b. Police protection?	☐	☐	☒
c. Schools?	☐	☐	☒
d. Parks?	☐	☐	☒
e. Other public facilities?	☐	☐	☒
X. Aviation			
a. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles where of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☒
b. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☒
c. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☒
d. Result in AELUP standards for Airspace/Airport Inconsistency as listed in AELUP Land Use Polices	☐	☐	☒
e. Result in the project adverse impact to instrument procedures or minimums	☐	☐	☒
XI. Transportation/Traffic – Would the project:			
a. Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☒

Issues		New Significant Impacts	More Severe Impacts	No Substantial Change from Previous Analysis
b.	Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	☒
c.	Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☒
d.	Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒
e.	Result in inadequate emergency access?	☐	☐	☒
f.	Conflict with adopted policies, plans or programs regarding public transit, bicycle, or pedestrian facilities or otherwise decrease the performance or safety of such facilities?	☐	☐	☒
g.	Result in inadequate parking capacity?	☐	☐	☒
XII.	Utilities and Service Systems – Would the project:			
a.	Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☒
b.	Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒
c.	Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒
d.	Are sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☒
e.	Result in the determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒
f.	Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒
g.	Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☒
XIII.	Mandatory Findings of Significance			
a.	Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☒
b.	Does the project have impacts that are individually limited but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, effects of other current projects and the effects of probable future projects).	☐	☐	☒
c.	Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒

Checklist prepared by CAA Planning on behalf of the City of Costa Mesa

65 Enterprise, Suite 130
Aliso Viejo, CA 92656
(949) 581-2888

Appendix A

Symphony Apartments Climate Change & Greenhouse Gas Emissions Impact Analysis dated July 25, 2014

KPC EHS Consultants

915 Doyle Road
Suite 303-151
Deltona, FL 32738
386-643-4701
951-294-0822

July 25, 2014

KPC EHS Consultants (KPC) completed a Climate Change and Greenhouse Gas (GHG) review of the amended Symphony Apartments project located in the City of Costa Mesa, Orange County, California.

The review included utilizing the SCAQMD's CalEEMod for emissions modeling estimates to determine the projects potential impacts on climate change and GHG formation. CalEEMod default values were used when project specific information was not available. No mitigation measures were assumed and as such the emissions estimates represent a worst-case scenario.

The emissions estimates for Carbon Dioxide equivalent (CO2e) for the amended project and currently entitled project for operations along with the 30-year amortization of construction CO2e emissions were compared to determine the reduction in GHG emissions that the amended project will result in. The original entitled project if constructed with 484 residential units, parking, and 6,000 square feet of retail space would result in approximately 7,677.92 CO2e MT/yr. The amended project including a reduction of residential units to 393, parking, and reduction of retail space to 4,107 square feet would result in a reduction of estimated GHG to approximately 4,868.27 CO2e MT/yr. The amended project would result in a decrease in GHG emissions of approximately 2,809.65 CO2e MT/yr., which is a reduction in estimated GHG emissions between the two projects by 36.59%.

Please feel free to contact me for any questions.

Thank you,

Kevin Carr
President
KPC EHS Consultants
951-294-0822

KPC EHS Consultants

Symphony Apartments Climate Change & Greenhouse Gas Emissions Impact Analysis

Project Description:

The proposed project is located at south of Anton Boulevard between Avenue of The Arts and Sakioka Drive in the City of Costa Mesa, Orange County, California. The proposed project includes a modification of the original approved project that included high-rise residential towers with 484 residential condominiums/apartment and 6,000 sq. ft. of retail space. The modified project proposes the a mid-rise residential towers parking structure with 393 residential units, 731 parking spaces, and 4,107 sq. ft. of retail space.

Climate Change & Greenhouse Gas Emissions:

The proposed project was previously studied for Air Quality compliance as part of the original project approval for two towers with a total or 484 residential units and 6,000 square feet of retail space. The modification to the project includes a reduction of units down to 393 units and reducing the retail space to 4,107 square feet. Since the project's approval the State now requires that each lead agency determine and quantify the potential impacts of a project on climate change and greenhouse gas emissions. This report looks at these new requirements for compliance with climate change and GHG emissions during construction and operation of the proposed project.

The Air Resources Board approved a *Climate Change Scoping Plan* in December 2008. The *Scoping Plan* outlines the State's strategy to achieve the 2020 greenhouse gas emissions limit. The Scoping Plan "proposes a comprehensive set of actions designed to reduce overall greenhouse gas emissions in California, improve our environment, reduce our dependence on oil, diversify our energy sources, save energy, create new jobs, and enhance public health" (California Air Resources Board 2008).

The *Scoping Plan* calls for an "ambitious but achievable" reduction in California's greenhouse gas emissions, cutting approximately 30 percent from business-as-usual emission levels projected for 2020, or about 10 percent from today's levels.

To assist in determining a project's impacts on climate change and GHG emissions the South Coast Air Quality Management District (SCAQMD) the lead agency concerning air quality in the area of the proposed project site adopted an interim significance threshold for industrial projects in 2008. In 2010 revisions and recommendations for residential and commercial project significance thresholds were made with the residential significance threshold recommended at 3,000 CO2equivilant (CO2e) Metric Tons per year, (MT/yr).

Project Climate Change and GHG Impacts Analysis:

Greenhouse Gas Emissions for the amended project were modeled using the SCAQMD's CalEEMod computer air emissions modeling program to estimate emissions generated during construction and operation of the proposed project. The proposed project construction was estimated to run from January 2015 until February 2016, with operation of the project starting in the year 2016. Default values were used in CalEEMod when specific project information was not available. Traffic data for the project was taken form the projects updated Traffic Impact Analysis dated Jun 30, 2014 by Linscott, Law, & Greenspan. Estimated project GHG emissions include 30-year amortized emissions for construction, mobile sources (per the project specific TIA), area sources, energy, solid waste, and water/wastewater sources.

To determine the effects of the amended project on climate change the original entitled project consisting of 484 residential units, parking, and 6,000 square feet of retail space was modeled using CalEEMod computer air emissions modeling program to estimate emissions generated during construction and operation should the entitled project be constructed. The entitled project emissions model was run under the same defaults and conditions as the amended project and the retail traffic vehicle trips per day was set to equal the 175 trips estimated in the current TIA to ensure an accurate comparison of the entitled and amended project's emissions. Estimated GHG emissions include 30-year amortized emissions for construction, mobile sources (per the project specific TIA), area sources, energy, solid waste, and water/wastewater sources.

Table #1 is analysis of the proposed updated projects GHG emissions estimates, Table #2 is an analysis of the currently entitled project with 484 residential units.

Table 1. Project Greenhouse Gas Emissions (Unmitigated)

Source	GHG Emissions MT/yr.			
	N20	Total CO2	CH4	CO2e
Mobile Sources	0.000	3,167.50	0.1323	3,170.28
Area	0.0028	128.60	0.1313	132.23
Energy	0.0139	1,237.12	0.0505	1,242.46
Solid Waste	0.000	46.05	2.7215	103.20
Water/Wastewater	0.0221	160.01	0.8809	185.35
30-year Amortized Construction GHG				34.73
TOTAL				*4,868.27*
SCAQMD Threshold				**3,000**
Exceed Threshold?				**Yes**

Table 2. Project Greenhouse Gas Emissions (Unmitigated)

Source	GHG Emissions MT/yr.			
	N20	Total CO2	CH4	CO2e
Mobile Sources	0.000	5,591.23	0.2311	5,596.08
Area	0.003	158.37	0.1617	162.85
Energy	0.017	1,511.96	0.0613	1,518.55
Solid Waste	0.000	59.22	3.500	132.72
Water/Wastewater	0.027	198.45	1.0955	229.96
30-year Amortized Construction GHG				37.78
TOTAL				*7,677.92*
SCAQMD Threshold				**3,000**
Exceed Threshold?				**Yes**

Conclusion:

As shown in Table 1, the projected total GHG emissions from the amended project to be approximately 4,868.27 CO2e MT/yr. As shown in Table 2, the entitled project with 484 residential units would result in estimated GHG emissions of approximately 7,677.92 CO2e MT/yr. Although the amended proposed project would result in GHG emissions in excess of the interim SCAQMD Threshold the project would reduce GHG emissions by approximately 2,809.65 CO2e MT/yr., which is a reduction in estimated GHG emissions between the two projects by 36.59%.

The project would be required to comply with all applicable regulations, such as Title 24 and CalGreen, which would result in lower GHG emissions then those modeled. The modeling for GHG emissions estimates did not include any mitigation measure and therefore, the GHG impact can be reduced from the current estimates by incorporating mitigation as outlined in the California Air Pollution Control Officers Association (CAPCOA) Quantifying Greenhouse Gas Mitigation Measures, dated August 2010.

Appendix A – CalEEMod Annual Report Symphony Apartments Amended Project

Appendix B – CalEEMod Annual Report Symphony Apartments Entitled Project

Appendix A

Symphony Apartments

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	393.00	Dwelling Unit	4.86	393,000.00	858
Fast Food Restaurant w/o Drive Thru	4.00	1000sqft	0.00	4,000.00	0
Enclosed Parking with Elevator	731.00	Space	0.00	292,400.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	8			**Operational Year**	2016
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Symphony Apartment Project - Modeling for GHG Assessment.

Land Use - Total acreage for project site = 4.86
Population changed to reflect 239 one-bdrm & 154 two-bdrm units. CalEEMod default is 2.86 per unit, recalculated with 1.75 for 1-bdrm and 2.86 for 2-bdrm units.

Construction Phase - Default schedule and phasing used for project construction estimates.

Demolition - Demolition of existing resturant uses 16,500sf.

Vehicle Trips - Trip rates adjusted per TIA dated 6/30/14. Residential H-S and H-O Trip miles reduced due to the urban location and proximity to shopping, malls, and entertainment venues.

Off-road Equipment - CalEEMod default construction off-road equipment used for GHG Modeling.

Trips and VMT - Default construction Trips and VMT used for GHG modeling.

Area Mitigation -

Mobile Land Use Mitigation -

Energy Mitigation - Exceed Tite 24 by 10%
Install HighEfficiency Lighting 10% reduction.

Water Mitigation - Install all low-flow fixtures in residential units.

Waste Mitigation - Project will need to comply with AB341 California's mandatory recycling law for commercial and multi-family sectors. AB-341 goal is 75% reduction by 2020 - estimated 35% reduction for project.

Table Name	Column Name	Default Value	New Value
tblLandUse	LotAcreage	10.34	4.86
tblLandUse	LotAcreage	0.09	0.00
tblLandUse	LotAcreage	6.58	0.00
tblLandUse	Population	1,124.00	858.00
tblProjec:Characteristics	OperationalYear	2014	2016
tblVehicleTrips	HO_TL	8.70	4.35
tblVehicleTrips	HS_TL	5.90	2.95
tblVehicleTrips	ST_TR	7.16	6.59
tblVehicleTrips	ST_TR	696.00	43.75
tblVehicleTrips	SU_TR	500.00	43.75
tblVehicleTrips	WD_TR	716.00	43.75

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2015	1.7239	5.5819	7.1755	0.0122	0.6470	0.3052	0.9522	0.1924	0.2859	0.4784	0.0000	1,039.8886	1,039.8886	0.1158	0.0000	1,042.3207
2016	5.0233	0.2309	0.2397	4.2000e-004	0.0150	0.0140	0.0290	3.9900e-003	0.0130	0.0170	0.0000	35.5726	35.5726	6.1700e-003	0.0000	35.7022
Total	**6.7472**	**5.8128**	**7.4152**	**0.0126**	**0.6620**	**0.3191**	**0.9811**	**0.1964**	**0.2990**	**0.4954**	**0.0000**	**1,075.4612**	**1,075.4612**	**0.1220**	**0.0000**	**1,078.0229**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2015	1.7233	5.5768	7.1723	0.0122	0.6470	0.3048	0.9519	0.1924	0.2856	0.4781	0.0000	1,039.4886	1,039.4886	0.1157	0.0000	1,041.9185
2016	5.0233	0.2307	0.2396	4.2000e-004	0.0150	0.0139	0.0289	3.9900e-003	0.0130	0.0170	0.0000	35.5485	35.5485	6.1700e-003	0.0000	35.6780
Total	**6.7466**	**5.8075**	**7.4118**	**0.0126**	**0.6620**	**0.3188**	**0.9808**	**0.1964**	**0.2986**	**0.4951**	**0.0000**	**1,075.0370**	**1,075.0370**	**0.1219**	**0.0000**	**1,077.5965**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.01**	**0.09**	**0.05**	**0.00**	**0.00**	**0.11**	**0.04**	**0.00**	**0.11**	**0.06**	**0.00**	**0.04**	**0.04**	**0.08**	**0.00**	**0.04**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	4.4059	0.0808	6.5882	4.1400e-003		0.3975	0.3975		0.3974	0.3974	41.7441	86.8564	128.6005	0.1313	2.8300e-003	132.2358
Energy	0.0239	0.2076	0.1098	1.3100e-003		0.0165	0.0165		0.0165	0.0165	0.0000	1,237.1124	1,237.1124	0.0505	0.0139	1,242.4684
Mobile	4.8010	4.6722	18.4431	0.0397	2.7040	0.0615	2.7656	0.7235	0.0566	0.7801	0.0000	3,167.5035	3,167.5035	0.1323	0.0000	3,170.2820
Waste						0.0000	0.0000		0.0000	0.0000	46.0505	0.0000	46.0505	2.7215	0.0000	103.2022
Water						0.0000	0.0000		0.0000	0.0000	8.5086	151.5037	160.0124	0.8809	0.0221	185.3545
Total	**9.2308**	**4.9607**	**25.1411**	**0.0452**	**2.7040**	**0.4755**	**3.1796**	**0.7235**	**0.4705**	**1.1940**	**96.3033**	**4,642.9760**	**4,739.2792**	**3.9165**	**0.0388**	**4,833.5429**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	3.1187	0.0482	4.1190	2.1000e-004		0.0222	0.0222		0.0222	0.0222	0.0000	6.6385	6.6385	6.8000e-003	0.0000	6.7813
Energy	0.0223	0.1934	0.1031	1.2200e-003		0.0154	0.0154		0.0154	0.0154	0.0000	1,153.3778	1,153.3778	0.0471	0.0129	1,158.3707
Mobile	4.4318	4.3200	17.2989	0.0363	2.4606	0.0564	2.5169	0.6584	0.0518	0.7102	0.0000	2,891.4646	2,891.4646	0.1217	0.0000	2,894.0192
Waste						0.0000	0.0000		0.0000	0.0000	29.9328	0.0000	29.9328	1.7690	0.0000	67.0814
Water						0.0000	0.0000		0.0000	0.0000	6.8069	131.5168	138.3237	0.7051	0.0177	158.6269
Total	**7.5727**	**4.5616**	**21.5209**	**0.0377**	**2.4606**	**0.0940**	**2.5545**	**0.6584**	**0.0894**	**0.7478**	**36.7398**	**4,182.9977**	**4,219.7375**	**2.6496**	**0.0306**	**4,284.8795**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**17.96**	**8.04**	**14.40**	**16.56**	**9.00**	**80.24**	**19.66**	**9.00**	**81.00**	**37.37**	**61.85**	**9.91**	**10.96**	**32.35**	**20.97**	**11.35**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2015	1/28/2015	5	20	
2	Site Preparation	Site Preparation	1/29/2015	2/4/2015	5	5	
3	Grading	Grading	2/5/2015	2/16/2015	5	8	
4	Building Construction	Building Construction	2/17/2015	1/4/2016	5	230	
5	Paving	Paving	1/5/2016	1/28/2016	5	18	
6	Architectural Coating	Architectural Coating	1/29/2016	2/23/2016	5	18	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 4

Acres of Paving: 0

Residential Indoor: 795,825; Residential Outdoor: 265,275; Non-Residential Indoor: 444,600; Non-Residential Outdoor: 148,200

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Excavators	3	8.00	162	0.38
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Excavators	1	8.00	162	0.38
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Paving	Pavers	1	8.00	125	0.42
Paving	Rollers	2	6.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	255	0.40
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	8.00	174	0.41
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Paving Equipment	2	6.00	130	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Building Construction	Welders	1	8.00	46	0.45
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	407.00	91.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	81.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0451	0.4836	0.3607	4.0000e-004		0.0245	0.0245		0.0229	0.0229	0.0000	37.4413	37.4413	0.0102	0.0000	37.6544
Total	**0.0451**	**0.4836**	**0.3607**	**4.0000e-004**	**1.0000e-005**	**0.0245**	**0.0245**	**0.0000**	**0.0229**	**0.0229**	**0.0000**	**37.4413**	**37.4413**	**0.0102**	**0.0000**	**37.6544**

3.2 Demolition - 2015

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.3700e-003	9.8000e-004	0.0102	2.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.5970	1.5970	9.0000e-005	0.0000	1.5989
Total	**3.3700e-003**	**9.8000e-004**	**0.0102**	**2.0000e-005**	**1.6500e-003**	**1.0000e-005**	**1.6600e-003**	**4.4000e-004**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**1.5970**	**1.5970**	**9.0000e-005**	**0.0000**	**1.5989**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0450	0.4831	0.3603	4.0000e-004		0.0245	0.0245		0.0228	0.0228	0.0000	37.3967	37.3967	0.0101	0.0000	37.6096
Total	**0.0450**	**0.4831**	**0.3603**	**4.0000e-004**	**1.0000e-005**	**0.0245**	**0.0245**	**0.0000**	**0.0228**	**0.0228**	**0.0000**	**37.3967**	**37.3967**	**0.0101**	**0.0000**	**37.6096**

3.2 Demolition - 2015

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.3700e-003	9.8000e-004	0.0102	2.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.5970	1.5970	9.0000e-005	0.0000	1.5989
Total	**3.3700e-003**	**9.8000e-004**	**0.0102**	**2.0000e-005**	**1.6500e-003**	**1.0000e-005**	**1.6600e-003**	**4.4000e-004**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**1.5970**	**1.5970**	**9.0000e-005**	**0.0000**	**1.5989**

3.3 Site Preparation - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0452	0.0000	0.0452	0.0248	0.0000	0.0248	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0132	0.1422	0.1066	1.0000e-004		7.7200e-003	7.7200e-003		7.1000e-003	7.1000e-003	0.0000	9.3253	9.3253	2.7800e-003	0.0000	9.3837
Total	**0.0132**	**0.1422**	**0.1066**	**1.0000e-004**	**0.0452**	**7.7200e-003**	**0.0529**	**0.0248**	**7.1000e-003**	**0.0319**	**0.0000**	**9.3253**	**9.3253**	**2.7800e-003**	**0.0000**	**9.3837**

3.3 Site Preparation - 2015

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0100e-003	2.9000e-004	3.0500e-003	1.0000e-005	4.9000e-004	0.0000	5.0000e-004	1.3000e-004	0.0000	1.4000e-004	0.0000	0.4791	0.4791	3.0000e-005	0.0000	0.4797
Total	**1.0100e-003**	**2.9000e-004**	**3.0500e-003**	**1.0000e-005**	**4.9000e-004**	**0.0000**	**5.0000e-004**	**1.3000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.4791**	**0.4791**	**3.0000e-005**	**0.0000**	**0.4797**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0452	0.0000	0.0452	0.0248	0.0000	0.0248	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0131	0.1421	0.1065	1.0000e-004		7.7100e-003	7.7100e-003		7.0900e-003	7.0900e-003	0.0000	9.3142	9.3142	2.7800e-003	0.0000	9.3726
Total	**0.0131**	**0.1421**	**0.1065**	**1.0000e-004**	**0.0452**	**7.7100e-003**	**0.0529**	**0.0248**	**7.0900e-003**	**0.0319**	**0.0000**	**9.3142**	**9.3142**	**2.7800e-003**	**0.0000**	**9.3726**

3.3 Site Preparation - 2015

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0100e-003	2.9000e-004	3.0500e-003	1.0000e-005	4.9000e-004	0.0000	5.0000e-004	1.3000e-004	0.0000	1.4000e-004	0.0000	0.4791	0.4791	3.0000e-005	0.0000	0.4797
Total	**1.0100e-003**	**2.9000e-004**	**3.0500e-003**	**1.0000e-005**	**4.9000e-004**	**0.0000**	**5.0000e-004**	**1.3000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.4791**	**0.4791**	**3.0000e-005**	**0.0000**	**0.4797**

3.4 Grading - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0262	0.0000	0.0262	0.0135	0.0000	0.0135	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0153	0.1617	0.1067	1.2000e-004		9.3100e-003	9.3100e-003		8.5700e-003	8.5700e-003	0.0000	11.3544	11.3544	3.3900e-003	0.0000	11.4256
Total	**0.0153**	**0.1617**	**0.1067**	**1.2000e-004**	**0.0262**	**9.3100e-003**	**0.0355**	**0.0135**	**8.5700e-003**	**0.0220**	**0.0000**	**11.3544**	**11.3544**	**3.3900e-003**	**0.0000**	**11.4256**

3.4 Grading - 2015

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3500e-003	3.9000e-004	4.0700e-003	1.0000e-005	6.6000e-004	1.0000e-005	6.6000e-004	1.7000e-004	1.0000e-005	1.8000e-004	0.0000	0.6388	0.6388	4.0000e-005	0.0000	0.6396
Total	**1.3500e-003**	**3.9000e-004**	**4.0700e-003**	**1.0000e-005**	**6.6000e-004**	**1.0000e-005**	**6.6000e-004**	**1.7000e-004**	**1.0000e-005**	**1.8000e-004**	**0.0000**	**0.6388**	**0.6388**	**4.0000e-005**	**0.0000**	**0.6396**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0262	0.0000	0.0262	0.0135	0.0000	0.0135	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0153	0.1615	0.1066	1.2000e-004		9.3000e-003	9.3000e-003		8.5600e-003	8.5600e-003	0.0000	11.3409	11.3409	3.3900e-003	0.0000	11.4120
Total	**0.0153**	**0.1615**	**0.1066**	**1.2000e-004**	**0.0262**	**9.3000e-003**	**0.0355**	**0.0135**	**8.5600e-003**	**0.0220**	**0.0000**	**11.3409**	**11.3409**	**3.3900e-003**	**0.0000**	**11.4120**

3.4 Grading - 2015

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3500e-003	3.9000e-004	4.0700e-003	1.0000e-005	6.6000e-004	1.0000e-005	6.6000e-004	1.7000e-004	1.0000e-005	1.8000e-004	0.0000	0.6388	0.6388	4.0000e-005	0.0000	0.6396
Total	**1.3500e-003**	**3.9000e-004**	**4.0700e-003**	**1.0000e-005**	**6.6000e-004**	**1.0000e-005**	**6.6000e-004**	**1.7000e-004**	**1.0000e-005**	**1.8000e-004**	**0.0000**	**0.6388**	**0.6388**	**4.0000e-005**	**0.0000**	**0.6396**

3.5 Building Construction - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.4171	3.4234	2.1369	3.0600e-003		0.2413	0.2413		0.2269	0.2269	0.0000	278.1535	278.1535	0.0698	0.0000	279.6191
Total	**0.4171**	**3.4234**	**2.1369**	**3.0600e-003**		**0.2413**	**0.2413**		**0.2269**	**0.2269**	**0.0000**	**278.1535**	**278.1535**	**0.0698**	**0.0000**	**279.6191**

3.5 Building Construction - 2015

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1863	1.0664	1.3006	2.2600e-003	0.0638	0.0177	0.0815	0.0182	0.0163	0.0345	0.0000	206.9035	206.9035	1.6500e-003	0.0000	206.9382
Worker	1.0412	0.3029	3.1467	6.2600e-003	0.5091	4.5600e-003	0.5136	0.1352	4.1800e-003	0.1394	0.0000	493.9957	493.9957	0.0279	0.0000	494.5815
Total	**1.2275**	**1.3693**	**4.4473**	**8.5200e-003**	**0.5729**	**0.0223**	**0.5951**	**0.1534**	**0.0205**	**0.1739**	**0.0000**	**700.8992**	**700.8992**	**0.0296**	**0.0000**	**701.5196**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.4166	3.4193	2.1343	3.0500e-003		0.2410	0.2410		0.2266	0.2266	0.0000	277.8227	277.8227	0.0697	0.0000	279.2865
Total	**0.4166**	**3.4193**	**2.1343**	**3.0500e-003**		**0.2410**	**0.2410**		**0.2266**	**0.2266**	**0.0000**	**277.8227**	**277.8227**	**0.0697**	**0.0000**	**279.2865**

3.5 Building Construction - 2015

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1863	1.0664	1.3006	2.2600e-003	0.0638	0.0177	0.0815	0.0182	0.0163	0.0345	0.0000	206.9035	206.9035	1.6500e-003	0.0000	206.9382
Worker	1.0412	0.3029	3.1467	6.2600e-003	0.5091	4.5600e-003	0.5136	0.1352	4.1800e-003	0.1394	0.0000	493.9957	493.9957	0.0279	0.0000	494.5815
Total	**1.2275**	**1.3693**	**4.4473**	**8.5200e-003**	**0.5729**	**0.0223**	**0.5951**	**0.1534**	**0.0205**	**0.1739**	**0.0000**	**700.8992**	**700.8992**	**0.0296**	**0.0000**	**701.5196**

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.4100e-003	0.0285	0.0185	3.0000e-005		1.9700e-003	1.9700e-003		1.8500e-003	1.8500e-003	0.0000	2.4215	2.4215	6.0000e-004	0.0000	2.4342
Total	**3.4100e-003**	**0.0285**	**0.0185**	**3.0000e-005**		**1.9700e-003**	**1.9700e-003**		**1.8500e-003**	**1.8500e-003**	**0.0000**	**2.4215**	**2.4215**	**6.0000e-004**	**0.0000**	**2.4342**

3.5 Building Construction - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.4200e-003	8.2600e-003	0.0106	2.0000e-005	5.6000e-004	1.3000e-004	6.9000e-004	1.6000e-004	1.2000e-004	2.8000e-004	0.0000	1.7950	1.7950	1.0000e-005	0.0000	1.7952
Worker	8.5100e-003	2.4000e-003	0.0249	5.0000e-005	4.4700e-003	4.0000e-005	4.5000e-003	1.1900e-003	3.0000e-005	1.2200e-003	0.0000	4.1835	4.1835	2.3000e-004	0.0000	4.1883
Total	**9.9300e-003**	**0.0107**	**0.0355**	**7.0000e-005**	**5.0300e-003**	**1.7000e-004**	**5.1900e-003**	**1.3500e-003**	**1.5000e-004**	**1.5000e-003**	**0.0000**	**5.9785**	**5.9785**	**2.4000e-004**	**0.0000**	**5.9835**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.4000e-003	0.0285	0.0185	3.0000e-005		1.9700e-003	1.9700e-003		1.8500e-003	1.8500e-003	0.0000	2.4187	2.4187	6.0000e-004	0.0000	2.4313
Total	**3.4000e-003**	**0.0285**	**0.0185**	**3.0000e-005**		**1.9700e-003**	**1.9700e-003**		**1.8500e-003**	**1.8500e-003**	**0.0000**	**2.4187**	**2.4187**	**6.0000e-004**	**0.0000**	**2.4313**

3.5 Building Construction - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.4200e-003	8.2600e-003	0.0106	2.0000e-005	5.6000e-004	1.3000e-004	6.9000e-004	1.6000e-004	1.2000e-004	2.8000e-004	0.0000	1.7950	1.7950	1.0000e-005	0.0000	1.7952
Worker	8.5100e-003	2.4000e-003	0.0249	5.0000e-005	4.4700e-003	4.0000e-005	4.5000e-003	1.1900e-003	3.0000e-005	1.2200e-003	0.0000	4.1835	4.1835	2.3000e-004	0.0000	4.1883
Total	**9.9300e-003**	**0.0107**	**0.0355**	**7.0000e-005**	**5.0300e-003**	**1.7000e-004**	**5.1900e-003**	**1.3500e-003**	**1.5000e-004**	**1.5000e-003**	**0.0000**	**5.9785**	**5.9785**	**2.4000e-004**	**0.0000**	**5.9835**

3.6 Paving - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0162	0.1651	0.1131	1.7000e-004		9.9600e-003	9.9600e-003		9.1800e-003	9.1800e-003	0.0000	15.5310	15.5310	4.5600e-003	0.0000	15.6268
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0162**	**0.1651**	**0.1131**	**1.7000e-004**		**9.9600e-003**	**9.9600e-003**		**9.1800e-003**	**9.1800e-003**	**0.0000**	**15.5310**	**15.5310**	**4.5600e-003**	**0.0000**	**15.6268**

3.6 Paving - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.7600e-003	1.0600e-003	0.0110	2.0000e-005	1.9700e-003	2.0000e-005	1.9900e-003	5.2000e-004	2.0000e-005	5.4000e-004	0.0000	1.8502	1.8502	1.0000e-004	0.0000	1.8523
Total	**3.7600e-003**	**1.0600e-003**	**0.0110**	**2.0000e-005**	**1.9700e-003**	**2.0000e-005**	**1.9900e-003**	**5.2000e-004**	**2.0000e-005**	**5.4000e-004**	**0.0000**	**1.8502**	**1.8502**	**1.0000e-004**	**0.0000**	**1.8523**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0161	0.1649	0.1129	1.7000e-004		9.9500e-003	9.9500e-003		9.1700e-003	9.1700e-003	0.0000	15.5125	15.5125	4.5600e-003	0.0000	15.6082
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0161**	**0.1649**	**0.1129**	**1.7000e-004**		**9.9500e-003**	**9.9500e-003**		**9.1700e-003**	**9.1700e-003**	**0.0000**	**15.5125**	**15.5125**	**4.5600e-003**	**0.0000**	**15.6082**

3.6 Paving - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.7600e-003	1.0600e-003	0.0110	2.0000e-005	1.9700e-003	2.0000e-005	1.9900e-003	5.2000e-004	2.0000e-005	5.4000e-004	0.0000	1.8502	1.8502	1.0000e-004	0.0000	1.8523
Total	**3.7600e-003**	**1.0600e-003**	**0.0110**	**2.0000e-005**	**1.9700e-003**	**2.0000e-005**	**1.9900e-003**	**5.2000e-004**	**2.0000e-005**	**5.4000e-004**	**0.0000**	**1.8502**	**1.8502**	**1.0000e-004**	**0.0000**	**1.8523**

3.7 Architectural Coating - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.3200e-003	0.0214	0.0170	3.0000e-005		1.7700e-003	1.7700e-003		1.7700e-003	1.7700e-003	0.0000	2.2979	2.2979	2.7000e-004	0.0000	2.3036
Archit. Coating	4.9715					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.9748**	**0.0214**	**0.0170**	**3.0000e-005**		**1.7700e-003**	**1.7700e-003**		**1.7700e-003**	**1.7700e-003**	**0.0000**	**2.2979**	**2.2979**	**2.7000e-004**	**0.0000**	**2.3036**

3.7 Architectural Coating - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0152	4.2900e-003	0.0447	1.0000e-004	8.0000e-003	7.0000e-005	8.0700e-003	2.1200e-003	6.0000e-005	2.1900e-003	0.0000	7.4934	7.4934	4.0000e-004	0.0000	7.5018
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0152**	**4.2900e-003**	**0.0447**	**1.0000e-004**	**8.0000e-003**	**7.0000e-005**	**8.0700e-003**	**2.1200e-003**	**6.0000e-005**	**2.1900e-003**	**0.0000**	**7.4934**	**7.4934**	**4.0000e-004**	**0.0000**	**7.5018**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.3100e-003	0.0213	0.0169	3.0000e-005		1.7700e-003	1.7700e-003		1.7700e-003	1.7700e-003	0.0000	2.2952	2.2952	2.7000e-004	0.0000	2.3009
Archit. Coating	4.9715					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.9748**	**0.0213**	**0.0169**	**3.0000e-005**		**1.7700e-003**	**1.7700e-003**		**1.7700e-003**	**1.7700e-003**	**0.0000**	**2.2952**	**2.2952**	**2.7000e-004**	**0.0000**	**2.3009**

3.7 Architectural Coating - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0152	4.2900e-003	0.0447	1.0000e-004	8.0000e-003	7.0000e-005	8.0700e-003	2.1200e-003	6.0000e-005	2.1900e-003	0.0000	7.4934	7.4934	4.0000e-004	0.0000	7.5018
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0152**	**4.2900e-003**	**0.0447**	**1.0000e-004**	**8.0000e-003**	**7.0000e-005**	**8.0700e-003**	**2.1200e-003**	**6.0000e-005**	**2.1900e-003**	**0.0000**	**7.4934**	**7.4934**	**4.0000e-004**	**0.0000**	**7.5018**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Diversity

Improve Destination Accessibility

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	4.4318	4.3200	17.2989	0.0363	2.4606	0.0564	2.5169	0.6584	0.0518	0.7102	0.0000	2,891.4646	2,891.4646	0.1217	0.0000	2,894.0192
Unmitigated	4.8010	4.6722	18.4431	0.0397	2.7040	0.0615	2.7656	0.7235	0.0566	0.7801	0.0000	3,167.5035	3,167.5035	0.1323	0.0000	3,170.2820

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	2,589.87	2,589.87	2385.51	6,820,713	6,206,592
Enclosed Parking with Elevator	0.00	0.00	0.00		
Fast Food Restaurant w/o Drive Thru	175.00	175.00	175.00	316,933	288,397
Total	2,764.87	2,764.87	2,560.51	7,137,645	6,494,989

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	14.70	2.95	4.35	40.20	19.20	40.60	86	11	3
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Fast Food Restaurant w/o Drive	16.60	8.40	6.90	1.50	79.50	19.00	51	37	12

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.514315	0.060290	0.180146	0.139458	0.042007	0.006636	0.015782	0.029894	0.001929	0.002512	0.004343	0.000595	0.002093

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	932.8428	932.8428	0.0429	8.8700e-003	936.4935
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,000.2334	1,000.2334	0.0460	9.5100e-003	1,004.1479
NaturalGas Mitigated	0.0223	0.1934	0.1031	1.2200e-003		0.0154	0.0154		0.0154	0.0154	0.0000	220.5350	220.5350	4.2300e-003	4.0400e-003	221.8771
NaturalGas Unmitigated	0.0239	0.2076	0.1098	1.3100e-003		0.0165	0.0165		0.0165	0.0165	0.0000	236.8789	236.8789	4.5400e-003	4.3400e-003	238.3205

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	3.38522e+006	0.0183	0.1560	0.0664	1.0000e-003		0.0126	0.0126		0.0126	0.0126	0.0000	180.6484	180.6484	3.4600e-003	3.3100e-003	181.7478
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	1.05372e+006	5.6800e-003	0.0517	0.0434	3.1000e-004		3.9300e-003	3.9300e-003		3.9300e-003	3.9300e-003	0.0000	56.2305	56.2305	1.0800e-003	1.0300e-003	56.5727
Total		**0.0239**	**0.2076**	**0.1098**	**1.3100e-003**		**0.0165**	**0.0165**		**0.0165**	**0.0165**	**0.0000**	**236.8789**	**236.8789**	**4.5400e-003**	**4.3400e-003**	**238.3205**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	3.11202e+006	0.0168	0.1434	0.0610	9.2000e-004		0.0116	0.0116		0.0116	0.0116	0.0000	166.0691	166.0691	3.1800e-003	3.0400e-003	167.0798
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	1.02065e+006	5.5000e-003	0.0500	0.0420	3.0000e-004		3.8000e-003	3.8000e-003		3.8000e-003	3.8000e-003	0.0000	54.4659	54.4659	1.0400e-003	1.0000e-003	54.7974
Total		**0.0223**	**0.1934**	**0.1031**	**1.2200e-003**		**0.0154**	**0.0154**		**0.0154**	**0.0154**	**0.0000**	**220.5350**	**220.5350**	**4.2200e-003**	**4.0400e-003**	**221.8771**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.36718e+006	391.2428	0.0180	3.7200e-003	392.7740
Enclosed Parking with Elevator	1.97078e+006	563.9708	0.0259	5.3600e-003	566.1780
Fast Food Restaurant w/o Drive Thru	157320	45.0198	2.0700e-003	4.3000e-004	45.1960
Total		**1,000.2335**	**0.0460**	**9.5100e-003**	**1,004.1479**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.3309e+006	380.8595	0.0175	3.6200e-003	382.3500
Enclosed Parking with Elevator	1.77925e+006	509.1636	0.0234	4.8400e-003	511.1562
Fast Food Restaurant w/o Drive Thru	149632	42.8197	1.9700e-003	4.1000e-004	42.9873
Total		**932.8428**	**0.0429**	**8.8700e-003**	**936.4935**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	3.1187	0.0482	4.1190	2.1000e-004		0.0222	0.0222		0.0222	0.0222	0.0000	6.6385	6.6385	6.8000e-003	0.0000	6.7813
Unmitigated	4.4059	0.0808	6.5882	4.1400e-003		0.3975	0.3975		0.3974	0.3974	41.7441	86.8564	128.6005	0.1313	2.8300e-003	132.2358

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4972					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.4912					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	1.2873	0.0327	2.4692	3.9300e-003		0.3753	0.3753		0.3752	0.3752	41.7441	80.2178	121.9619	0.1245	2.8300e-003	125.4545
Landscaping	0.1304	0.0482	4.1190	2.1000e-004		0.0222	0.0222		0.0222	0.0222	0.0000	6.6385	6.6385	6.8000e-003	0.0000	6.7813
Total	**4.4059**	**0.0808**	**6.5882**	**4.1400e-003**		**0.3975**	**0.3975**		**0.3974**	**0.3974**	**41.7441**	**86.8564**	**128.6004**	**0.1313**	**2.8300e-003**	**132.2358**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4972					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.4912					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1304	0.0482	4.1190	2.1000e-004		0.0222	0.0222		0.0222	0.0222	0.0000	6.6385	6.6385	6.8000e-003	0.0000	6.7813
Total	**3.1187**	**0.0482**	**4.1190**	**2.1000e-004**		**0.0222**	**0.0222**		**0.0222**	**0.0222**	**0.0000**	**6.6385**	**6.6385**	**6.8000e-003**	**0.0000**	**6.7813**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	138.3237	0.7051	0.0177	158.6269
Unmitigated	160.0124	0.8809	0.0221	185.3545

7.2 Water by Land Use

Unmitigated

	Indoor/ Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	25.6055 / 16.1426	154.8567	0.8411	0.0211	179.0597
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	1.21413 / 0.077498	5.1557	0.0398	9.8000e-004	6.2947
Total		**160.0124**	**0.8809**	**0.0221**	**185.3545**

7.2 Water by Land Use

Mitigated

	Indoor/ Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	20.4844 / 16.1426	134.1499	0.6732	0.0170	153.5421
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	0.971308 / 0.077498	4.1738	0.0318	7.8000e-004	5.0848
Total		**138.3237**	**0.7051**	**0.0177**	**158.6269**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	29.9328	1.7690	0.0000	67.0814
Unmitigated	46.0505	2.7215	0.0000	103.2022

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	180.78	36.6967	2.1687	0.0000	82.2397
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	46.08	9.3538	0.5528	0.0000	20.9625
Total		**46.0505**	**2.7215**	**0.0000**	**103.2022**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	117.507	23.8529	1.4097	0.0000	53.4558
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	29.952	6.0800	0.3593	0.0000	13.6256
Total		**29.9329**	**1.7690**	**0.0000**	**67.0814**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Appendix B

Symphony Apartment HR-484

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments High Rise	484.00	Dwelling Unit	7.81	484,000.00	1384
Enclosed Parking with Elevator	850.00	Space	0.00	340,000.00	0
Fast Food Restaurant w/o Drive Thru	6.00	1000sqft	0.00	6,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	8			**Operational Year**	2016
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - GHG Model for original entitement with 484 high rise condos and 6000sf retail.

Land Use - Parking and fast food restaurant acreage change to 0 as they are part of the overall structure footprint.

Demolition -

Vehicle Trips - Fast Food Restaurant VT changed to 175 per day using most recent TIA.

Table Name	Column Name	Default Value	New Value
tblLandUse	LotAcreage	7.65	0.00
tblLandUse	LotAcreage	0.14	0.00
tblProjectCharacteristics	OperationalYear	2014	2016
tblVehicleTrips	ST_TR	696.00	75.00
tblVehicleTrips	SU_TR	500.00	175.00
tblVehicleTrips	WD_TR	716.00	175.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2015	1.8803	5.8668	7.8165	0.0133	0.8108	0.3114	1.1222	0.2577	0.2913	0.5490	0.0000	1,130.7335	1,130.7335	0.1222	0.0000	1,133.2993
2016	6.0971	0.6459	0.8197	1.5200e-003	0.0703	0.0353	0.1056	0.0188	0.0330	0.0518	0.0000	126.7667	126.7667	0.0157	0.0000	127.0968
Total	**7.9774**	**6.5127**	**8.6362**	**0.0148**	**0.8811**	**0.3466**	**1.2277**	**0.2765**	**0.3242**	**0.6008**	**0.0000**	**1,257.5002**	**1,257.5002**	**0.1379**	**0.0000**	**1,260.3961**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2015	1.8797	5.8616	7.8131	0.0133	0.8200	0.3110	1.1310	0.2600	0.2910	0.5510	0.0000	1,130.3268	1,130.3268	0.1221	0.0000	1,132.8903
2016	6.0970	0.6453	0.8193	1.5200e-003	0.0703	0.0352	0.1055	0.0188	0.0329	0.0517	0.0000	126.7113	126.7113	0.0157	0.0000	127.0411
Total	**7.9767**	**6.5069**	**8.6324**	**0.0148**	**0.8903**	**0.3463**	**1.2366**	**0.2788**	**0.3239**	**0.6027**	**0.0000**	**1,257.0381**	**1,257.0381**	**0.1378**	**0.0000**	**1,259.9314**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.01**	**0.09**	**0.04**	**0.00**	**-1.05**	**0.11**	**-0.72**	**-0.82**	**0.11**	**-0.32**	**0.00**	**0.04**	**0.04**	**0.09**	**0.00**	**0.04**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	5.3352	0.0995	8.1131	5.1000e-003		0.4895	0.4895		0.4894	0.4894	51.4100	106.9669	158.3769	0.1617	3.4900e-003	162.8540
Energy	0.0310	0.2696	0.1468	1.6900e-003		0.0214	0.0214		0.0214	0.0214	0.0000	1,511.9694	1,511.9694	0.0613	0.0171	1,518.5530
Mobile	8.3360	8.0925	31.2510	0.0701	4.7951	0.1081	4.9032	1.2830	0.0994	1.3824	0.0000	5,591.2292	5,591.2292	0.2311	0.0000	5,596.0825
Waste						0.0000	0.0000		0.0000	0.0000	59.2226	0.0000	59.2226	3.5000	0.0000	132.7217
Water						0.0000	0.0000		0.0000	0.0000	10.5822	187.8654	198.4476	1.0955	0.0275	229.9635
Total	**13.7022**	**8.4616**	**39.5109**	**0.0769**	**4.7951**	**0.6190**	**5.4141**	**1.2830**	**0.6102**	**1.8932**	**121.2149**	**7,398.0308**	**7,519.2457**	**5.0496**	**0.0480**	**7,640.1747**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	5.3352	0.0995	8.1131	5.1000e-003		0.4895	0.4895		0.4894	0.4894	51.4100	106.9669	158.3769	0.1617	3.4900e-003	162.8540
Energy	0.0310	0.2696	0.1468	1.6900e-003		0.0214	0.0214		0.0214	0.0214	0.0000	1,511.9694	1,511.9694	0.0613	0.0171	1,518.5530
Mobile	8.3360	8.0925	31.2510	0.0701	4.7951	0.1081	4.9032	1.2830	0.0994	1.3824	0.0000	5,591.2292	5,591.2292	0.2311	0.0000	5,596.0825
Waste						0.0000	0.0000		0.0000	0.0000	59.2226	0.0000	59.2226	3.5000	0.0000	132.7217
Water						0.0000	0.0000		0.0000	0.0000	10.5822	187.8654	198.4476	1.0953	0.0274	229.9466
Total	**13.7022**	**8.4616**	**39.5109**	**0.0769**	**4.7951**	**0.6190**	**5.4141**	**1.2830**	**0.6102**	**1.8932**	**121.2149**	**7,398.0308**	**7,519.2457**	**5.0494**	**0.0480**	**7,640.1578**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.08**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2015	1/28/2015	5	20	
2	Site Preparation	Site Preparation	1/29/2015	2/11/2015	5	10	
3	Grading	Grading	2/12/2015	3/11/2015	5	20	
4	Building Construction	Building Construction	3/12/2015	1/27/2016	5	230	
5	Paving	Paving	1/28/2016	2/24/2016	5	20	
6	Architectural Coating	Architectural Coating	2/25/2016	3/23/2016	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 0

Residential Indoor: 980,100; Residential Outdoor: 326,700; Non-Residential Indoor: 519,000; Non-Residential Outdoor: 173,000

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Excavators	3	8.00	162	0.38
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Excavators	1	8.00	162	0.38
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Paving	Pavers	2	8.00	125	0.42
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	255	0.40
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	8.00	174	0.41
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Paving Equipment	2	8.00	130	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	75.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	494.00	108.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	99.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					8.1200e-003	0.0000	8.1200e-003	1.2300e-003	0.0000	1.2300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0451	0.4836	0.3607	4.0000e-004		0.0245	0.0245		0.0229	0.0229	0.0000	37.4413	37.4413	0.0102	0.0000	37.6544
Total	**0.0451**	**0.4836**	**0.3607**	**4.0000e-004**	**8.1200e-003**	**0.0245**	**0.0326**	**1.2300e-003**	**0.0229**	**0.0241**	**0.0000**	**37.4413**	**37.4413**	**0.0102**	**0.0000**	**37.6544**

3.2 Demolition - 2015

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.6700e-003	0.0124	8.8000e-003	3.0000e-005	6.4000e-004	2.0000e-004	8.4000e-004	1.8000e-004	1.8000e-004	3.6000e-004	0.0000	2.5572	2.5572	2.0000e-005	0.0000	2.5576
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.3700e-003	9.8000e-004	0.0102	2.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.5970	1.5970	9.0000e-005	0.0000	1.5989
Total	**5.0400e-003**	**0.0134**	**0.0190**	**5.0000e-005**	**2.2900e-003**	**2.1000e-004**	**2.5000e-003**	**6.2000e-004**	**1.9000e-004**	**8.1000e-004**	**0.0000**	**4.1542**	**4.1542**	**1.1000e-004**	**0.0000**	**4.1566**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					8.1200e-003	0.0000	8.1200e-003	1.2300e-003	0.0000	1.2300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0450	0.4831	0.3603	4.0000e-004		0.0245	0.0245		0.0228	0.0228	0.0000	37.3967	37.3967	0.0101	0.0000	37.6096
Total	**0.0450**	**0.4831**	**0.3603**	**4.0000e-004**	**8.1200e-003**	**0.0245**	**0.0326**	**1.2300e-003**	**0.0228**	**0.0241**	**0.0000**	**37.3967**	**37.3967**	**0.0101**	**0.0000**	**37.6096**

3.2 Demolition - 2015

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.6700e-003	0.0124	8.8000e-003	3.0000e-005	9.8600e-003	2.0000e-004	0.0101	2.4400e-003	1.8000e-004	2.6200e-003	0.0000	2.5572	2.5572	2.0000e-005	0.0000	2.5576
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.3700e-003	9.8000e-004	0.0102	2.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.5970	1.5970	9.0000e-005	0.0000	1.5989
Total	**5.0400e-003**	**0.0134**	**0.0190**	**5.0000e-005**	**0.0115**	**2.1000e-004**	**0.0117**	**2.8800e-003**	**1.9000e-004**	**3.0700e-003**	**0.0000**	**4.1542**	**4.1542**	**1.1000e-004**	**0.0000**	**4.1566**

3.3 Site Preparation - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0263	0.2845	0.2132	2.0000e-004		0.0154	0.0154		0.0142	0.0142	0.0000	18.6506	18.6506	5.5700e-003	0.0000	18.7675
Total	**0.0263**	**0.2845**	**0.2132**	**2.0000e-004**	**0.0903**	**0.0154**	**0.1058**	**0.0497**	**0.0142**	**0.0639**	**0.0000**	**18.6506**	**18.6506**	**5.5700e-003**	**0.0000**	**18.7675**

3.3 Site Preparation - 2015

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0200e-003	5.9000e-004	6.1000e-003	1.0000e-005	9.9000e-004	1.0000e-005	1.0000e-003	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	0.9582	0.9582	5.0000e-005	0.0000	0.9594
Total	**2.0200e-003**	**5.9000e-004**	**6.1000e-003**	**1.0000e-005**	**9.9000e-004**	**1.0000e-005**	**1.0000e-003**	**2.6000e-004**	**1.0000e-005**	**2.7000e-004**	**0.0000**	**0.9582**	**0.9582**	**5.0000e-005**	**0.0000**	**0.9594**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0263	0.2841	0.2129	2.0000e-004		0.0154	0.0154		0.0142	0.0142	0.0000	18.6284	18.6284	5.5600e-003	0.0000	18.7452
Total	**0.0263**	**0.2841**	**0.2129**	**2.0000e-004**	**0.0903**	**0.0154**	**0.1058**	**0.0497**	**0.0142**	**0.0638**	**0.0000**	**18.6284**	**18.6284**	**5.5600e-003**	**0.0000**	**18.7452**

3.3 Site Preparation - 2015

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0200e-003	5.9000e-004	6.1000e-003	1.0000e-005	9.9000e-004	1.0000e-005	1.0000e-003	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	0.9582	0.9582	5.0000e-005	0.0000	0.9594
Total	**2.0200e-003**	**5.9000e-004**	**6.1000e-003**	**1.0000e-005**	**9.9000e-004**	**1.0000e-005**	**1.0000e-003**	**2.6000e-004**	**1.0000e-005**	**2.7000e-004**	**0.0000**	**0.9582**	**0.9582**	**5.0000e-005**	**0.0000**	**0.9594**

3.4 Grading - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0655	0.0000	0.0655	0.0337	0.0000	0.0337	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0383	0.4042	0.2667	3.0000e-004		0.0233	0.0233		0.0214	0.0214	0.0000	28.3860	28.3860	8.4700e-003	0.0000	28.5639
Total	**0.0383**	**0.4042**	**0.2667**	**3.0000e-004**	**0.0655**	**0.0233**	**0.0888**	**0.0337**	**0.0214**	**0.0551**	**0.0000**	**28.3860**	**28.3860**	**8.4700e-003**	**0.0000**	**28.5639**

3.4 Grading - 2015

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.3700e-003	9.8000e-004	0.0102	2.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.5970	1.5970	9.0000e-005	0.0000	1.5989
Total	**3.3700e-003**	**9.8000e-004**	**0.0102**	**2.0000e-005**	**1.6500e-003**	**1.0000e-005**	**1.6600e-003**	**4.4000e-004**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**1.5970**	**1.5970**	**9.0000e-005**	**0.0000**	**1.5989**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0655	0.0000	0.0655	0.0337	0.0000	0.0337	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0383	0.4037	0.2664	3.0000e-004		0.0233	0.0233		0.0214	0.0214	0.0000	28.3522	28.3522	8.4600e-003	0.0000	28.5299
Total	**0.0383**	**0.4037**	**0.2664**	**3.0000e-004**	**0.0655**	**0.0233**	**0.0888**	**0.0337**	**0.0214**	**0.0551**	**0.0000**	**28.3522**	**28.3522**	**8.4600e-003**	**0.0000**	**28.5299**

3.4 Grading - 2015

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.3700e-003	9.8000e-004	0.0102	2.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.5970	1.5970	9.0000e-005	0.0000	1.5989
Total	**3.3700e-003**	**9.8000e-004**	**0.0102**	**2.0000e-005**	**1.6500e-003**	**1.0000e-005**	**1.6600e-003**	**4.4000e-004**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**1.5970**	**1.5970**	**9.0000e-005**	**0.0000**	**1.5989**

3.5 Building Construction - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3860	3.1682	1.9776	2.8300e-003		0.2233	0.2233		0.2100	0.2100	0.0000	257.4140	257.4140	0.0646	0.0000	258.7703
Total	**0.3860**	**3.1682**	**1.9776**	**2.8300e-003**		**0.2233**	**0.2233**		**0.2100**	**0.2100**	**0.0000**	**257.4140**	**257.4140**	**0.0646**	**0.0000**	**258.7703**

3.5 Building Construction - 2015

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.2046	1.1713	1.4285	2.4800e-003	0.0701	0.0195	0.0895	0.0200	0.0179	0.0379	0.0000	227.2468	227.2468	1.8100e-003	0.0000	227.2849
Worker	1.1695	0.3402	3.5346	7.0300e-003	0.5718	5.1300e-003	0.5769	0.1519	4.7000e-003	0.1566	0.0000	554.8854	554.8854	0.0313	0.0000	555.5434
Total	**1.3741**	**1.5114**	**4.9631**	**9.5100e-003**	**0.6419**	**0.0246**	**0.6665**	**0.1719**	**0.0226**	**0.1944**	**0.0000**	**782.1322**	**782.1322**	**0.0331**	**0.0000**	**782.8283**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3856	3.1644	1.9752	2.8300e-003		0.2231	0.2231		0.2097	0.2097	0.0000	257.1078	257.1078	0.0645	0.0000	258.4625
Total	**0.3856**	**3.1644**	**1.9752**	**2.8300e-003**		**0.2231**	**0.2231**		**0.2097**	**0.2097**	**0.0000**	**257.1078**	**257.1078**	**0.0645**	**0.0000**	**258.4625**

3.5 Building Construction - 2015

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.2046	1.1713	1.4285	2.4800e-003	0.0701	0.0195	0.0895	0.0200	0.0179	0.0379	0.0000	227.2468	227.2468	1.8100e-003	0.0000	227.2849
Worker	1.1695	0.3402	3.5346	7.0300e-003	0.5718	5.1300e-003	0.5769	0.1519	4.7000e-003	0.1566	0.0000	554.8854	554.8854	0.0313	0.0000	555.5434
Total	**1.3741**	**1.5114**	**4.9631**	**9.5100e-003**	**0.6419**	**0.0246**	**0.6665**	**0.1719**	**0.0226**	**0.1944**	**0.0000**	**782.1322**	**782.1322**	**0.0331**	**0.0000**	**782.8283**

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0324	0.2708	0.1758	2.5000e-004		0.0187	0.0187		0.0176	0.0176	0.0000	23.0046	23.0046	5.7100e-003	0.0000	23.1244
Total	**0.0324**	**0.2708**	**0.1758**	**2.5000e-004**		**0.0187**	**0.0187**		**0.0176**	**0.0176**	**0.0000**	**23.0046**	**23.0046**	**5.7100e-003**	**0.0000**	**23.1244**

3.5 Building Construction - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0161	0.0932	0.1196	2.2000e-004	6.3100e-003	1.4500e-003	7.7700e-003	1.8000e-003	1.3400e-003	3.1400e-003	0.0000	20.2378	20.2378	1.5000e-004	0.0000	20.2409
Worker	0.0981	0.0276	0.2874	6.3000e-004	0.0515	4.4000e-004	0.0519	0.0137	4.0000e-004	0.0141	0.0000	48.2393	48.2393	2.6000e-003	0.0000	48.2938
Total	**0.1142**	**0.1208**	**0.4070**	**8.5000e-004**	**0.0578**	**1.8900e-003**	**0.0597**	**0.0155**	**1.7400e-003**	**0.0172**	**0.0000**	**68.4770**	**68.4770**	**2.7500e-003**	**0.0000**	**68.5346**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0323	0.2705	0.1756	2.5000e-004		0.0187	0.0187		0.0175	0.0175	0.0000	22.9772	22.9772	5.7000e-003	0.0000	23.0969
Total	**0.0323**	**0.2705**	**0.1756**	**2.5000e-004**		**0.0187**	**0.0187**		**0.0175**	**0.0175**	**0.0000**	**22.9772**	**22.9772**	**5.7000e-003**	**0.0000**	**23.0969**

3.5 Building Construction - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0161	0.0932	0.1196	2.2000e-004	6.3100e-003	1.4500e-003	7.7700e-003	1.8000e-003	1.3400e-003	3.1400e-003	0.0000	20.2378	20.2378	1.5000e-004	0.0000	20.2409
Worker	0.0981	0.0276	0.2874	6.3000e-004	0.0515	4.4000e-004	0.0519	0.0137	4.0000e-004	0.0141	0.0000	48.2393	48.2393	2.6000e-003	0.0000	48.2938
Total	**0.1142**	**0.1208**	**0.4070**	**8.5000e-004**	**0.0578**	**1.8900e-003**	**0.0597**	**0.0155**	**1.7400e-003**	**0.0172**	**0.0000**	**68.4770**	**68.4770**	**2.7500e-003**	**0.0000**	**68.5346**

3.6 Paving - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0209	0.2239	0.1482	2.2000e-004		0.0126	0.0126		0.0116	0.0116	0.0000	21.0138	21.0138	6.3400e-003	0.0000	21.1469
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0209**	**0.2239**	**0.1482**	**2.2000e-004**		**0.0126**	**0.0126**		**0.0116**	**0.0116**	**0.0000**	**21.0138**	**21.0138**	**6.3400e-003**	**0.0000**	**21.1469**

3.6 Paving - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.1400e-003	8.8000e-004	9.1900e-003	2.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.5419	1.5419	8.0000e-005	0.0000	1.5436
Total	**3.1400e-003**	**8.8000e-004**	**9.1900e-003**	**2.0000e-005**	**1.6500e-003**	**1.0000e-005**	**1.6600e-003**	**4.4000e-004**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**1.5419**	**1.5419**	**8.0000e-005**	**0.0000**	**1.5436**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0209	0.2236	0.1480	2.2000e-004		0.0126	0.0126		0.0116	0.0116	0.0000	20.9888	20.9888	6.3300e-003	0.0000	21.1218
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0209**	**0.2236**	**0.1480**	**2.2000e-004**		**0.0126**	**0.0126**		**0.0116**	**0.0116**	**0.0000**	**20.9888**	**20.9888**	**6.3300e-003**	**0.0000**	**21.1218**

3.6 Paving - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.1400e-003	8.8000e-004	9.1900e-003	2.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.5419	1.5419	8.0000e-005	0.0000	1.5436
Total	**3.1400e-003**	**8.8000e-004**	**9.1900e-003**	**2.0000e-005**	**1.6500e-003**	**1.0000e-005**	**1.6600e-003**	**4.4000e-004**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**1.5419**	**1.5419**	**8.0000e-005**	**0.0000**	**1.5436**

3.7 Architectural Coating - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	5.9021					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.6800e-003	0.0237	0.0188	3.0000e-005		1.9700e-003	1.9700e-003		1.9700e-003	1.9700e-003	0.0000	2.5533	2.5533	3.0000e-004	0.0000	2.5596
Total	**5.9058**	**0.0237**	**0.0188**	**3.0000e-005**		**1.9700e-003**	**1.9700e-003**		**1.9700e-003**	**1.9700e-003**	**0.0000**	**2.5533**	**2.5533**	**3.0000e-004**	**0.0000**	**2.5596**

3.7 Architectural Coating - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0207	5.8300e-003	0.0606	1.3000e-004	0.0109	9.0000e-005	0.0110	2.8800e-003	9.0000e-005	2.9700e-003	0.0000	10.1762	10.1762	5.5000e-004	0.0000	10.1877
Total	**0.0207**	**5.8300e-003**	**0.0606**	**1.3000e-004**	**0.0109**	**9.0000e-005**	**0.0110**	**2.8800e-003**	**9.0000e-005**	**2.9700e-003**	**0.0000**	**10.1762**	**10.1762**	**5.5000e-004**	**0.0000**	**10.1877**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	5.9021					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.6800e-003	0.0237	0.0188	3.0000e-005		1.9600e-003	1.9600e-003		1.9600e-003	1.9600e-003	0.0000	2.5502	2.5502	3.0000e-004	0.0000	2.5565
Total	**5.9058**	**0.0237**	**0.0188**	**3.0000e-005**		**1.9600e-003**	**1.9600e-003**		**1.9600e-003**	**1.9600e-003**	**0.0000**	**2.5502**	**2.5502**	**3.0000e-004**	**0.0000**	**2.5565**

3.7 Architectural Coating - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0207	5.8300e-003	0.0606	1.3000e-004	0.0109	9.0000e-005	0.0110	2.8800e-003	9.0000e-005	2.9700e-003	0.0000	10.1762	10.1762	5.5000e-004	0.0000	10.1877
Total	**0.0207**	**5.8300e-003**	**0.0606**	**1.3000e-004**	**0.0109**	**9.0000e-005**	**0.0110**	**2.8800e-003**	**9.0000e-005**	**2.9700e-003**	**0.0000**	**10.1762**	**10.1762**	**5.5000e-004**	**0.0000**	**10.1877**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Unmitigated	8.3360	8.0925	31.2510	0.0701	4.7951	0.1081	4.9032	1.2830	0.0994	1.3824	0.0000	5,591.2292	5,591.2292	0.2311	0.0000	5,596.0825
Mitigated	8.3360	8.0925	31.2510	0.0701	4.7951	0.1081	4.9032	1.2830	0.0994	1.3824	0.0000	5,591.2292	5,591.2292	0.2311	0.0000	5,596.0825

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments High Rise	3,189.56	3,465.44	2937.88	10,911,025	10,911,025
Enclosed Parking with Elevator	0.00	0.00	0.00		
Fast Food Restaurant w/o Drive Thru	1,050.00	450.00	1050.00	1,746,364	1,746,364
Total	4,239.56	3,915.44	3,987.88	12,657,388	12,657,388

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments High Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Enc osed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	C.00	0	0	0
Fast Food Restaurant w/o Drive	16.60	8.40	6.90	1.50	79.50	19.00	51	37	12

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.514315	0.060290	0.180146	0.139458	0.042007	0.006636	0.015782	0.029894	0.001929	0.002512	0.004343	0.000595	0.002093

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
NaturalGas Mitigated	0.0310	0.2696	0.1468	1.6900e-003		0.0214	0.0214		0.0214	0.0214	0.0000	306.8237	306.8237	5.8800e-003	5.6300e-003	308.6910
NaturalGas Unmitigated	0.0310	0.2696	0.1468	1.6900e-003		0.0214	0.0214		0.0214	0.0214	0.0000	306.8237	306.8237	5.8800e-003	5.6300e-003	308.6910
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,205.1457	1,205.1457	0.0554	0.0115	1,209.8620
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,205.1457	1,205.1457	0.0554	0.0115	1,209.8620

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments High Rise	4.16908e+006	0.0225	0.1921	0.0818	1.2300e-003		0.0155	0.0155		0.0155	0.0155	0.0000	222.4779	222.4779	4.2600e-003	4.0800e-003	223.8319
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	1.58058e+006	8.5200e-003	0.0775	0.0651	4.6000e-004		5.8900e-003	5.8900e-003		5.8900e-003	5.8900e-003	0.0000	84.3458	84.3458	1.6200e-003	1.5500e-003	84.8591
Total		**0.0310**	**0.2696**	**0.1468**	**1.6900e-003**		**0.0214**	**0.0214**		**0.0214**	**0.0214**	**0.0000**	**306.8237**	**306.8237**	**5.8800e-003**	**5.6300e-003**	**308.6910**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments High Rise	4.16908e+006	0.0225	0.1921	0.0818	1.2300e-003		0.0155	0.0155		0.0155	0.0155	0.0000	222.4779	222.4779	4.2600e-003	4.0800e-003	223.8319
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	1.58058e+006	8.5200e-003	0.0775	0.0651	4.6000e-004		5.8900e-003	5.8900e-003		5.8900e-003	5.8900e-003	0.0000	84.3458	84.3458	1.6200e-003	1.5500e-003	84.8591
Total		**0.0310**	**0.2696**	**0.1468**	**1.6900e-003**		**0.0214**	**0.0214**		**0.0214**	**0.0214**	**0.0000**	**306.8237**	**306.8237**	**5.8800e-003**	**5.6300e-003**	**308.6910**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments High Rise	1.68376e+006	481.8360	0.0222	4.5800e-003	483.7216
Enclosed Parking with Elevator	2.2916e+006	655.7801	0.0301	6.2400e-003	658.3465
Fast Food Restaurant w/o Drive Thru	235980	67.5297	3.1000e-003	6.4000e-004	67.7939
Total		**1,205.1457**	**0.0554**	**0.0115**	**1,209.8620**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments High Rise	1.68376e+006	481.8360	0.0222	4.5800e-003	483.7216
Enclosed Parking with Elevator	2.2916e+006	655.7801	0.0301	6.2400e-003	658.3465
Fast Food Restaurant w/o Drive Thru	235980	67.5297	3.1000e-003	6.4000e-004	67.7939
Total		**1,205.1457**	**0.0554**	**0.0115**	**1,209.8620**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Unmitigated	5.3352	0.0995	8.1131	5.1000e-003		0.4895	0.4895		0.4894	0.4894	51.4100	106.9669	158.3769	0.1617	3.4900e-003	162.8540
Mitigated	5.3352	0.0995	8.1131	5.1000e-003		0.4895	0.4895		0.4894	0.4894	51.4100	106.9669	158.3769	0.1617	3.4900e-003	162.8540

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.5902					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.9992					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	1.5853	0.0402	3.0410	4.8400e-003		0.4622	0.4622		0.4621	0.4621	51.4100	98.7924	150.2025	0.1533	3.4900e-003	154.5038
Landscaping	0.1605	0.0593	5.0721	2.6000e-004		0.0273	0.0273		0.0273	0.0273	0.0000	8.1745	8.1745	8.3700e-003	0.0000	8.3502
Total	**5.3352**	**0.0995**	**8.1131**	**5.1000e-003**		**0.4895**	**0.4895**		**0.4894**	**0.4894**	**51.4100**	**106.9669**	**158.3769**	**0.1617**	**3.4900e-003**	**162.8540**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.5902					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.9992					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	1.5853	0.0402	3.0410	4.8400e-003		0.4622	0.4622		0.4621	0.4621	51.4100	98.7924	150.2025	0.1533	3.4900e-003	154.5038
Landscaping	0.1605	0.0593	5.0721	2.6000e-004		0.0273	0.0273		0.0273	0.0273	0.0000	8.1745	8.1745	8.3700e-003	0.0000	8.3502
Total	**5.3352**	**0.0995**	**8.1131**	**5.1000e-003**		**0.4895**	**0.4895**		**0.4894**	**0.4894**	**51.4100**	**106.9669**	**158.3769**	**0.1617**	**3.4900e-003**	**162.8540**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Unmitigated	198.4476	1.0955	0.0275	229.9635
Mitigated	198.4476	1.0953	0.0274	229.9466

7.2 Water by Land Use

Unmitigated

	Indoor/ Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments High Rise	31.5345 / 19.8805	190.7141	1.0359	0.0260	220.5214
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	1.8212 / 0.116247	7.7335	0.0597	1.4700e-003	9.4421
Total		**198.4476**	**1.0955**	**0.0275**	**229.9635**

Mitigated

	Indoor/ Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments High Rise	31.5345 / 19.8805	190.7141	1.0357	0.0259	220.5055
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	1.8212 / 0.116247	7.7335	0.0597	1.4700e-003	9.4412
Total		**198.4476**	**1.0953**	**0.0274**	**229.9466**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	59.2226	3.5000	0.0000	132.7217
Unmitigated	59.2226	3.5000	0.0000	132.7217

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments High Rise	222.64	45.1939	2.6709	0.0000	101.2825
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	69.11	14.0287	0.8291	0.0000	31.4392
Total		**59.2226**	**3.5000**	**0.0000**	**132.7217**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments High Rise	222.64	45.1939	2.6709	0.0000	101.2825
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	69.11	14.0287	0.8291	0.0000	31.4392
Total		**59.2226**	**3.5000**	**0.0000**	**132.7217**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Appendix B

Traffic Impact Analysis Report
Symphony Apartments
dated July 24, 2014

LINSCOTT
LAW &
GREENSPAN
engineers

TRAFFIC IMPACT ANALYSIS REPORT

SYMPHONY APARTMENTS

Costa Mesa , California
July 24, 2014
(Update of the June 30, 2014 Report)

Prepared for:

WILSON/MEANY
Four Embarcadero Center, Suite 3330
San Francisco, CA 94111

and

CITY OF COSTA MESA
77 Fair Drive
Costa Mesa, California 92626

REGISTERED PROFESSIONAL ENGINEER
SHANE S. GREEN
No. 78943
Exp. 3/31/16
CIVIL
STATE OF CALIFORNIA

LLG Ref. 2-13-3431

Prepared by:

Shane S. Green, P.E.
Transportation Engineer III

Under the Supervision of:

Keil D. Maberry, P.E.
Principal

Linscott, Law & Greenspan, Engineers
2 Executive Circle
Suite 250
Irvine, CA 92614
949.825.6175 T
949.825.6173 F
www.llgengineers.com

TABLE OF CONTENTS

SECTION	PAGE
1.0 Introduction	**6**
1.1 Study Area	7
2.0 Project Description	**8**
2.1 Site Access	8
3.0 Existing Conditions	**10**
3.1 Existing Street System	10
3.2 Existing Traffic Volumes	10
3.3 Existing Intersection Conditions	11
3.3.1 Intersection Capacity Utilization (ICU) Method of Analysis	11
3.3.2 Highway Capacity Manual (HCM) Method of Analysis (Unsignalized Intersections)	13
3.4 Existing Level of Service Results	13
4.0 Traffic Forecasting Methodology	**16**
5.0 Project Traffic Characteristics	**17**
5.1 Project Traffic Generation	17
5.2 Project Traffic Distribution and Assignment	19
5.3 Existing Plus Project Traffic Conditions	19
6.0 Future Traffic Conditions	**20**
6.1 Ambient Traffic Growth	20
6.2 Related Projects Traffic Characteristics	20
6.3 Year 2017 Traffic Volumes	20
6.3.1 Year 2017 Traffic Volumes	20
7.0 Traffic Impact Analysis Methodology	**23**
7.1 Impact Criteria and Thresholds	23
7.2 Traffic Impact Analysis Scenarios	23
8.0 Peak Hour Intersection Capacity Analysis	**24**
8.1 Existing Plus Project Analysis	24
8.1.1 Existing Plus Project Traffic Conditions	24
8.2 Year 2017 Traffic Conditions	26
8.2.1 Year 2017 Cumulative Traffic Conditions	26
8.2.2 Year 2017 Cumulative Plus Project Conditions	26
8.3 Traffic Signal Warrant Analysis	28
8.3.1 Year 2017 Cumulative Plus Project Traffic Conditions	28
9.0 Site Access Evaluation	**30**

TABLE OF CONTENTS (CONTINUED)

SECTION	PAGE
10.0 Traffic Impact Fees	**31**
11.0 Congestion Management Program (CMP) Compliance Assessment	**33**
12.0 Summary Of Findings And Conclusions	**35**

APPENDICES

APPENDIX

A. Existing Traffic Count Data

B. Intersection Level of Service Calculation Worksheets

C. Traffic Signal Warrant Worksheets

D. Queuing Worksheets

LIST OF FIGURES

SECTION—FIGURE #		FOLLOWING PAGE
1-1	Vicinity Map	7
2–1	Existing Site	8
2-2	Proposed Site Plan	9
3-1	Existing Roadway Conditions and Intersection Controls	10
3-2	Existing AM Peak Hour Traffic Volumes	10
3-3	Existing PM Peak Hour Traffic Volumes	10
5-1	Project Distribution Pattern	19
5-2	AM Peak Hour Project Traffic Volumes	19
5-3	PM Peak Hour Project Traffic Volumes	19
5-4	Existing Plus Project AM Peak Hour Traffic Volumes	19
5-5	Existing Plus Project PM Peak Hour Traffic Volumes	19
6-1	Location of Related Projects	20
6-2	AM Peak Hour Related Projects Traffic Volumes	22
6-3	PM Peak Hour Related Projects Traffic Volumes	22
6-4	Year 2017 AM Peak Hour Cumulative Traffic Volumes	22
6-5	Year 2017 PM Peak Hour Cumulative Traffic Volumes	22
6-6	Year 2017 AM Peak Hour Cumulative Plus Project Traffic Volumes	22
6-7	Year 2017 PM Peak Hour Cumulative Plus Project Traffic Volumes	22
9-1	Anton Boulevard Conceptual Striping Plan	30

LIST OF TABLES

SECTION—TABLE #		PAGE
2-1	Project Development Summary	9
3-1	Level of Service Criteria For Signalized Intersections	12
3-2	Level of Service Criteria For Unsignalized Intersections	14
3-3	Existing Peak Hour Intersection Capacity Analysis	15
5-1	Project Traffic Generation Forecast	18
6-1	Location and Description of Related Projects	21
6-2	Related Projects Trip Generation Forecast	22
8-1	Existing Plus Project Peak Hour Intersection Capacity Analysis	25
8-2	Year 2017 Peak Hour Intersection Capacity Analysis	27
8-3	Year 2017 Cumulative Plus Project Signal Warrant Summary	29
10-1	Traffic Impact Fees	32
11-1	Project Percentage Radius of Influence CMP Analysis	34

TRAFFIC IMPACT ANALYSIS REPORT

SYMPHONY APARTMENTS

Costa Mesa, California
July 24, 2014
(Update of the June 30, 2014 Report)

1.0 INTRODUCTION

This traffic impact analysis addresses the potential traffic impacts associated with the proposed Symphony Apartments Project (hereinafter referred to as Project) in the City of Costa Mesa, California. The proposed Project includes the demolition of the existing 16,500 SF of restaurant use and the development of a 393 unit apartment complex, consisting of 239 one-bedroom units and 154 two-bedroom units with a multi-level parking structure. In addition, the Project is proposing to have 4,104 SF of retail use which will be used primarily by tenants and adjacent South Coast MetroCenter development. Parking will be provided on-site via a three-level parking structure with 731 spaces. Please note that project site is entitled for up to 484 high-rise residential condominium units and 6,000 SF of general commercial/retail use.

This report documents the findings and recommendations of a traffic impact analysis conducted by Linscott, Law & Greenspan, Engineers (LLG) to determine the potential impacts associated with the proposed Project. The traffic analysis evaluates the existing operating conditions at four (4) key study intersections within the project vicinity, estimates the trip generation potential of the Project, and forecasts future operating conditions without and with the proposed Project. Where necessary, intersection improvements/mitigation measures are identified.

This traffic report satisfies the *City of Costa Mesa Traffic Impact Analysis Methodology,* dated February 2009 and is consistent with the requirements and procedures outlined in the most current *Congestion Management Program (CMP) for Orange County.* The Scope of Work for this traffic study was developed in conjunction with City of Costa Mesa Public Works Department staff.

The project site has been visited and an inventory of adjacent area roadways and intersections was performed. Existing peak hour traffic information has been collected at four (4) key study intersections for use in the preparation of level of service calculations. Information concerning cumulative projects (planned and/or approved) in the vicinity of the project has been researched at the City of Costa Mesa, City of Santa Ana and City of Irvine. Based on our research, there are two (2) related projects located in the City of Costa Mesa and two (2) related projects located in the City of Santa Ana.

This traffic report analyzes existing and future weekday AM peak hour and PM peak hour traffic conditions for a near-term (Year 2017) traffic setting upon completion of the proposed Project. Near-term (Year 2017) cumulative peak hour traffic forecasts were projected by incorporating a one percent (1.0%) annual growth rate and the trip generation potential of the four (4) related projects.

1.1 Study Area

The four (4) key study intersections selected for evaluation in this report provide both regional and local access to the study area. They consist of the following:

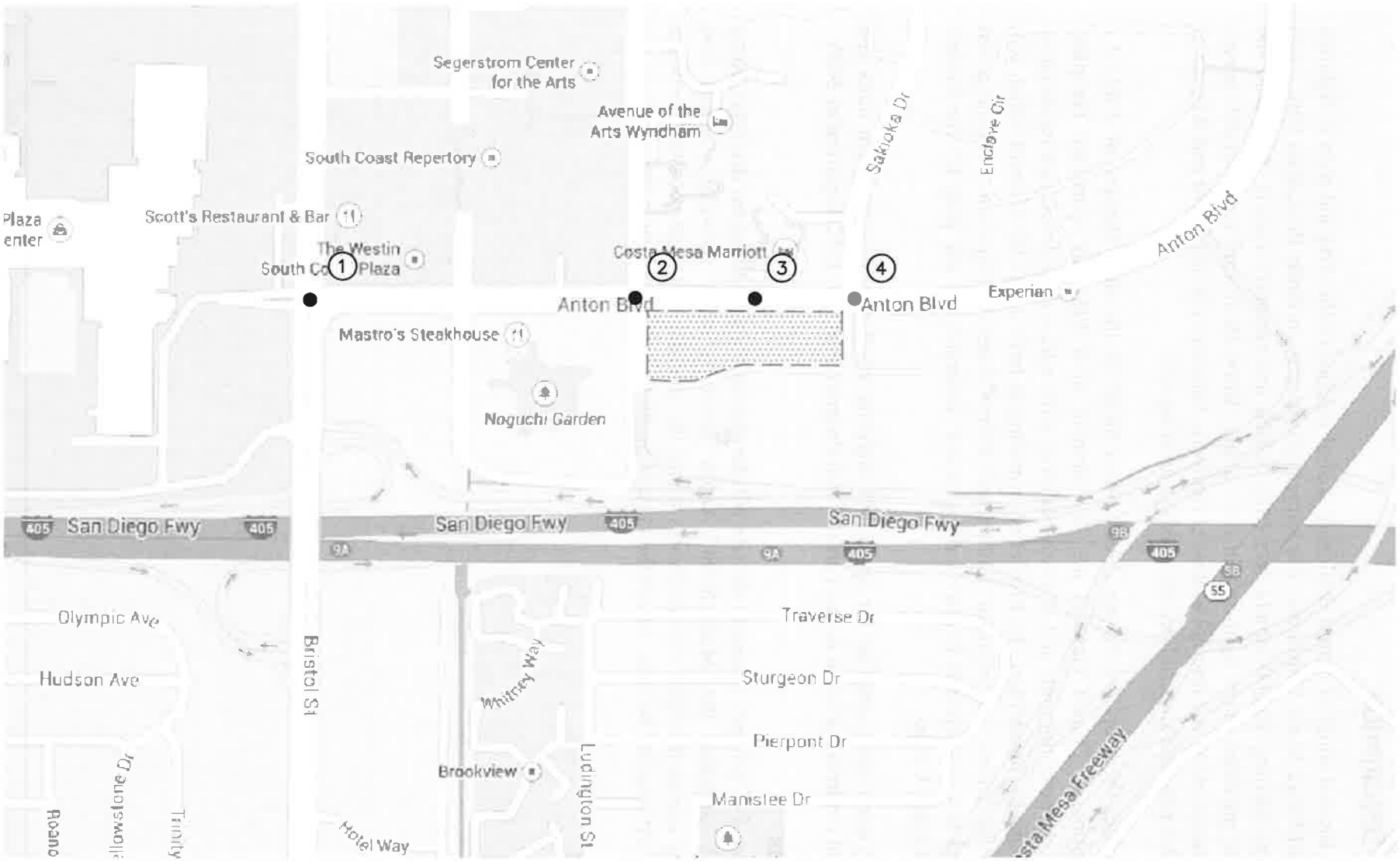
Study Intersections

1. Bristol Street at Anton Boulevard (Signalized)
2. Avenue of the Arts at Anton Boulevard (Signalized)
3. Marriott/580 Anton Driveway at Anton Boulevard (Unsignalized)
4. Sakioka Drive at Anton Boulevard (Signalized)

Figure 1-1 presents a Vicinity Map, which illustrates the general location of the proposed Project and depicts the study locations and surrounding street system. The Level of Service (LOS) investigations at these key locations were used to evaluate the potential traffic-related impacts associated with area growth, cumulative projects and the proposed Project. When necessary, this report recommends intersection improvements that may be required to accommodate future traffic volumes and restore/maintain an acceptable Level of Service and/or mitigate the impact of the project.

Included in this Traffic Impact Analysis are:

- Existing traffic counts,
- Estimated project traffic generation/distribution/assignment,
- AM and PM peak hour capacity analyses for existing conditions,
- AM and PM peak hour capacity analyses for existing plus project conditions,
- AM and PM peak hour capacity analyses for future near-term (Year 2017) traffic conditions without and with the proposed Project,
- Site Access Evaluation and
- Congestion Management Program Compliance Assessment.



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LINSCOTT LAW & GREENSPAN engineers

N NO SCALE

SOURCE: GOOGLE

KEY

(#) = STUDY INTERSECTION

= PROJECT SITE

FIGURE 1-1

VICINITY MAP

SYMPHONY APARTMENTS, COSTA MESA

2.0 PROJECT DESCRIPTION

The project site is located south of Anton Boulevard east of Avenue of the Arts and west of Sakioka Drive in the City of Costa Mesa, California. The subject property is currently developed with a two restaurant buildings totaling 16,500 square feet (SF), which are currently vacant. Access to the Project site is now provided via a right-turn in only along Anton Boulevard and two full access unsignalized driveways along the internal east-west roadway, between Sakioka Drive and Avenue of the Arts. ***Figure 2-1*** presents an aerial depiction of the existing site.

Table 2-1 summarizes the proposed Project development totals for the site. Review of *Table 2-1* shows that the proposed Project includes the development of a 393 unit apartment complex, consisting of 239 one-bedroom units and 154 two-bedroom units with a three-level parking structure consisting of 731 spaces. In addition, the Project is proposing to have 4,104 SF of retail which will be used primarily by tenants and adjacent South Coast MetroCenter development. The proposed Project is expected to be completed by 2017. ***Figures 2-2*** illustrates the site plan for the Project prepared by MJS Design Group.

Please note that project site is entitled for up to 484 high-rise residential condominium units and 6,000 SF of general commercial/retail use as part of Final Program EIR No. 1052 approved in 2006.

2.1 Site Access

As shown in *Figure 2-2*, primary access to the site will be provided via a full access driveway along Anton Boulevard, opposite the Marriott/580 Anton driveway with secondary access and emergency/loading access provided via driveways along the internal east-west roadway, between Sakioka Drive and Avenue of the Arts, within the current South Coast MetroCenter site.

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SOURCE: GOOGLE

KEY

= PROJECT SITE

FIGURE 2-1

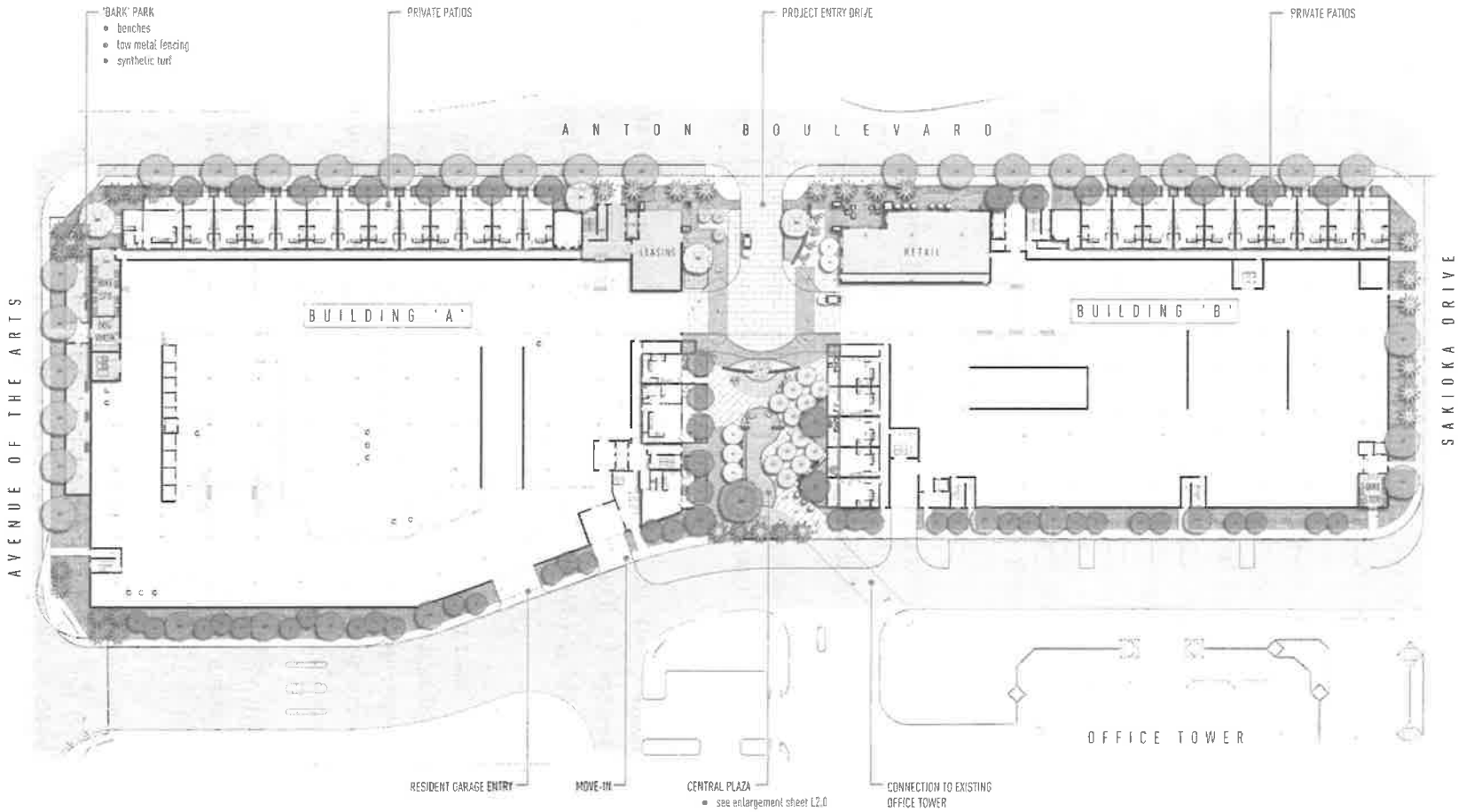
EXISTING SITE

SYMPHONY APARTMENTS, COSTA MESA

TABLE 2-1
PROJECT DEVELOPMENT SUMMARY[1]

Land Use / Project Description	Proposed Development Totals
Symphony Apartments	
▪ 1 Bedroom Units	239 Units
▪ 2 Bedroom Units	154 Units
Total Units:	***393 Units***
▪ Retail	4,104 SF
▪ Parking Supply	731 spaces

[1] Source: MJS Design Group.



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LINSCOTT LAW & GREENSPAN engineers

N NO SCALE

SOURCE: MJS DESIGN GROUP

FIGURE 2-2

PROPOSED SITE PLAN
SYMPHONY APARTMENTS, COSTA MESA

3.0 EXISTING CONDITIONS

3.1 Existing Street System

The principal local network of streets serving the project site includes Anton Boulevard, Bristol Street, Avenue of the Arts, and Sakioka Drive. The following discussion provides a brief synopsis of these key area streets. The descriptions are based on an inventory of existing roadway conditions.

Anton Boulevard is generally a six-lane, divided roadway oriented in the east-west direction. East of Sakioka Drive, Anton Boulevard is a four-lane, divided roadway. Anton Boulevard borders the project site to the north. The posted speed limit on Baker Street is 35 miles per hour (mph). On-street parking is not permitted along this roadway in the vicinity of the project. Traffic signals control the study intersections of Anton Boulevard at Bristol Street, Avenue of the Arts, and Sakioka Drive.

Bristol Street is generally an eight-lane, divided roadway, oriented in the north-south direction. The posted speed limit on Bristol Street is 45 mph. On-street parking is not permitted along this roadway in the vicinity of the project.

Avenue of the Arts is a four-lane, divided roadway oriented in the north-South direction. Avenue of the Arts borders the project site to the west. The posted speed limit on Avenue of the Arts is 35 mph. On-street parking is not permitted along this roadway in the vicinity of the project.

Sakioka Drive is a four-lane, divided roadway, oriented in the north-south direction. The posted speed limit on Sakioka Drive is 35 mph. On-street parking is not permitted along this roadway in the vicinity of the project site.

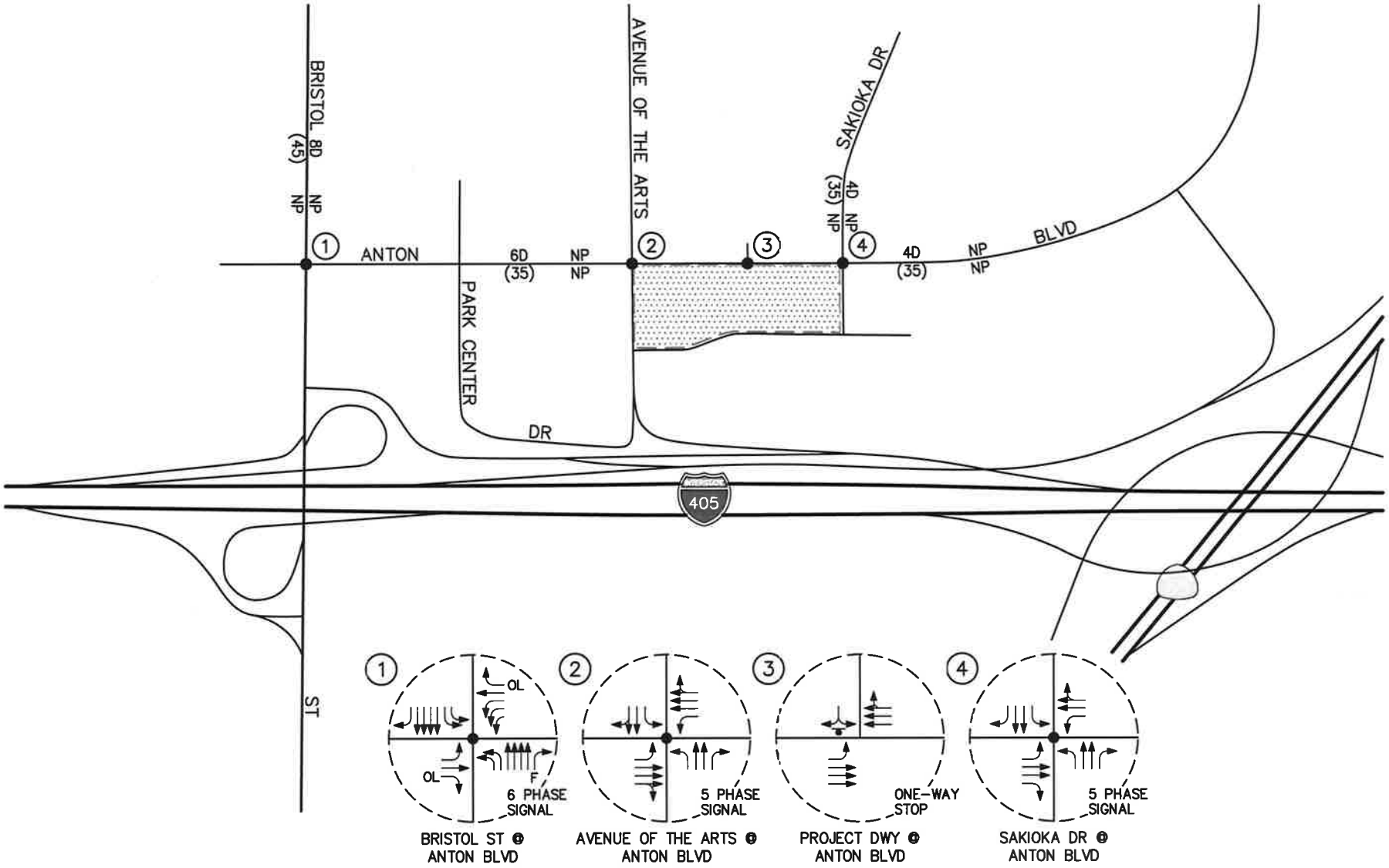
Figure 3-1 presents an inventory of the existing roadway conditions for the arterials and intersections evaluated in this report. This figure identifies the number of travel lanes for key arterials, as well as intersection configurations and controls for the key area study intersections.

3.2 Existing Traffic Volumes

Four (4) key study intersections have been identified as the locations at which to evaluate existing and future traffic operating conditions. Some portion of potential project-related traffic will pass through each of these intersections, and their analysis will reveal the expected relative impacts of the project. These key locations were selected for evaluation based on discussions with City of Costa Mesa staff and in consideration of Orange County CMP requirements.

Existing AM peak hour and PM peak hour traffic volumes for the four (4) key study intersections evaluated in this report were obtained from manual turning movement counts conducted by National Data & Surveying Services in May 2014.

Figures 3-2 and ***3-3*** illustrate the existing AM and PM peak hour traffic volumes at the four (4) key study intersections evaluated in this report, respectively. ***Appendix A*** contains the detailed peak hour and daily traffic count sheets for the key intersections evaluated in this report.



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N NO SCALE

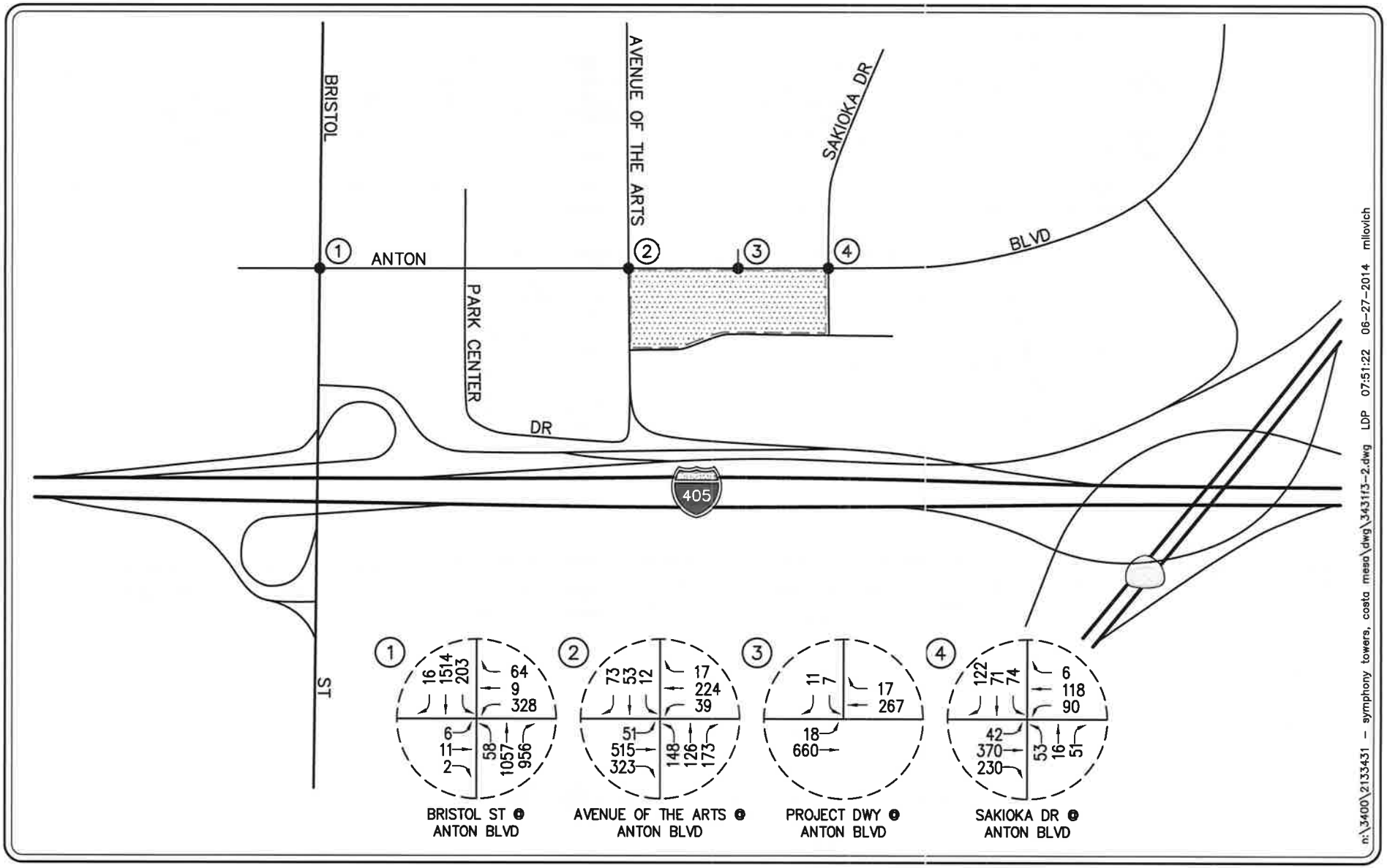
KEY

(#) = STUDY INTERSECTION
← = APPROACH LANE ASSIGNMENT
● = TRAFFIC SIGNAL, ▼ = STOP SIGN
P = PARKING, NP = NO PARKING
U = UNDIVIDED, D = DIVIDED
2 = NUMBER OF TRAVEL LANES
(XX) = POSTED SPEED LIMIT (MPH)
F = FREE-RIGHT
OL = OVERLAP
= PROJECT SITE

FIGURE 3-1

EXISTING ROADWAY CONDITIONS AND INTERSECTION CONTROLS

SYMPHONY APARTMENTS, COSTA MESA



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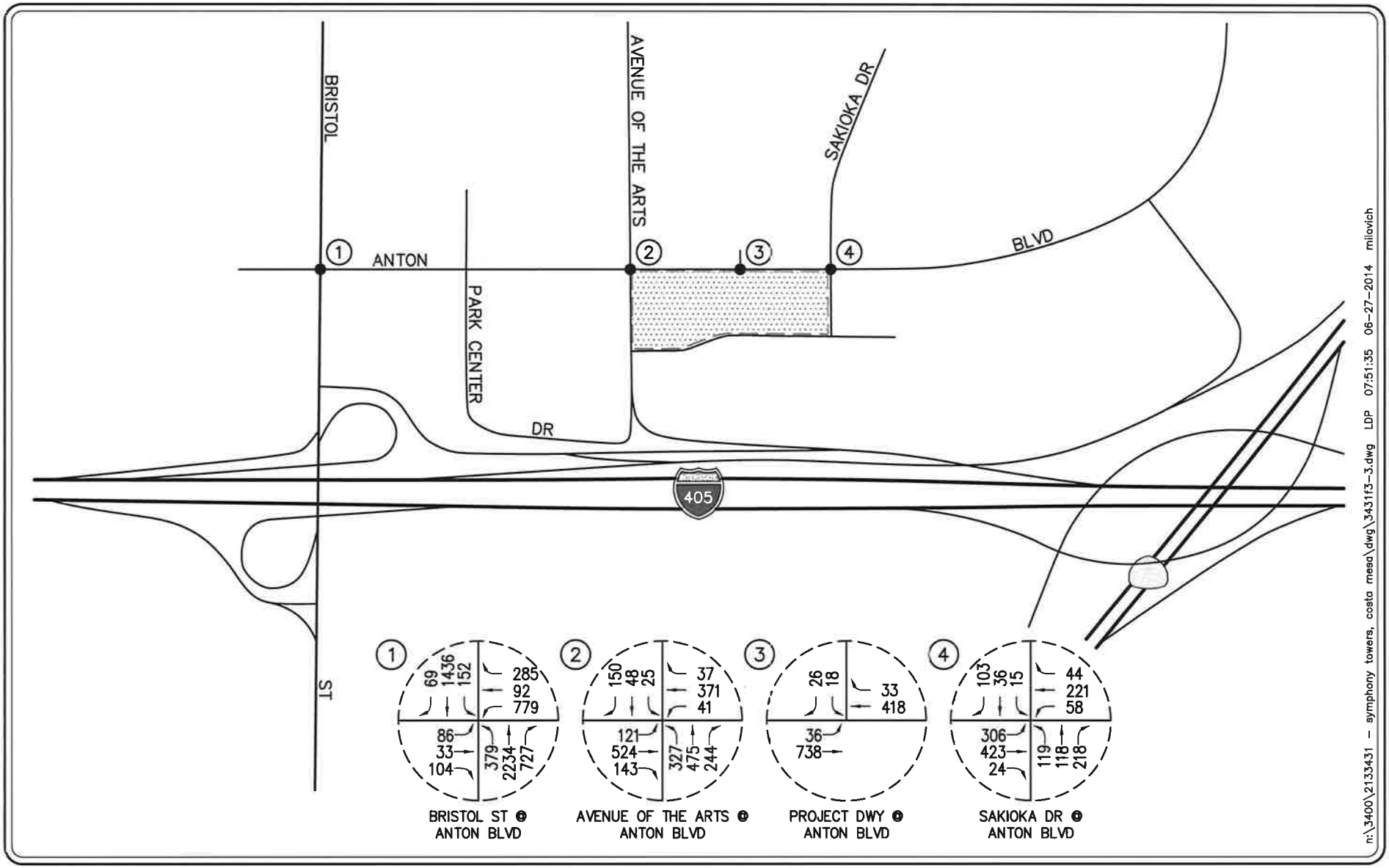
(#) = STUDY INTERSECTION

= PROJECT SITE

FIGURE 3-2

EXISTING AM PEAK HOUR TRAFFIC VOLUMES

SYMPHONY APARTMENTS, COSTA MESA



LINSCOTT LAW & GREENSPAN engineers

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KEY

(#) = STUDY INTERSECTION

= PROJECT SITE

FIGURE 3-3

EXISTING PM PEAK HOUR TRAFFIC VOLUMES

SYMPHONY APARTMENTS, COSTA MESA

3.3 Existing Intersection Conditions

Existing AM and PM peak hour operating conditions for the four (4) key study intersections were evaluated using the *Intersection Capacity Utilization* (ICU) methodology for signalized intersections and the methodology outlined in Chapter 17 of the *Highway Capacity Manual 2000* (HCM2000) for unsignalized intersections.

3.3.1 *Intersection Capacity Utilization (ICU) Method of Analysis*

In conformance with City of Costa Mesa and Orange County CMP requirements, existing AM and PM peak hour operating conditions for the key signalized study intersections were evaluated using the Intersection Capacity Utilization (ICU) method. The ICU technique is intended for signalized intersection analysis and estimates the volume to capacity (V/C) relationship for an intersection based on the individual V/C ratios for key conflicting traffic movements. The ICU numerical value represents the percent signal (green) time, and thus capacity, required by existing and/or future traffic. It should be noted that the ICU methodology assumes uniform traffic distribution per intersection approach lane and optimal signal timing.

Per City of Costa Mesa requirements, the ICU calculations use a lane capacity of 1,600 vph for left-turn lanes, through lanes and right-turn lanes. No adjustments for clearance intervals are made since the assumed lane capacity reflects the effect of lost time.

The ICU value translates to a Level of Service (LOS) estimate, which is a relative measure of the intersection performance. The ICU value is the sum of the critical volume to capacity ratios at an intersection; it is not intended to be indicative of the LOS of each of the individual turning movements. The six qualitative categories of Level of Service have been defined along with the corresponding ICU value range and are shown in ***Table 3-1***

The ICU value is the sum of the critical volume to capacity ratios at an intersection; it is not intended to be indicative of the LOS of each of the individual turning movements. According to City of Costa Mesa criteria, LOS D (ICU = 0.801 – 0.900) is the minimum acceptable condition that should be maintained during the morning and evening peak commute hours.

TABLE 3-1
LEVEL OF SERVICE CRITERIA FOR SIGNALIZED INTERSECTIONS

Level of Service (LOS)	Intersection Capacity Utilization Value (V/C)	Level of Service Description
A	≤ 0.600	EXCELLENT. No vehicle waits longer than one red light, and no approach phase is fully used.
B	0.601 – 0.700	VERY GOOD. An occasional approach phase is fully utilized; many drivers begin to feel somewhat restricted within groups of vehicles.
C	0.701 – 0.800	GOOD. Occasionally drivers may have to wait through more than one red light; backups may develop behind turning vehicles.
D	0.801 – 0.900	FAIR. Delays may be substantial during portions of the rush hours, but enough lower volume periods occur to permit clearing of developing lines, preventing excessive backups.
E	0.901 – 1.000	POOR. Represents the most vehicles intersection approaches can accommodate; may be long lines of waiting vehicles through several signal cycles.
F	> 1.000	FAILURE. Backups from nearby locations or on cross streets may restrict or prevent movement of vehicles out of the intersection approaches. Potentially very long delays with continuously increasing queue lengths.

3.3.2 *Highway Capacity Manual (HCM) Method of Analysis (Unsignalized Intersections)*

The 2000 HCM unsignalized methodology for stop-controlled intersections was utilized for the analysis of the unsignalized intersections. This methodology estimates the average control delay for each of the subject movements and determines the level of service for each movement. For all-way stop controlled intersections, the overall average control delay measured in seconds per vehicle, and level of service is then calculated for the entire intersection. For one-way and two-way stop-controlled (minor street stop-controlled) intersections, this methodology estimates the worst side street delay, measured in seconds per vehicle and determines the level of service for that approach. The HCM control delay value translates to a Level of Service (LOS) estimate, which is a relative measure of the intersection performance. The six qualitative categories of Level of Service have been defined along with the corresponding HCM control delay value range, as shown in ***Table 3-2***.

3.4 Existing Level of Service Results

Table 3-3 summarizes the existing peak hour service level calculations for the four (4) key study intersections based on existing traffic volumes and current street geometrics. Review of *Table 3-3* indicates that all of the four (4) key study intersections currently operate at acceptable service levels (LOS D or better) during the AM and PM peak hour.

Appendix B presents the ICU/LOS and HCM/LOS calculation worksheets for the four (4) key study intersections for the AM peak hour and PM peak hour.

TABLE 3-2

LEVEL OF SERVICE CRITERIA FOR UNSIGNALIZED INTERSECTIONS[2]

Level of Service (LOS)	Highway Capacity Manual Delay Value (sec/veh)	Level of Service Description
A	≤ 10.0	Little or no delay
B	> 10.0 and ≤ 15.0	Short traffic delays
C	> 15.0 and ≤ 25.0	Average traffic delays
D	> 25.0 and ≤ 35.0	Long traffic delays
E	> 35.0 and ≤ 50.0	Very long traffic delays
F	> 50.0	Severe congestion

2 Source: *Highway Capacity Manual 2000*, Chapter 17 (Unsignalized Intersections).

TABLE 3-3
EXISTING PEAK HOUR INTERSECTION CAPACITY ANALYSIS

Key Intersection		Time Period	Jurisdiction	Control Type	ICU/HCM	LOS
1.	Bristol Street at Anton Boulevard	AM	City of Costa Mesa	6 Phase Signal	0.330	A
		PM			0.613	B
2.	Avenue of the Arts at Anton Boulevard	AM	City of Costa Mesa	5 Phase Signal	0.364	A
		PM			0.463	A
3.	Marriott/580 Anton Driveway at Anton Boulevard	AM	City of Costa Mesa	One-Way Stop	10.4 s/v	B
		PM			12.4 s/v	B
4.	Sakioka Drive at Anton Boulevard	AM	City of Costa Mesa	5 Phase Signal	0.309	A
		PM			0.420	A

4.0 TRAFFIC FORECASTING METHODOLOGY

In order to estimate the traffic impact characteristics of the proposed Project, a multi-step process has been utilized. The first step is traffic generation, which estimates the total arriving and departing traffic on a peak hour and daily basis. The traffic generation potential is forecast by applying the appropriate vehicle trip generation equations or rates to the project development tabulation.

The second step of the forecasting process is traffic distribution, which identifies the origins and destinations of inbound and outbound project traffic. These origins and destinations are typically based on demographics and existing/expected future travel patterns in the study area.

The third step is traffic assignment, which involves the allocation of project traffic to study area streets and intersections. Traffic assignment is typically based on minimization of travel time, which may or may not involve the shortest route, depending on prevailing operating conditions and travel speeds. Traffic distribution patterns are indicated by general percentage orientation, while traffic assignment allocates specific volume forecasts to individual roadway links and intersection turning movements throughout the study area.

With the forecasting process complete and project traffic assignments developed, the impact of the proposed project is isolated by comparing operational (LOS) conditions at selected key intersections using expected future traffic volumes with and without forecast project traffic. The need for site-specific and/or cumulative local area traffic improvements can then be evaluated and the significance of the project's impacts identified.

5.0 PROJECT TRAFFIC CHARACTERISTICS

5.1 Project Traffic Generation

The trip generation potential of the proposed Project has been estimated using the average rates for ITE Land Use 220: Apartments and ITE Land Use 933: Fast-Food Restaurant without Drive-Through published in the *Trip Generation, 9th Edition, Institute of Transportation Engineers (ITE), Washington, D.C. (2012)*. For the existing restaurant, the average trips rates for ITE Land Use 931: Quality Restaurant has been utilized.

While the upper half of ***Table 5-1*** summarizes the trip generation rates used in forecasting the vehicular trips generated by the proposed Project Land Use, the lower half provides a summary of the Project's daily, AM and PM peak hour trip generation potential as well as the existing entitled restaurant trip generation "budget".

A review of the lower portion of *Table 5-1* shows the trip generation forecast for the Project. As shown, the proposed Project is forecast to generate 2,770 daily trips, with 204 trips (41 inbound, 163 outbound) produced in the AM peak hour and 257 trips (163 inbound, 94 outbound) produced in the PM peak hour. The existing entitled restaurant uses are forecast to generate 1,336 daily trips, with 12 trips (6 inbound, 6 outbound) produced in the AM peak hour and 111 trips (75 inbound, 36 outbound) produced in the PM peak hour.

When the proposed Project is compared to the existing entitled restaurant use, the Project is forecast to result in 1,434 net daily trips, 192 net AM peak hour trips and 146 net PM peak hour.

For the purpose of this study since the existing entitled restaurant use is currently vacant no trip credit will be applied in forecasting to trips.

Please note that *Metro Center Residential and Retail Project prepared by LLG, dated November 3, 2005* identified up to 484 high-rise residential condominium units and 6,000 SF of general commercial/retail use. Direct comparison between the previously proposed/entitled site to the proposed Project results in 310 fewer daily trips, 19 fewer AM peak hour trips and 18 fewer trips PM peak hour trips. Therefore the proposed Project is forecast to have similar finds to what was previously analyzed.

TABLE 5-1
PROJECT TRAFFIC GENERATION FORECAST[3]

ITE Land Use Code / Project Description	Daily 2-Way	AM Peak Hour			PM Peak Hour		
		Enter	Exit	Total	Enter	Exit	Total
Generation Rates:							
▪ 220: Apartments (TE/DU)	6.65	0.10	0.41	0.51	0.40	0.22	0.62
▪ 931: Quality Restaurant (TE/KSF)[4]	80.96	0.37	0.36	0.73	4.52	2.22	6.74
▪ 820: Shopping Center (TE/KSF)	42.70	0.60	0.36	0.96	1.78	1.93	3.71
Generation Forecasts:							
Proposed Project							
▪ Symphony Apartments (393 DU)	2,613	39	161	200	157	87	244
▪ Retail (4,104 SF)	175	2	2	4	7	8	15
Internal Capture (10%)	*-18*	*0*	*0*	*0*	*-1*	*-1*	*-2*
Subtotal	*2,770*	*41*	*163*	*204*	*163*	*94*	*257*
Existing Entitled Quality Restaurant							
▪ Quality Restaurant (16,500 SF)	-1,336	-6	-6	-12	-75	-36	-111
Total Project Trip Generation (Proposed - Existing Entitled)	***1,434***	***35***	***157***	***192***	***88***	***58***	***146***

Notes:
TE/DU = Trip end per dwelling unit

[3] Source: *Trip Generation, 9th Edition*, Institute of Transportation Engineers, (ITE) [Washington, D.C. (2012)].
[4] Restaurant trips rates include a 10% pass-by reduction based on City of Costa Mesa Ordinance

5.2 Project Traffic Distribution and Assignment

Figures 5-1 presents the traffic distribution patterns for the proposed Project. Project traffic volumes both entering and exiting the site have been distributed and assigned to the adjacent street system based on the following considerations:

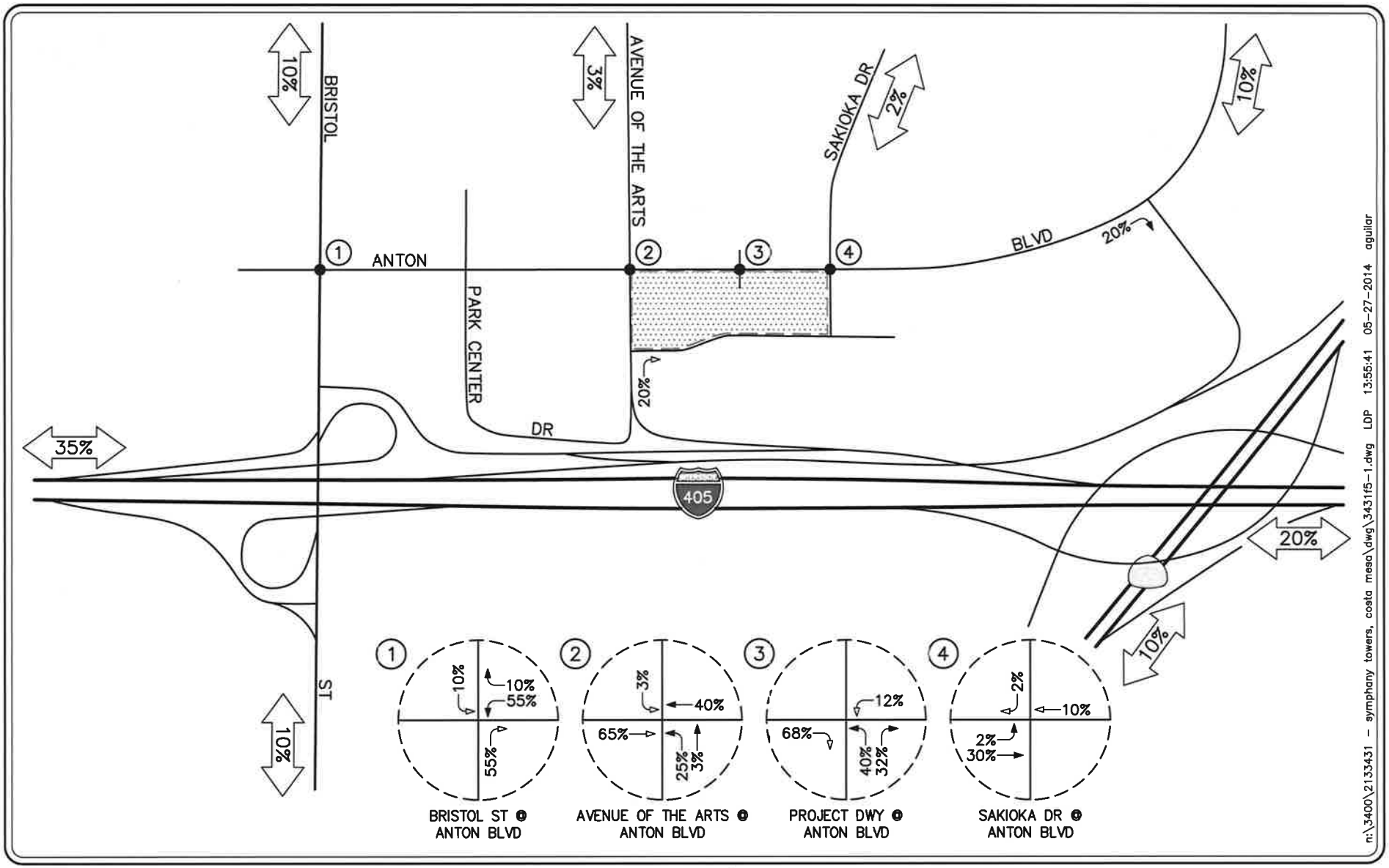
- the site's proximity to major traffic carriers (i.e. Anton Boulevard, Bristol Street, etc),
- expected localized traffic flow patterns based on adjacent street channelization and presence of traffic signals,
- existing intersection traffic volumes, and
- ingress/egress availability at the project site.

The anticipated AM and PM peak hour traffic volumes associated with the proposed Project are presented in ***Figures 5-2*** and ***5-3***, respectively. The traffic volume assignments presented in *Figures 5-2* and *5-3* reflect the traffic distribution characteristics shown in *Figure 5-1* and the traffic generation forecast presented in *Table 5-1*.

5.3 Existing Plus Project Traffic Conditions

The existing plus project traffic conditions have been generated based upon existing conditions and the estimated project traffic. These forecast traffic conditions have been prepared pursuant to the California Environmental Quality Act (CEQA) guidelines, which require that the potential impacts of a Project be evaluated upon the circulation system as it currently exists. This traffic volume scenario and the related intersection capacity analyses will identify the roadway improvements necessary to mitigate the direct traffic impacts of the Project, if any.

Figures 5-4 and ***5-5*** present projected AM and PM peak hour traffic volumes at the four (4) key study intersections with the addition of the trips generated by the proposed Project to existing traffic volumes, respectively.



LINSCOTT LAW & GREENSPAN engineers

NO SCALE

KEY

(#) = STUDY INTERSECTION

◄— = INBOUND PERCENTAGE

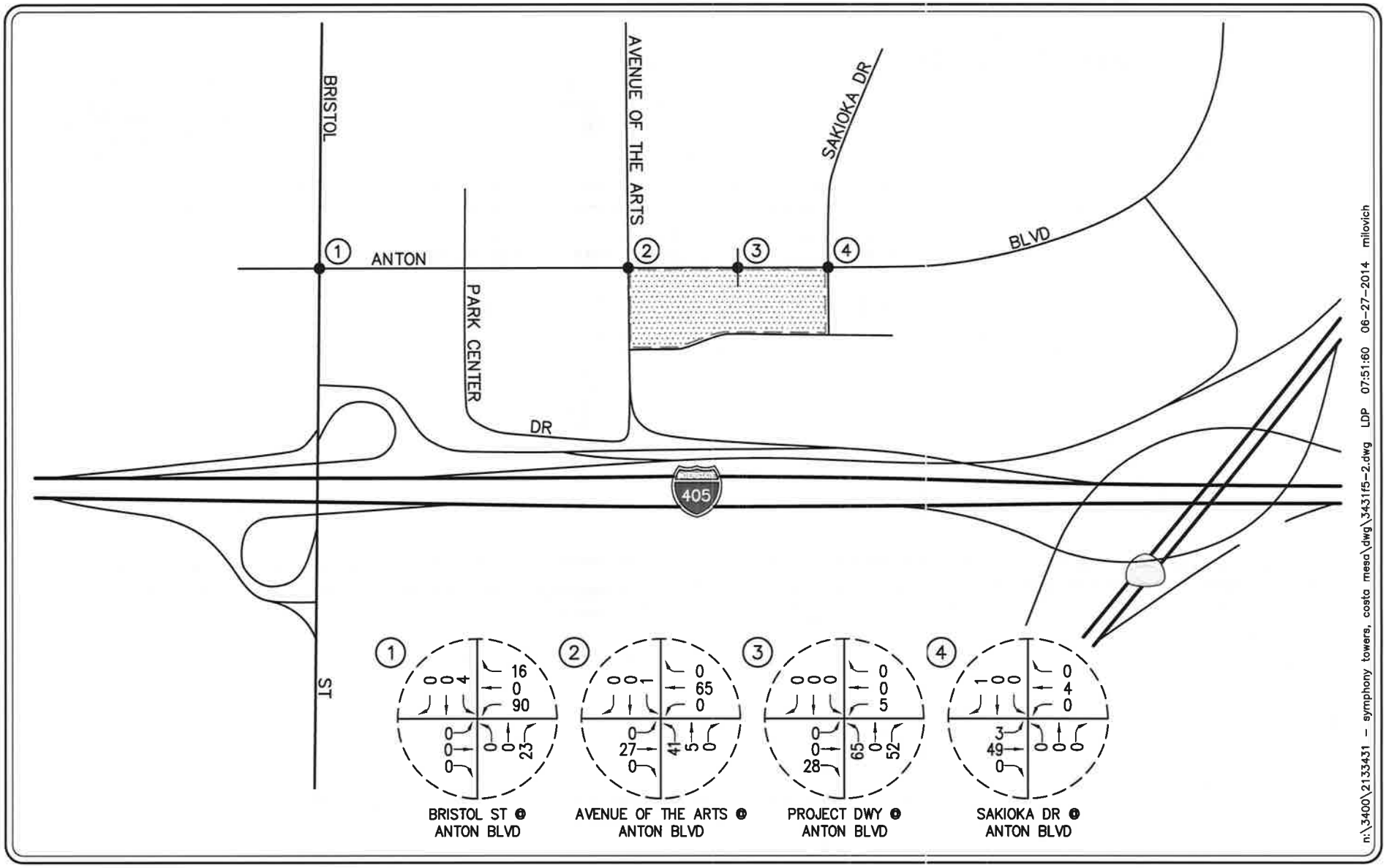
—► = OUTBOUND PERCENTAGE

▒ = PROJECT SITE

FIGURE 5–1

PROJECT DISTRIBUTION PATTERN

SYMPHONY APARTMENTS, COSTA MESA



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NO SCALE

KEY

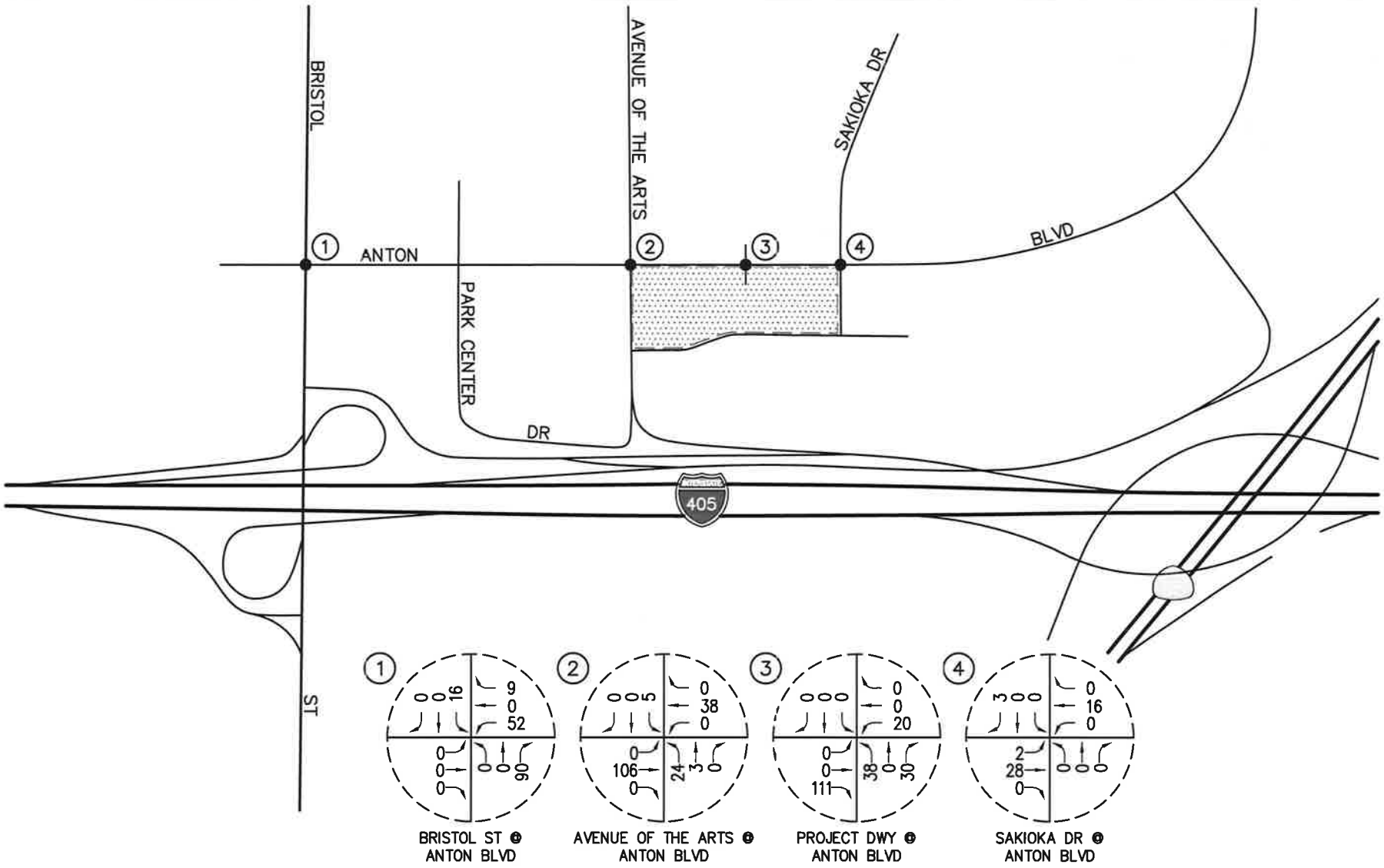
(#) = STUDY INTERSECTION

= PROJECT SITE

FIGURE 5-2

AM PEAK HOUR PROJECT TRAFFIC VOLUMES

SYMPHONY APARTMENTS, COSTA MESA



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NO SCALE

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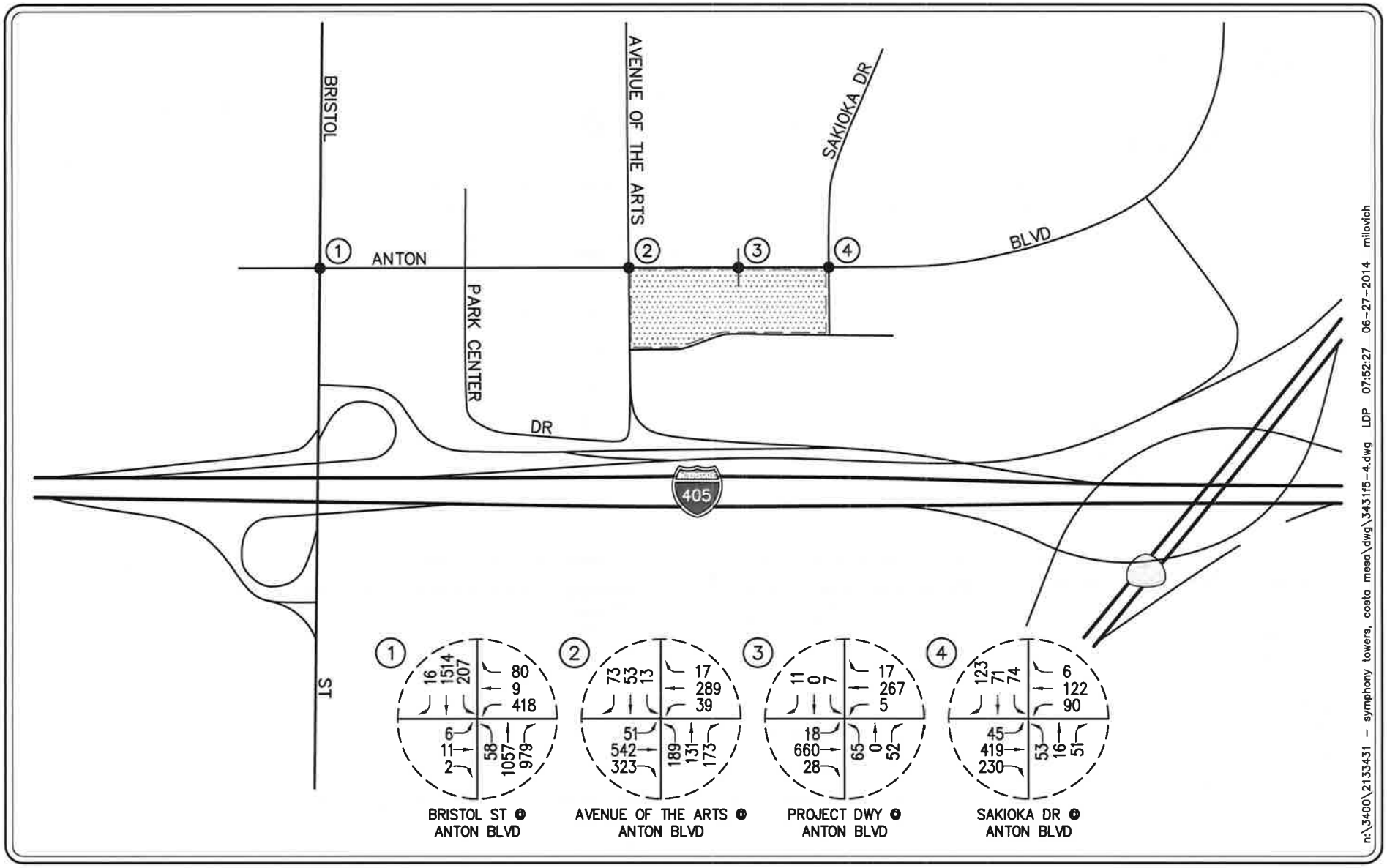
(#) = STUDY INTERSECTION

= PROJECT SITE

FIGURE 5-3

PM PEAK HOUR PROJECT TRAFFIC VOLUMES

SYMPHONY APARTMENTS, COSTA MESA



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LINSCOTT LAW & GREENSPAN engineers

N NO SCALE

KEY

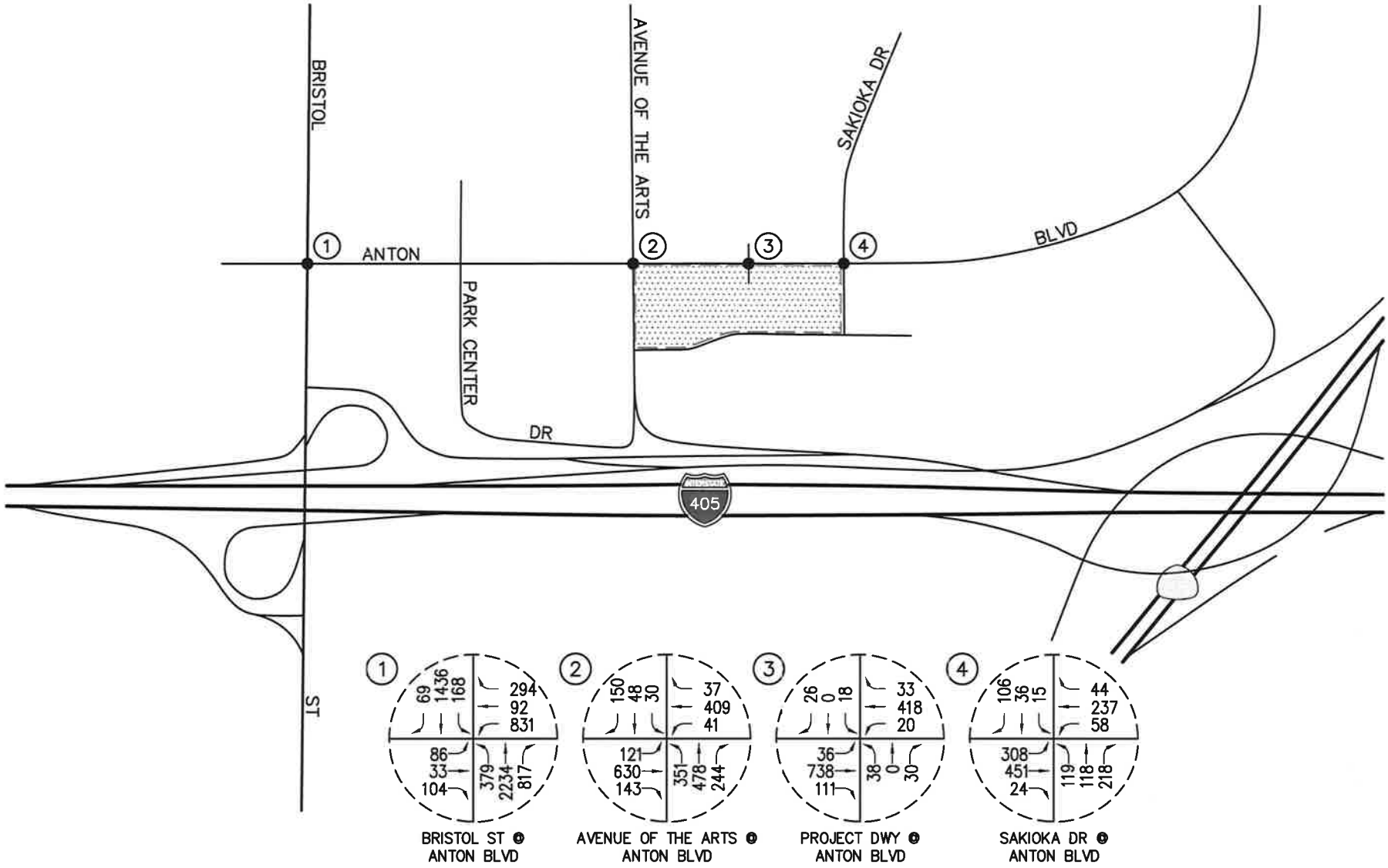
(#) = STUDY INTERSECTION

= PROJECT SITE

FIGURE 5-4

EXISTING PLUS PROJECT AM PEAK HOUR TRAFFIC VOLUMES

SYMPHONY APARTMENTS, COSTA MESA



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N NO SCALE

KEY

(#) = STUDY INTERSECTION

= PROJECT SITE

FIGURE 5-5

EXISTING PLUS PROJECT
PM PEAK HOUR TRAFFIC VOLUMES
SYMPHONY APARTMENTS, COSTA MESA

6.0 FUTURE TRAFFIC CONDITIONS

6.1 Ambient Traffic Growth

Horizon year, background traffic growth estimates have been calculated using an ambient traffic growth factor. The ambient traffic growth factor is intended to include unknown and future related projects in the study area, as well as account for regular growth in traffic volumes due to the development of projects outside the study area. The future growth in traffic volumes has been calculated at one percent (1.0%) per year. Applied to the Year 2014 existing traffic volumes, this factor results in a 3.0% growth in existing volumes to the near-term horizon Year 2017.

6.2 Related Projects Traffic Characteristics

The Cities of Costa Mesa and Santa Ana identified four (4) related projects within the Project study area. Related projects, as defined by Section 15355 of the CEQA Guidelines, are "closely related past, present and reasonably foreseeable probable future projects." The Traffic Impact Analysis assumes that all of these related projects will be developed and operational when the proposed Project is operational. This is the most conservative, worst-case approach, since the exact timing of each related project is uncertain. In addition, impacts for these related projects would likely be, or have been, subject to mitigation measures, which could reduce potential impacts. Under this analysis, however, those mitigation measures are not considered. The locations of the four (4) related projects are presented in ***Figure 6-1***.

Table 6-1 presents the address, jurisdiction and description/size of the four (4) related projects. ***Table 6-2*** presents the resultant trip generation for the four (4) related projects. As shown in *Table 6-2*, the four (4) cumulative projects are expected to generate a combined total 7,593 daily trips (one half arriving, one half departing) on a "typical" weekday, with 503 trips (113 inbound and 390 outbound) forecast during the AM peak hour and 666 trips (427 inbound and 239 outbound) forecast during the PM peak hour. ***Figures 6-2*** and ***6-3*** present the AM and PM peak hour related project volumes.

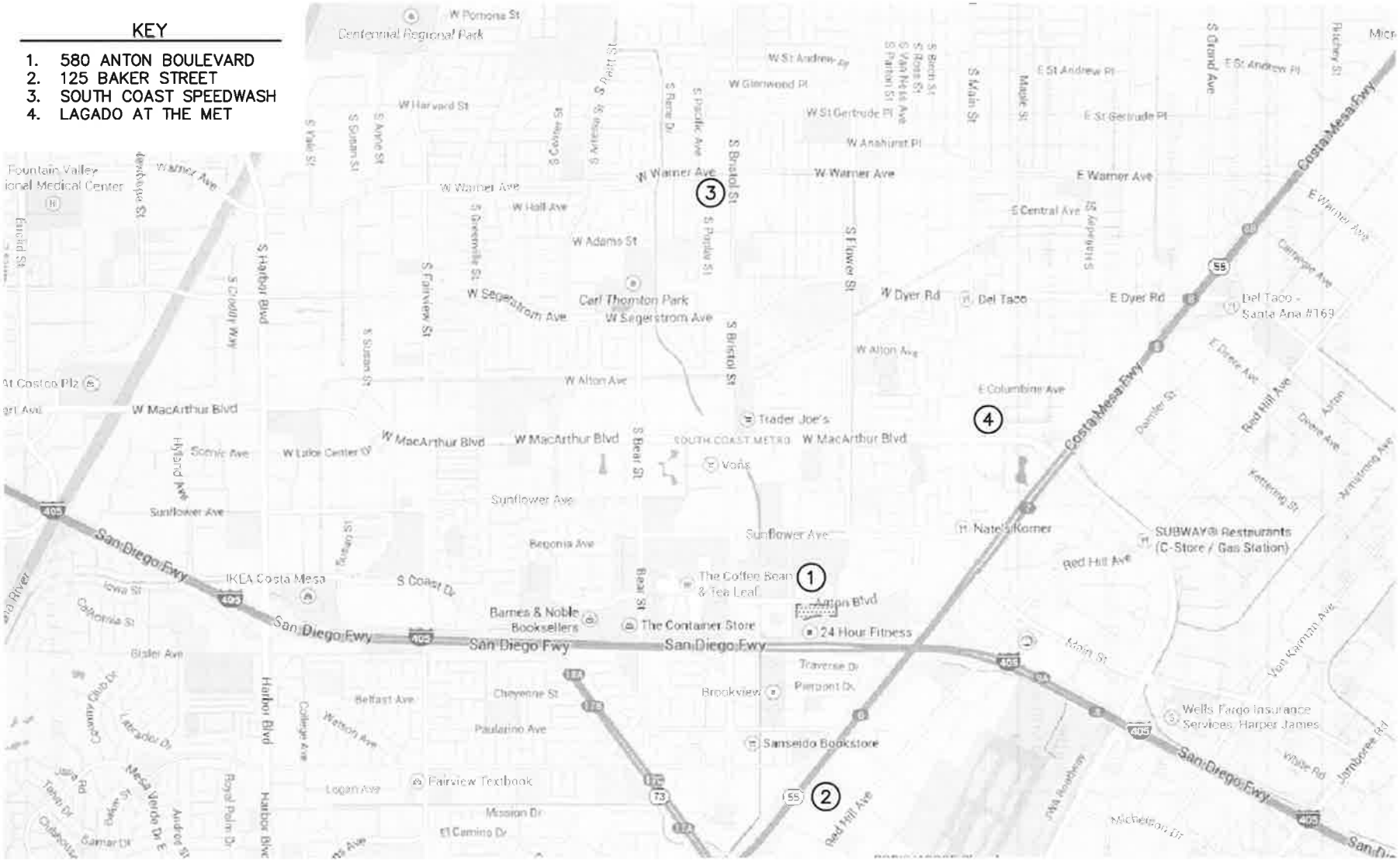
6.3 Year 2017 Traffic Volumes

6.3.1 *Year 2017 Traffic Volumes*

Figures 6-4 and ***6-5*** present the AM and PM peak hour cumulative traffic volumes (existing traffic + ambient growth + related projects) at the four (4) key study intersections for the Year 2017, respectively. ***Figures 6-6*** and ***6-7*** illustrate the Year 2017 forecast AM and PM peak hour traffic volumes, with the inclusion of the trips generated by the proposed Project, respectively.

KEY

1. 580 ANTON BOULEVARD
2. 125 BAKER STREET
3. SOUTH COAST SPEEDWASH
4. LAGADO AT THE MET



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LINSCOTT LAW & GREENSPAN engineers

N NO SCALE

SOURCE: GOOGLE

KEY

(#) = RELATED PROJECT

= PROJECT SITE

FIGURE 6-1

LOCATION OF RELATED PROJECTS
SYMPHONY APARTMENTS, COSTA MESA

TABLE 6-1
LOCATION AND DESCRIPTION OF RELATED PROJECTS[5]

No.	Cumulative Project	Address	Jurisdiction	Description/Size
1.	580 Anton Boulevard	Northeast corner of Avenue of the Arts and Anton Boulevard	Costa Mesa	250 high-rise condominiums
2.	125 Baker Street	Southeast corner of Baker Street and 55 Freeway	Costa Mesa	62,000 SF office building
3.	South Coast Speedwash	2402 South Bristol Street	Santa Ana	26,121 SF car wash facility
4.	Lagado at the Met	Northeast of Main Street and MacArthur Boulevard	Santa Ana	303 multi-family residential units

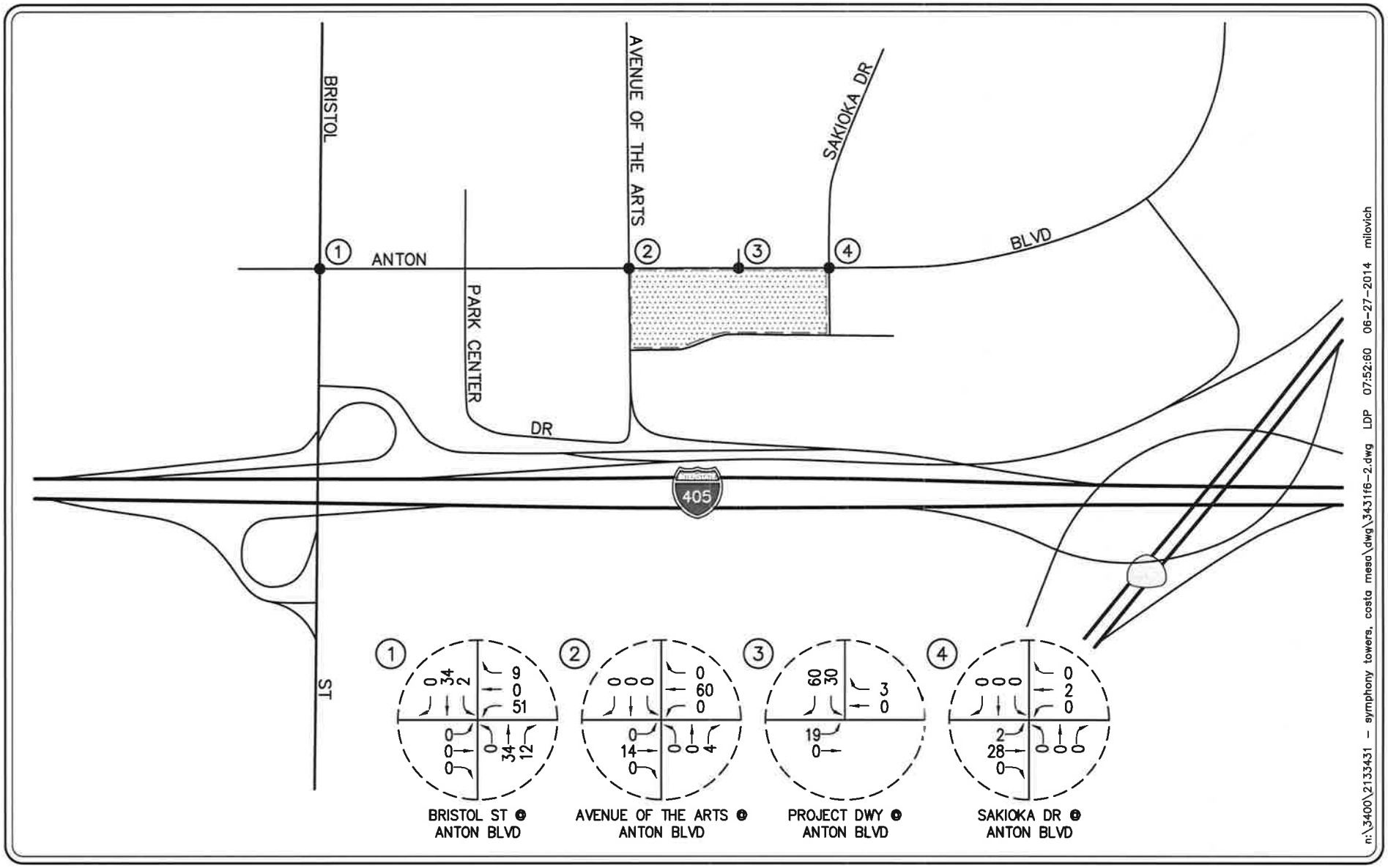
[5] Source: City of Costa Mesa and Santa Ana Public Works Department.

TABLE 6-2
RELATED PROJECTS TRIP GENERATION FORECAST[6]

Cumulative Project Description	Daily 2-Way	AM Peak Hour			PM Peak Hour		
		Enter	Exit	Total	Enter	Exit	Total
Costa Mesa							
1. 580 Anton Boulevard	1,512	22	93	115	90	49	139
2. 125 Baker Street	1,090	-29	94	65	74	18	92
Santa Ana							
3. South Coast Speedwash	2,976	90	79	169	142	105	247
4. Lagado at the Met	2,015	30	124	154	121	67	188
Cumulative Projects Trip Generation Potential	**7,593**	**113**	**390**	**503**	**427**	**239**	**666**

6 Source: *Trip Generation, 9th Edition, Institute of Transportation Engineers (ITE), Washington, D.C. (2012)*. Where applicable, pass-by adjustment factors were utilized and are reflected in the cumulative projects trip generation potential.

N:\3400\2133431 - Symphony Towers, Costa Mesa\Report\3431 Symphony Apartment Project TIA 7-24-14.doc



LINSCOTT LAW & GREENSPAN engineers

NO SCALE

KEY

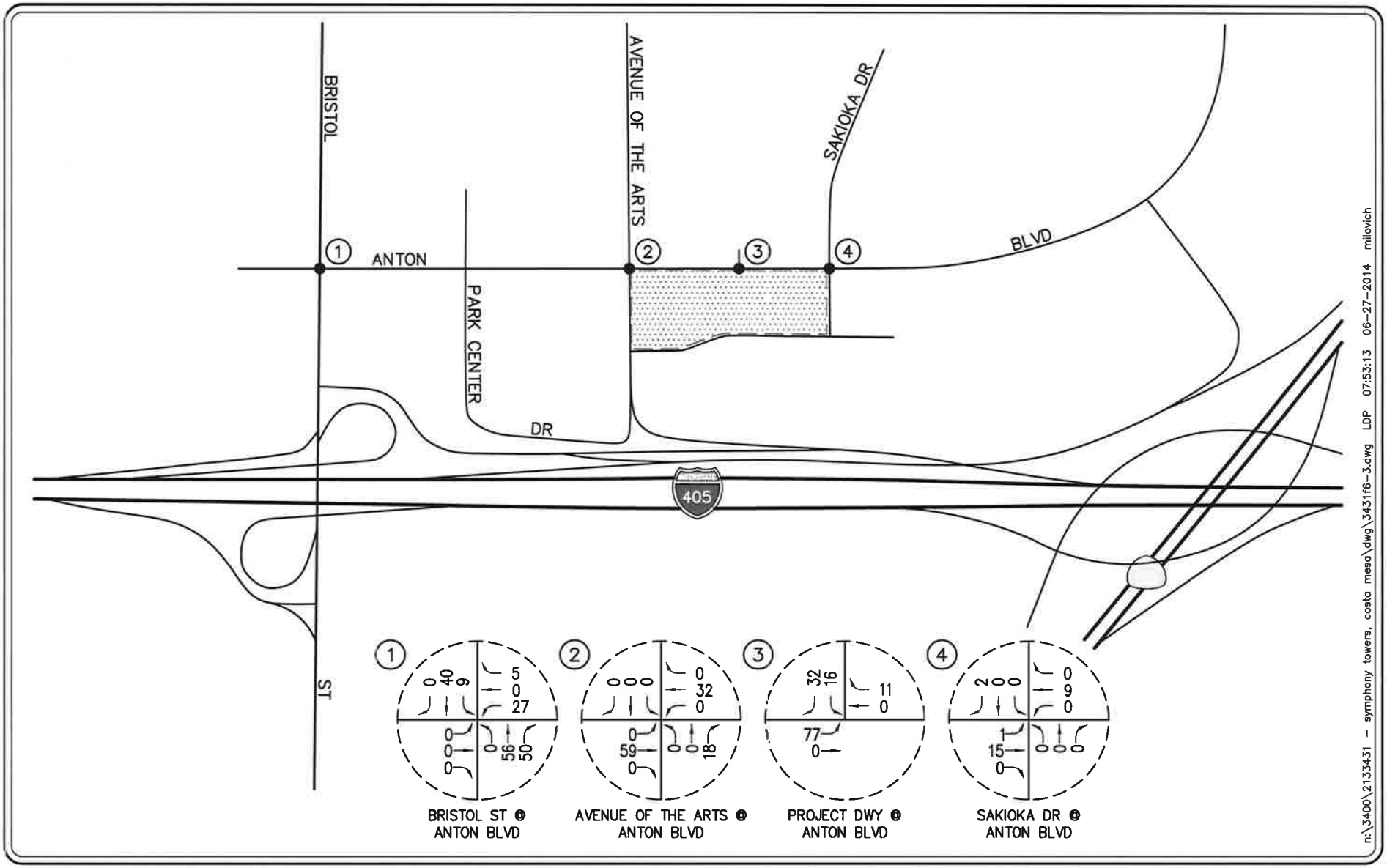
(#) = STUDY INTERSECTION

= PROJECT SITE

FIGURE 6-2

AM PEAK HOUR RELATED PROJECTS TRAFFIC VOLUMES

SYMPHONY APARTMENTS, COSTA MESA



LINSCOTT LAW & GREENSPAN engineers

NO SCALE

KEY

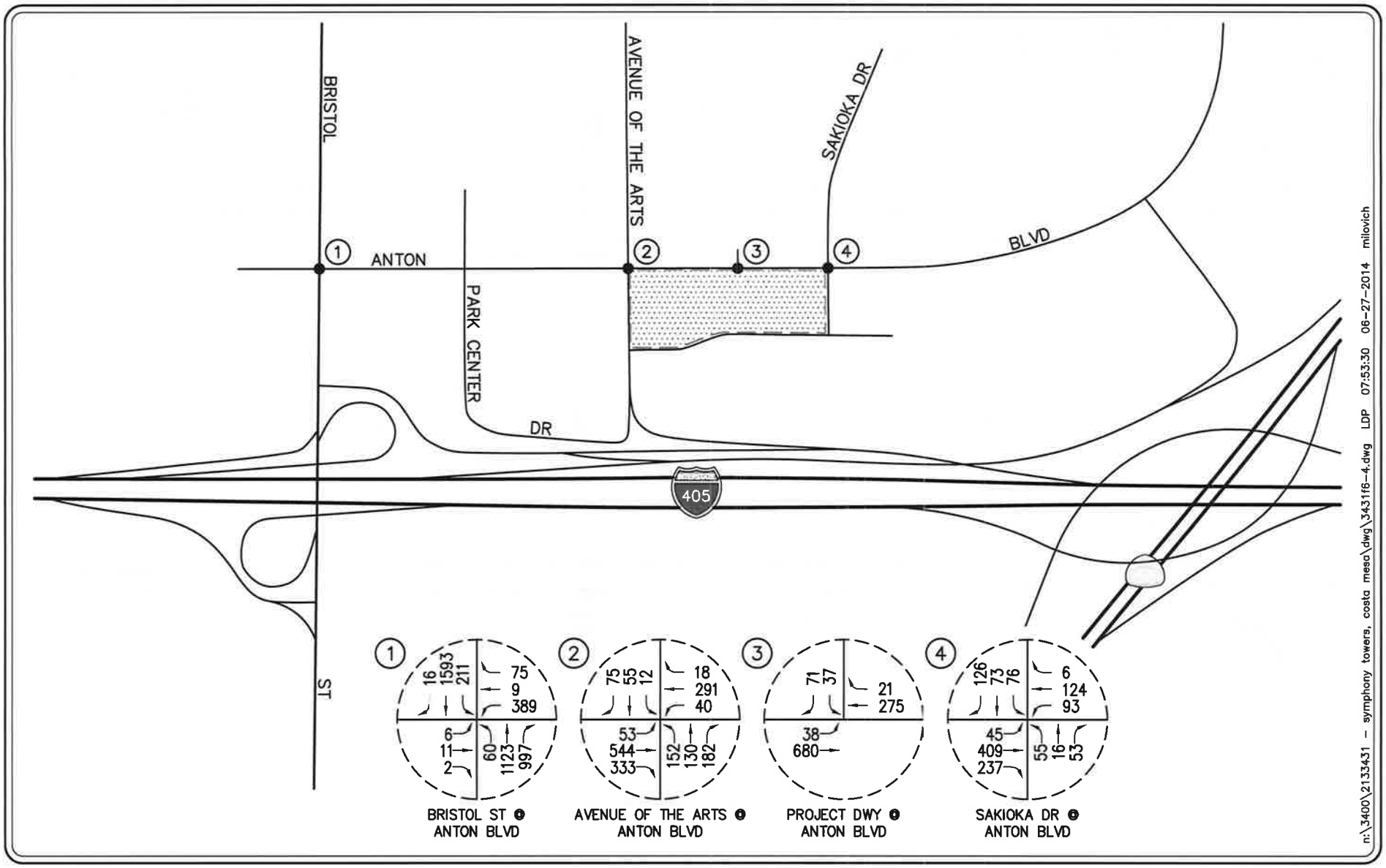
(#) = STUDY INTERSECTION

= PROJECT SITE

FIGURE 6-3

PM PEAK HOUR RELATED PROJECTS TRAFFIC VOLUMES

SYMPHONY APARTMENTS, COSTA MESA



LINSCOTT LAW & GREENSPAN engineers

N NO SCALE

KEY

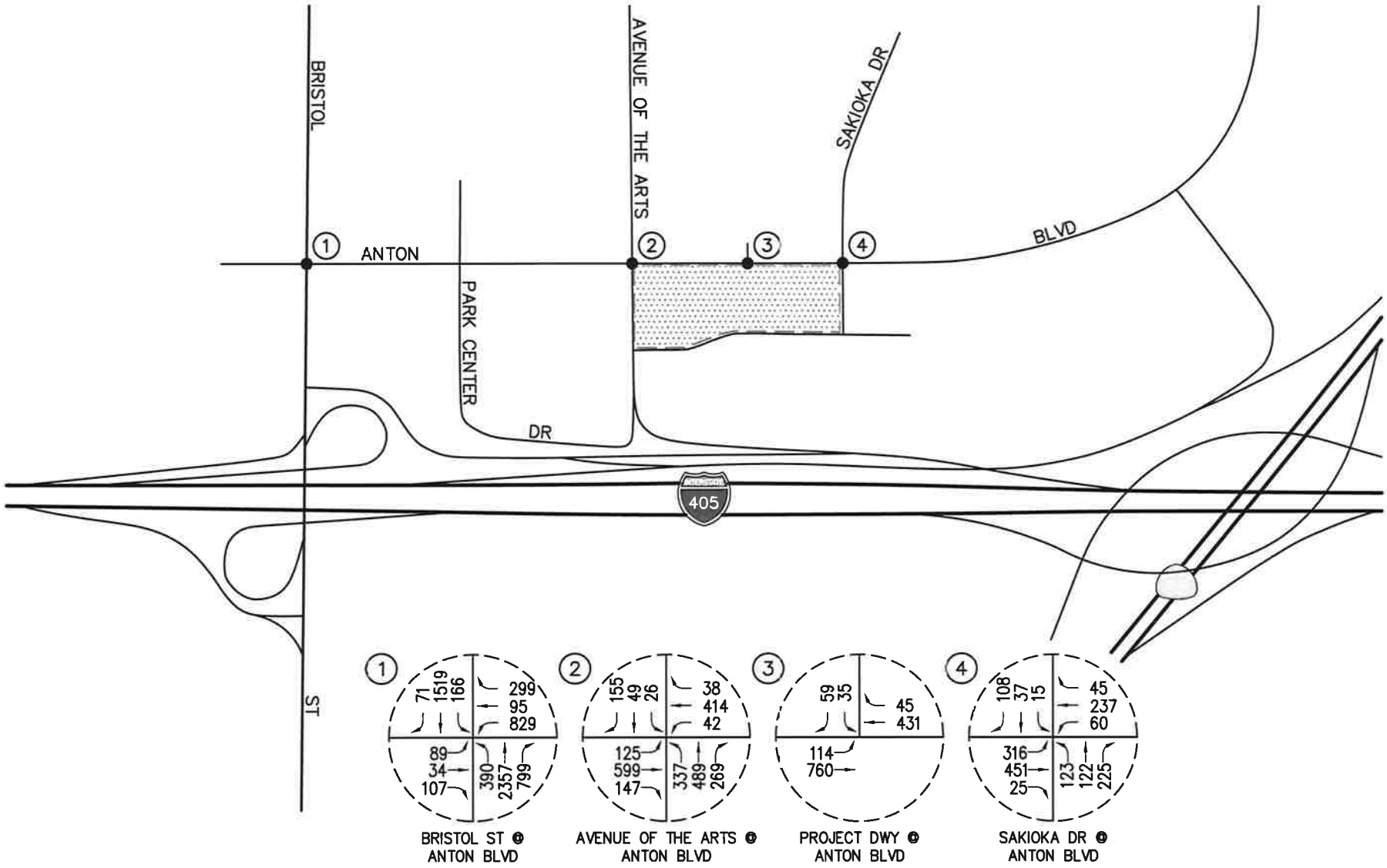
(#) = STUDY INTERSECTION

= PROJECT SITE

FIGURE 6-4

YEAR 2017 AM PEAK HOUR CUMULATIVE TRAFFIC VOLUMES

SYMPHONY APARTMENTS, COSTA MESA



LINSCOTT LAW & GREENSPAN engineers

N NO SCALE

KEY

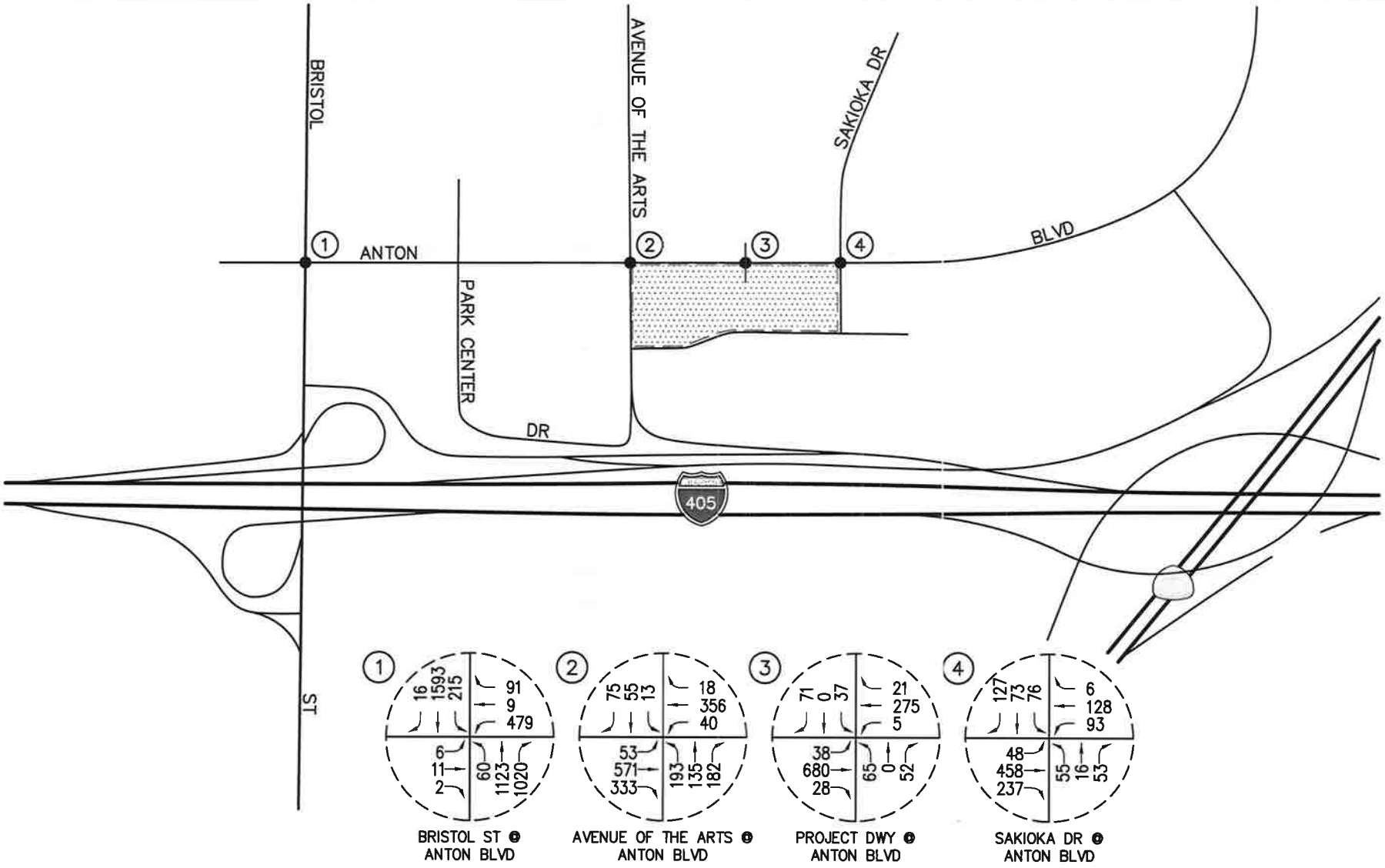
(#) = STUDY INTERSECTION

= PROJECT SITE

FIGURE 6-5

YEAR 2017 PM PEAK HOUR CUMULATIVE TRAFFIC VOLUMES

SYMPHONY APARTMENTS, COSTA MESA



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LINSCOTT LAW & GREENSPAN engineers

N NO SCALE

KEY

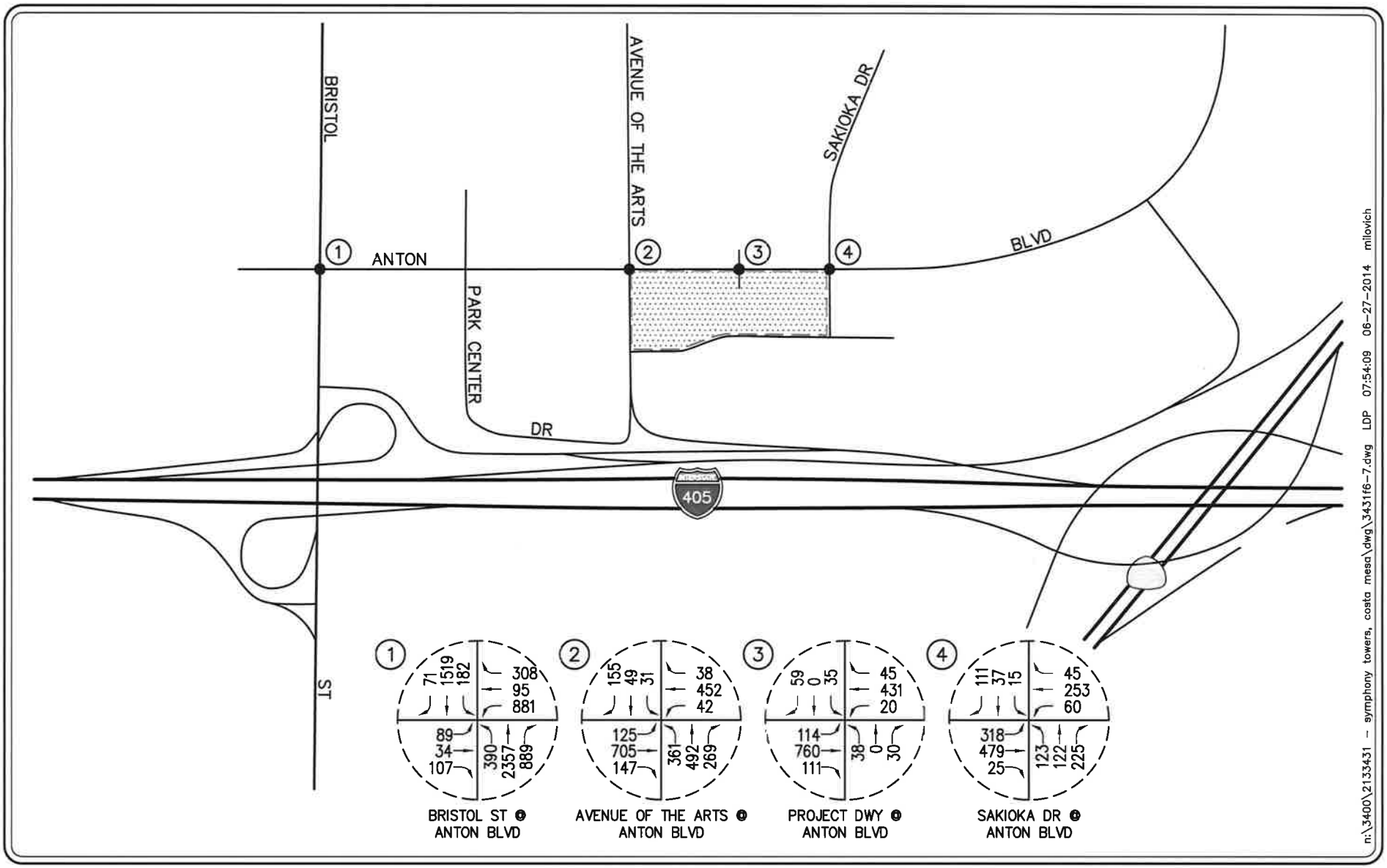
(#) = STUDY INTERSECTION

= PROJECT SITE

FIGURE 6-6

YEAR 2017 AM PEAK HOUR CUMULATIVE PLUS PROJECT TRAFFIC VOLUMES

SYMPHONY APARTMENTS, COSTA MESA



LINSCOTT LAW & GREENSPAN engineers

N NO SCALE

KEY

(#) = STUDY INTERSECTION

= PROJECT SITE

FIGURE 6-7

YEAR 2017 PM PEAK HOUR CUMULATIVE PLUS PROJECT TRAFFIC VOLUMES

SYMPHONY APARTMENTS, COSTA MESA

7.0 TRAFFIC IMPACT ANALYSIS METHODOLOGY

The relative impact of the proposed Project during the AM peak hour and PM peak hour was evaluated based on analysis of future operating conditions at the four (4) key study intersections, without, then with, the proposed Project. The previously discussed capacity analysis procedures were utilized to investigate the future volume-to-capacity relationships and service level characteristics at each study intersection. The significance of the potential impacts of the Project at each key intersection was then evaluated using the following traffic impact criteria.

7.1 Impact Criteria and Thresholds

Per the City of Costa Mesa guidelines, LOS D is the minimum acceptable level of service that should be maintained during the weekday AM peak hour and weekday PM peak hour. Per the City's criteria, the Project is considered to have a significant impact if the following criteria are met:

For Signalized Intersections:

- the ICU value under "with Project" conditions is 0.91 or greater (LOS E or F), and
- the ICU increase attributable to the Project is 0.01 or greater.

7.2 Traffic Impact Analysis Scenarios

The following scenarios are those for which volume/capacity calculations have been performed at the four (4) key intersections for existing plus project and near-term (Year 2017) traffic conditions:

A. Existing Traffic Conditions;
B. Existing Plus Project Traffic Conditions;
C. Scenario (B) with Improvements, if necessary;
D. Near-Term (Year 2017) Cumulative Traffic Conditions,
E. Near-Term (Year 2017) Cumulative plus Project Traffic Conditions;
F. Scenario (E) with Improvements, if necessary;

8.0 PEAK HOUR INTERSECTION CAPACITY ANALYSIS

8.1 Existing Plus Project Analysis

Table 8-1 summarizes the peak hour Level of Service results at the four (4) key study intersections for existing plus project traffic conditions. The first column (1) of ICU/LOS values and HCM/LOS values in *Table 8-1* presents a summary of existing AM and PM peak hour traffic conditions (which were also presented in *Table 3-3*). The second column (2) lists existing plus project traffic conditions. The third column (3) shows the increase in ICU value and/or HCM value due to the added peak hour Project trips and indicates whether the traffic associated with the Project will have a significant impact based on the LOS standards and significant impact criteria defined in this report. The fourth column (4) of *Table 8-1* indicates the anticipated operating conditions with implementation of improvements planned and/or recommended to mitigate Project traffic and/or achieve an acceptable Level of Service.

8.1.1 *Existing Plus Project Traffic Conditions*

Review of Columns 2 and 3 of *Table 8-1* indicates that traffic associated with the proposed Project will not significantly impact any of the four (4) key study intersections, when compared to the LOS standards and significant impact criteria specified in this report. All four (4) key study intersections currently operate and are forecast to continue to operate at acceptable service levels during the AM and PM peak hours with the addition of Project generated traffic to existing traffic.

Appendix B presents the existing plus project ICU/LOS and HCM/LOS calculations for the four (4) key study intersections.

TABLE 8-1

EXISTING PLUS PROJECT PEAK HOUR INTERSECTION CAPACITY ANALYSIS

Key Intersection		Time Period	(1) Existing Traffic Conditions		(2) Existing Plus Project Traffic Conditions		(3) Significant Impact		(4) Existing Plus Project Plus Mitigation	
			ICU/ HCM	LOS	ICU/ HCM	LOS	Increase	Yes/ No	ICU/ HCM	LOS
1.	Bristol Street at	AM	0.330	A	0.349	A	0.019	No	--	--
	Anton Boulevard	PM	0.613	B	0.628	B	0.015	No	--	--
2.	Avenue of the Arts at	AM	0.364	A	0.390	A	0.026	No	--	--
	Anton Boulevard	PM	0.463	A	0.500	A	0.037	No	--	--
3.	Marriott/580 Anton Dwy at	AM	10.4 s/v	B	17.0 s/v	C	6.6 s/v	No	--	--
	Anton Boulevard	PM	12.4 s/v	B	22.3 s/v	C	9.9 s/v	No	--	--
4.	Sakioka Drive at	AM	0.309	A	0.310	A	0.001	No	--	--
	Anton Boulevard	PM	0.420	A	0.426	A	0.006	No	--	--

Notes:

- **Bold ICU/LOS** or **HCM/LOS** values indicate adverse service levels based on the City's LOS standards.
- s/v = seconds per vehicle

8.2 Year 2017 Traffic Conditions

Table 8-2 summarizes the peak hour Level of Service results at the four (4) key study intersections for the Year 2017 horizon year. The first column (1) of ICU/LOS and HCM/LOS values in *Table 8-2* presents a summary of existing AM and PM peak hour traffic conditions. The second column (2) lists projected cumulative traffic conditions (existing plus ambient plus related projects traffic) based on existing intersection geometry, but without any traffic generated from the proposed Project. The third column (3) presents forecast Year 2017 near-term traffic conditions with the addition of Project traffic. The fourth column (4) shows the increase in ICU value and/or HCM value due to the added peak hour Project trips and indicates whether the traffic associated with the Project will have a significant impact based on the LOS standards and significant impact criteria defined in this report. The fifth column (5) of *Table 8-2* indicates the anticipated operating conditions with implementation of improvements planned and/or recommended to mitigate Project traffic and/or achieve an acceptable Level of Service.

8.2.1 *Year 2017 Cumulative Traffic Conditions*

An analysis of future (Year 2017) cumulative traffic conditions indicates that the addition of ambient traffic growth and related projects traffic will not adversely impact any of the four (4) key study intersections. All of the four (4) key study intersections are forecast to operate at acceptable service levels during the AM and PM peak hours under Year 2017 Cumulative traffic conditions.

8.2.2 *Year 2017 Cumulative Plus Project Conditions*

Review of Columns 3 and 4 of *Table 8-2* indicates that traffic associated with the proposed Project will not significantly impact any of the four (4) key study intersections. All of the key study intersections are forecast to operate at acceptable service levels during the AM and PM peak hours with the addition of Project generated traffic to Year 2017 Cumulative traffic conditions.

Appendix B presents the near-term ICU/LOS and HCM/LOS calculations for the four (4) key study intersections.

TABLE 8-2

YEAR 2017 PEAK HOUR INTERSECTION CAPACITY ANALYSIS

Key Intersection	Time Period	(1) Existing Traffic Conditions		(2) Year 2017 Cumulative Traffic Conditions		(3) Year 2017 Cumulative Plus Project Traffic Conditions		(4) Significant Impact		(5) Year 2017 Cumulative Plus Project Plus Mitigation	
		ICU/ HCM	LOS	ICU/ HCM	LOS	ICU/ HCM	LOS	Increase	Yes/ No	ICU/ HCM	LOS
1. Bristol Street at Anton Boulevard	AM	0.330	A	0.356	A	0.374	A	0.018	No	--	--
	PM	0.613	B	0.648	B	0.664	B	0.016	No	--	--
2. Avenue of the Arts at Anton Boulevard	AM	0.364	A	0.375	A	0.401	A	0.026	No	--	--
	PM	0.463	A	0.489	A	0.526	A	0.037	No	--	--
3. Marriott/580 Anton Dwy at Anton Boulevard	AM	10.4 s/v	B	11.4 s/v	B	19.8 s/v	C	8.4 s/v	No	--	--
	PM	12.4 s/v	B	15.2 s/v	C	33.2 s/v	D	18.0 s/v	No	--	--
4. Sakioka Drive at Anton Boulevard	AM	0.309	A	0.319	A	0.320	A	0.001	No	--	--
	PM	0.420	A	0.430	A	0.438	A	0.008	No	--	--

Notes:

- **Bold ICU/LOS** or **HCM/LOS** values indicate adverse service levels based on the City's LOS standards.
- s/v = seconds per vehicle

8.3 Traffic Signal Warrant Analysis

Traffic signal warrant analyses have been conducted at the key unsignalized study intersections identified in this report. This assessment is made on the basis of signal warrant criteria adopted by Caltrans. For this study, the need for signalization is assessed on the basis of the peak-hour traffic signal warrant. Warrant #3 described in the *California Manual on Uniform Traffic Control Devices (MUTCD).* Warrant #3 has two parts: 1) Part A evaluates peak hour vehicle delay for traffic on the minor street approach with the highest delay and 2) Part B evaluates peak-hour traffic volumes on the major and minor streets. This method provides an indication of whether peak-hour traffic conditions or peak-hour traffic volume levels are, or would be, sufficient to justify installation of a traffic signal. Other traffic signal warrants are available; however, they cannot be checked under future conditions (Without Project/Build-out without and with Project) because they rely on data for which forecasts are not available (such as accidents, pedestrian volume, and four- or eight-hour vehicle volumes).

The decision to install a traffic signal should not be based purely on the warrants alone. Instead, the installation of a signal should be considered and further analysis performed when one or more of the warrants are satisfied. Additionally, engineering judgment is exercised on a case-by-case basis to evaluate the effect a traffic signal will have on certain types of accidents and traffic conditions at the subject intersection as well as at adjacent intersections.

8.3.1 *Year 2017 Cumulative Plus Project Traffic Conditions*

The results of the peak-hour traffic signal warrant analysis for Year 2017 Cumulative Plus Project traffic conditions are summarized in *Table 8-3*. The results indicate that the one (1) key unsignalized intersection will not have future traffic conditions that would exceed the volume thresholds of Warrant #3, Part A and/or Part B for the AM and/or PM peak hour.

The Year 2017 Cumulative Plus Project Traffic Conditions Traffic Signal Warrant Analysis worksheets are contained in ***Appendix C***.

TABLE 8-3

YEAR 2017 CUMULATIVE PLUS PROJECT SIGNAL WARRANT SUMMARY[7]

Key Intersection		Time Period	Year 2017 With Project Traffic Conditions	
			Part A of Warrant 3 Satisfied?	Part B of Warrant 3 Satisfied?
3.	Marriott/580 Anton Dwy at Anton Boulevard	AM	No	No
		PM	No	No

Notes:

- Signal Warrant checks based on Warrant 3, Part A - Peak-Hour Delay Warrant and Part B - Peak-Hour Volume Warrant contained in the *California MUTCD.*

[7] *Appendix C* contains the Traffic Signal Warrant Analysis worksheets for the key unsignalized impacted study intersections.

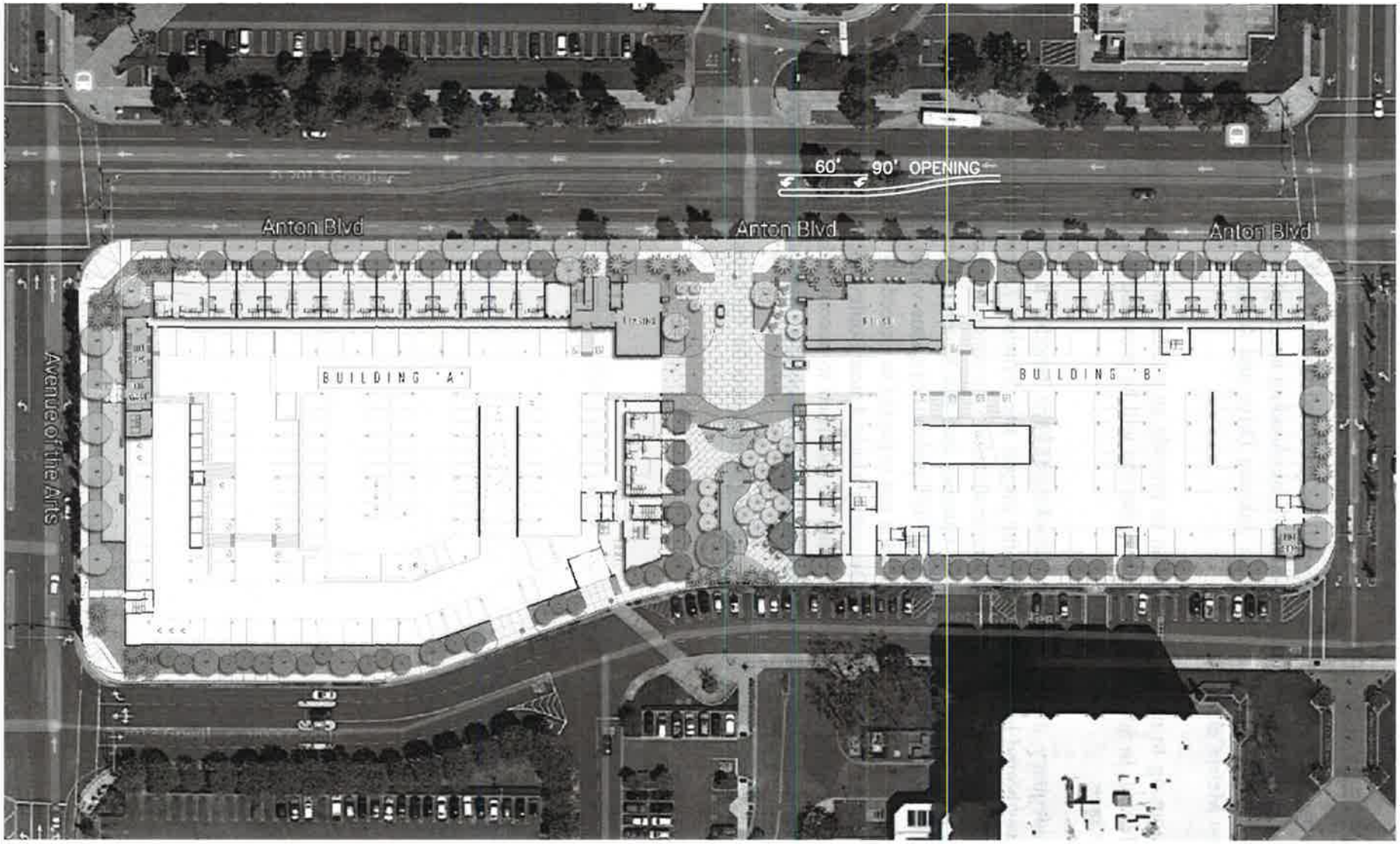
9.0 SITE ACCESS EVALUATION

Primary vehicular access to the project site will be provided via one full access driveway along Anton Boulevard, with secondary access and emergency/loading access provided via two driveways along the internal east-west roadway, between Sakioka Drive and Avenue of the Arts, within the current South Coast MetroCenter site.

The Project is proposing to modify the median to provide an exclusive left-turn lane into the site along Anton Boulevard. In addition, egress from the site will be provided via an exclusive left-turn lane and right-turn lane.

To validate the adequacy of the proposed stacking/storage lengths, a queuing evaluation was prepared for the westbound left-turn lane into the project site. Synchro 7.0 software was utilized in this operations/queuing assessment. The queuing evaluation was conducted based on projected Year 2017 plus project peak hour driveway traffic volumes and the Synchro SimTraffic methodology. Based on SimTraffic, which calculates a critical (95th percentile) queue value in number of feet, the AM peak hour and PM peak hour queue length is not expected to exceed 39 feet for the westbound left-turn inbound movement at the Project Driveway along Anton Boulevard. To provide adequate storage, the Project recommends that the median be modified to accommodate a 60 foot left-turn pocket. ***Figure 9-1*** presents the concept plan detailing the lane configuration at the project driveway.

Appendix D contains the Synchro SimTraffic queuing worksheets for the key segment.



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SOURCE: GOOGLE

LINSCOTT LAW & GREENSPAN engineers

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SCALE: 1"=100'

FIGURE 9-1

ANTON BLVD CONCEPTUAL STRIPING PLAN

SYMPHONY APARTMENTS, COSTA MESA

10.0 TRAFFIC IMPACT FEES

Pursuant to the requirements of the City of Costa Mesa, Traffic Impact Fees will be required of the proposed Project. The purpose of the fee is to fund the necessary transportation/circulation improvements that are related to incremental traffic impacts on the City's circulation system by new development. The "City-wide" traffic impact fee, based on Average Daily Trips Ends (ADT), for all new development is assessed based on an incremental basis.

The trip making potential for the existing entitled restaurant would result in 1,336 daily trips when compared to the proposed development with a total of 2,770 daily trips results in a net difference of 1,434 daily trips. Review of ***Table 10-1*** indicates that applying the net daily trips to the trip fee would result in a Project contribution of $259,554. However, the precise fee will be determined upon issuance of Project building permits.

TABLE 10-1
TRAFFIC IMPACT FEES

Average Daily Trip Ends (ADT)	Traffic Impact Fee Rate ($ per ADT)	Project ADT	Project Traffic Impact Fee
▪ 0 to 25 ADT	$0 / ADT	0 ADT	$0.00
▪ 26 to 50 ADT for incremental trips exceeding 25 ADT	$50 / ADT	0 ADT	$0.00
▪ 51 to 75 ADT for incremental trips exceeding 50ADT	$75 / ADT	0 ADT	$0.00
▪ 75 to 100 ADT for incremental trips exceeding 75 ADT	$100 / ADT	0 ADT	$0.00
▪ > 100 ADT for incremental trips exceeding 100 ADT	$181 / ADT	1,434 ADT	$259,554
	TOTALS	**1,434 ADT**	**$259,554**

Notes:

- ADT = Average Daily Traffic

11.0 CONGESTION MANAGEMENT PROGRAM (CMP) COMPLIANCE ASSESSMENT

This analysis is consistent with the requirements and procedures outlined in the current *Orange County Congestion Management Program (CMP).* The CMP requires that a traffic impact analysis be conducted for any project generating 2,400 or more daily trips, or 1,600 or more daily trips for projects that directly access the CMP Highway System (HS). As noted in *Section 5.0* of this traffic study, the proposed Project is forecast to generate approximately 2,770 daily trip-ends and thus meets the criteria requiring a CMP TIA.

The CMPHS includes specific roadways, which include State Highways and Super Streets, which are now known as Smart Streets. Therefore, the CMP TIA analysis requirements relate to the potential impacts only on the specified CMPHS, which in this case is Harbor Boulevard (Bristol Street is not a part of the CMPHS). As described in the "Radius of Development Influence" section of the CMP TIA, the study area (i.e. CMP intersections) is recommended to be defined by the CMP links which have a project impact of three percent, or more, of their daily LOS "E" capacity.

Table 11-1 summarizes the Project percentage impact CMP analysis for two (2) key roadway segments in the vicinity of the proposed Project along Harbor Boulevard. Column one (1) of *Table 11-1* shows the CMP LOS "E" Capacity for each roadway segment, column two (2) shows the Project ADT for each roadway segment, column three (3) shows the Project ADT LOS "E" capacity percentages for each roadway segment and column (4) shows whether or not added project traffic meets or exceeds the "three percent" limit.

Review of *Table 11-1* shows that the three percent limit is not exceeded on any of the two (2) key roadway segments; therefore a CMP TIA analysis is not required for the proposed Project and any further analysis beyond that which is summarized in *Section 8.0* of this report is not necessary.

TABLE 11-1
PROJECT PERCENTAGE RADIUS OF INFLUENCE CMP ANALYSIS

Roadway Segment	(1) CMP LOS "E" Capacity	(2) Project ADT	(3) Percentage (3) = (2) ÷ (1)	(4) Radius of Influence (Yes/No)
1. Harbor Boulevard north of Sunflower Avenue	56,300	55	0.10%	No
2. Harbor Boulevard south of Sunflower Avenue	56,300	83	0.15%	No

12.0 SUMMARY OF FINDINGS AND CONCLUSIONS

- ***Existing Site*** – The project site is located south of Anton Boulevard east of Avenue of the Arts and west of Sakioka Drive in the City of Costa Mesa, California. The subject property is currently developed with a two restaurant buildings totaling 16,500 square feet (SF), which are currently vacant. Access to the Project site is now provided via a right-turn in only along Anton Boulevard and two full access unsignalized driveways along the internal east-west roadway, between Sakioka Drive and Avenue of the Arts.

- ***Project Description*** – The proposed Project includes the development of a 393 unit apartment complex, consisting of 239 one-bedroom units and 154 two-bedroom units with a three-level parking structure consisting of 731 spaces. In addition, the Project is proposing to have 4,104 SF of retail which will be used primarily by tenants and adjacent South Coast MetroCenter development.

- ***Study Scope*** – The following four (4) key study intersections were selected for detailed peak hour level of service analyses under Existing Traffic Conditions, Existing Plus Project Traffic Conditions, Year 2017 Cumulative Traffic Conditions, and Year 2017 Cumulative plus Project:

  Key Study Intersections

  1. Bristol Street at Anton Boulevard
  2. Avenue of the Arts at Anton Boulevard
  3. Marriott/580 Anton Driveway at Anton Boulevard
  4. Sakioka Drive at Anton Boulevard

- ***Existing Traffic Conditions*** – All of the key study intersections currently operate at acceptable service levels during the AM and PM peak hour.

- ***Project Trip Generation*** – The proposed Project is forecast to generate 2,770 daily trips, with 204 trips (41 inbound, 163 outbound) produced in the AM peak hour and 257 trips (163 inbound, 94 outbound) produced in the PM peak hour.

- ***Existing Plus Project Traffic Conditions*** – All of the key study intersections are forecast to operate at acceptable service levels during the AM and PM peak hours with the addition of Project generated traffic to existing traffic.

- ***Year 2017 Cumulative Traffic Conditions Plus Project*** – All of the key study intersections are forecast to operate at acceptable service levels during the AM and PM peak hours with the addition of Project generated traffic to Year 2017 cumulative traffic.

- ***Site Access*** – Primary vehicular access to the project site will be provided via one full access driveway along Anton Boulevard, with secondary access and emergency/loading access provided via two driveways along the internal east-west roadway, between Sakioka Drive and Avenue of the Arts, within the current South Coast MetroCenter site.

The Project is proposing to modify the median to provide an exclusive left-turn lane into the site along Anton Boulevard. In addition, egress from the site will be provided via an exclusive left-turn lane and right-turn lane.

- ***Project Traffic Impact Fees*** - Based on the City's Traffic Impact Fee Program, the proposed Project can be expected to pay a total of $259,554 in Traffic Impact Fees.

- ***CMP Compliance Assessment*** – No significant impacts are expected to occur on the Orange County Congestion Management Program roadway network due to the development and full occupancy of the proposed Project.

APPENDIX A

EXISTING TRAFFIC COUNT DATA

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-1126-001 **Day:** Tuesday

City: Costa Mesa **Date:** 5/20/2014

AM

NS/EW Streets:	Bristol St			Bristol St			Anton Blvd			Anton Blvd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 2	NT 4	NR 1	SL 2	ST 4	SR 1	EL 1	ET 1	ER 1	WL 3	WT 1	WR 1	TOTAL
7:00 AM	8	170	162	23	382	1	0	1	0	63	7	13	830
7:15 AM	9	203	168	25	455	2	1	0	0	75	2	22	962
7:30 AM	14	184	168	35	482	2	5	3	2	126	0	16	1037
7:45 AM	17	243	207	43	440	2	0	4	1	81	2	16	1056
8:00 AM	14	259	235	41	361	5	3	4	1	96	2	15	1036
8:15 AM	13	296	246	63	371	3	2	1	0	55	1	21	1072
8:30 AM	14	259	268	56	342	6	1	2	0	96	4	12	1060
8:45 AM	16	253	244	64	320	4	0	4	2	68	5	33	1013
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	105	1867	1698	350	3153	25	12	19	6	660	23	148	8066
APPROACH %'s :	2.86%	50.87%	46.27%	9.92%	89.37%	0.71%	32.43%	51.35%	16.22%	79.42%	2.77%	17.81%	
PEAK HR START TIME :	745 AM												TOTAL
PEAK HR VOL :	58	1057	956	203	1514	16	6	11	2	328	9	64	4224
PEAK HR FACTOR :		0.933			0.893			0.594			0.887		0.985

UTURNS

NB	SB	EB	WB
1	0	0	
0	0	1	
0	0	2	
0	0	0	
2	0	1	
0	0	1	
1	0	0	
2	1	0	

NB	SB	EB	WB
6	1	5	0

CONTROL : Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-1126-001 **Day:** Tuesday

City: Costa Mesa **Date:** 5/20/2014

PM

NS/EW Streets:	Bristol St			Bristol St			Anton Blvd			Anton Blvd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	2	4	1	2	4	1	1	1	1	3	1	1	
4:00 PM	72	478	107	23	333	8	13	4	39	157	4	44	1282
4:15 PM	56	458	113	26	381	8	18	4	34	135	8	44	1285
4:30 PM	85	521	112	29	339	10	10	7	28	147	12	68	1368
4:45 PM	72	539	153	26	310	12	15	7	21	160	6	52	1373
5:00 PM	85	577	145	33	330	16	18	7	26	216	22	93	1568
5:15 PM	94	558	184	41	359	16	24	7	33	207	24	68	1615
5:30 PM	88	590	188	32	366	22	18	8	22	204	25	67	1630
5:45 PM	112	509	210	46	381	15	26	11	23	152	21	57	1563
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	664	4230	1212	256	2799	107	142	55	226	1378	122	493	11684
APPROACH %'s :	10.87%	69.28%	19.85%	8.10%	88.52%	3.38%	33.57%	13.00%	53.43%	69.14%	6.12%	24.74%	
PEAK HR START TIME :	500 PM												TOTAL
PEAK HR VOL :	379	2234	727	152	1436	69	86	33	104	779	92	285	6376
PEAK HR FACTOR :	0.964			0.937			0.871			0.873			0.978

UTURNS

	NB	SB	EB	WB
4:00 PM	1	2	0	
4:15 PM	1	0	1	
4:30 PM	1	0	2	
4:45 PM	1	0	2	
5:00 PM	2	0	2	
5:15 PM	0	0	3	
5:30 PM	1	0	6	
5:45 PM	0	1	9	
TOTAL	NB	SB	EB	WB
	7	3	25	0

CONTROL : Signalized

ITM Peak Hour Summary

Prepared by:

NDS

National Data & Surveying Services

Bristol St and Anton Blvd , Costa Mesa

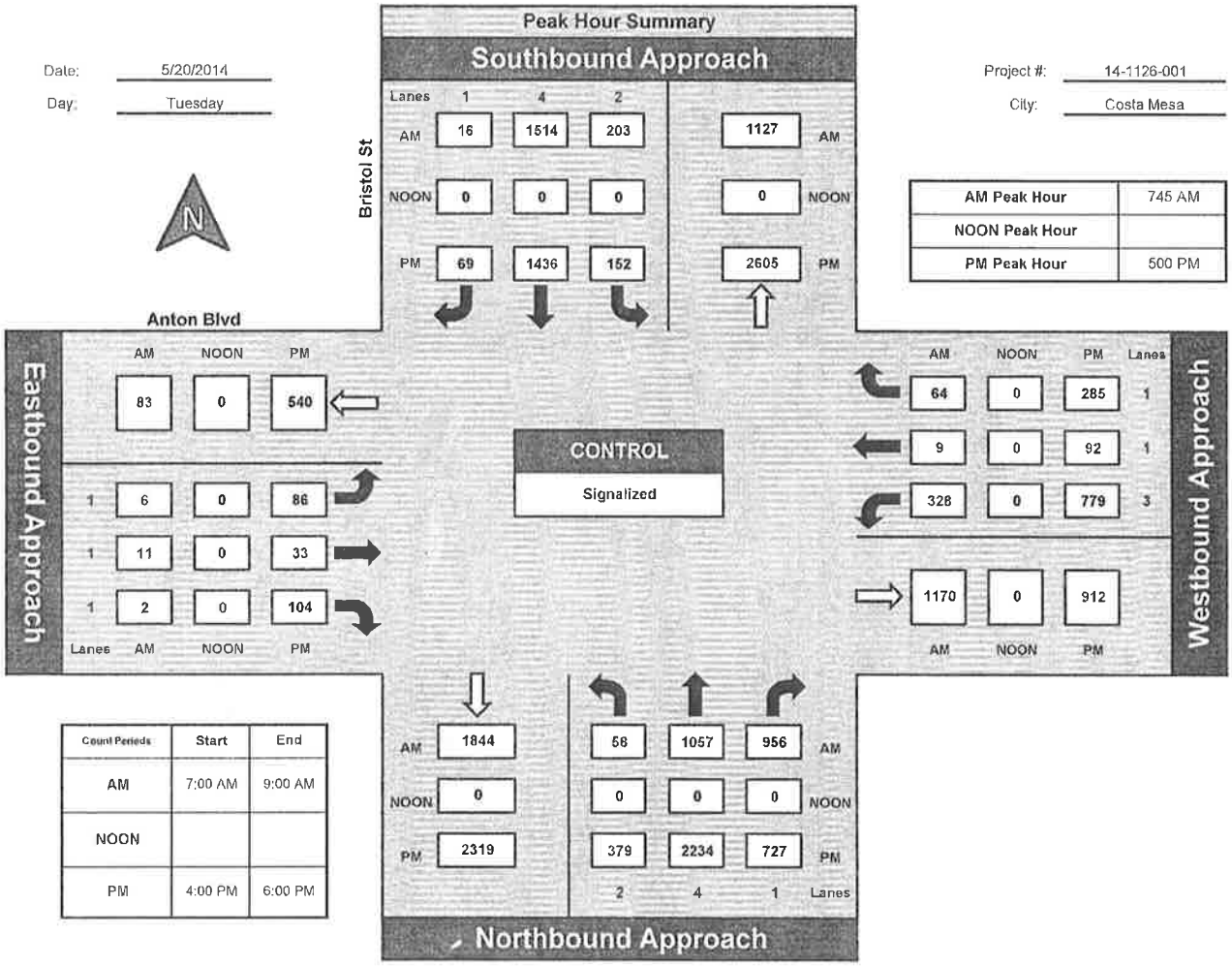
Date: 5/20/2014

Day: Tuesday

Project #: 14-1126-001

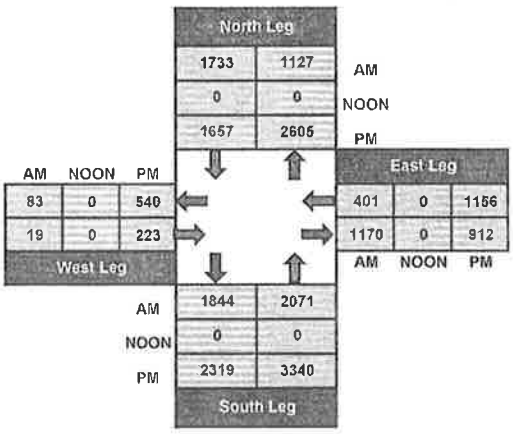
City: Costa Mesa

AM Peak Hour	745 AM
NOON Peak Hour	
PM Peak Hour	500 PM



Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON		
PM	4:00 PM	6:00 PM

Total Ins & Outs



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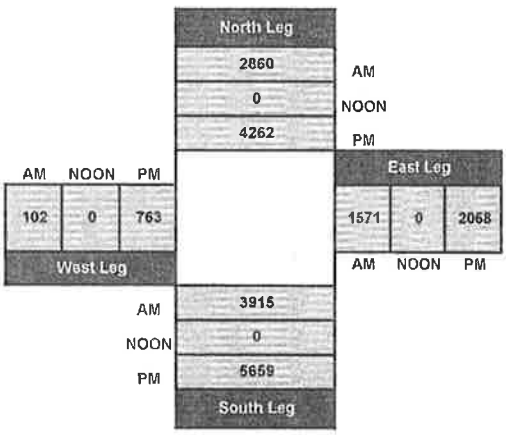


Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-1126-002

Day: Tuesday

City: Costa Mesa

Date: 5/20/2014

AM

NS/EW Streets:	Avenue of the Stars			Avenue of the Stars			Anton Blvd			Anton Blvd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 0	EL 1	ET 3	ER 0	WL 1	WT 3	WR 0	TOTAL
7:00 AM	21	28	25	2	10	12	15	82	34	4	48	3	284
7:15 AM	33	23	25	2	6	10	10	112	38	5	70	3	337
7:30 AM	35	21	43	3	16	16	7	78	46	4	85	5	359
7:45 AM	28	25	42	1	12	9	15	100	67	12	84	2	397
8:00 AM	26	27	38	3	13	11	9	130	63	12	57	4	393
8:15 AM	33	35	40	1	18	13	8	118	93	9	58	3	429
8:30 AM	41	30	48	6	15	21	19	134	82	8	63	6	473
8:45 AM	48	34	47	2	7	28	15	133	85	10	46	4	459
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	265	223	308	20	97	120	98	887	508	64	511	30	3131
APPROACH %'s :	33.29%	28.02%	38.69%	8.44%	40.93%	50.63%	6.56%	59.41%	34.03%	10.58%	84.46%	4.96%	
PEAK HR START TIME :	800 AM												TOTAL
PEAK HR VOL :	148	126	173	12	53	73	51	515	323	39	224	17	1754
PEAK HR FACTOR :	0.866			0.821			0.946			0.909			0.927

UTURNS

NB	SB	EB	WB
0	0	0	
1	1	3	
0	1	1	
0	1	0	
0	1	1	
0	1	1	
0	0	1	
2	0	0	
NB	SB	EB	WB
3	5	7	0

CONTROL : Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-1126-002

Day: Tuesday

City: Costa Mesa

Date: 5/20/2014

PM

NS/EW Streets:	Avenue of the Stars			Avenue of the Stars			Anton Blvd			Anton Blvd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	1	1	2	0	1	3	0	1	3	0	
4:00 PM	58	83	59	3	7	18	21	87	24	3	56	2	421
4:15 PM	59	90	55	8	7	20	13	97	19	3	60	2	433
4:30 PM	60	90	32	3	10	23	19	93	21	3	73	3	430
4:45 PM	71	89	54	11	10	25	34	101	28	6	74	6	509
5:00 PM	96	125	69	4	11	33	24	125	41	6	99	11	644
5:15 PM	73	117	56	9	6	45	35	143	36	14	102	8	644
5:30 PM	87	124	70	6	16	44	29	133	27	9	100	7	652
5:45 PM	71	109	49	6	15	28	33	123	39	12	70	11	566
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	575	827	444	50	82	236	208	902	235	56	634	50	4299
APPROACH %'s :	31.15%	44.80%	24.05%	13.59%	22.28%	64.13%	15.46%	67.06%	17.47%	7.57%	85.68%	6.76%	
PEAK HR START TIME :	500 PM												TOTAL
PEAK HR VOL :	327	475	244	25	48	150	121	524	143	41	371	37	2506
PEAK HR FACTOR :	0.902			0.845			0.921			0.905			0.961

UTURNS

	NB	SB	EB	WB
4:00 PM	0	1	1	1
4:15 PM	0	2	0	0
4:30 PM	0	0	2	1
4:45 PM	1	6	2	0
5:00 PM	0	1	1	0
5:15 PM	0	3	5	2
5:30 PM	0	3	3	1
5:45 PM	0	1	1	0
	NB	SB	EB	WB
	1	17	15	5

CONTROL : Signalized

ITM Peak Hour Summary

Prepared by:

NDS

National Data & Surveying Services

Avenue of the Stars and Anton Blvd , Costa Mesa

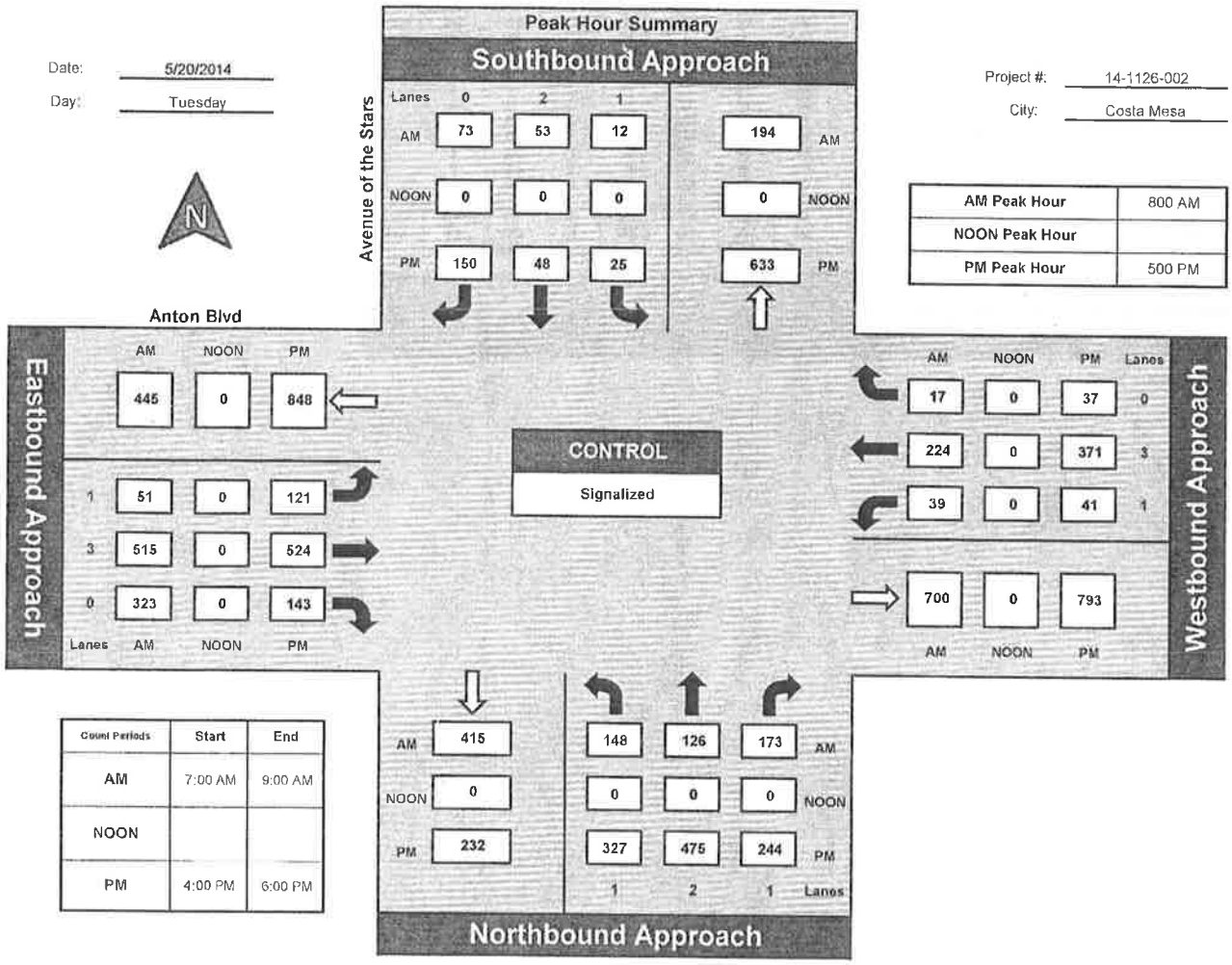
Date: 5/20/2014

Day: Tuesday

Project #: 14-1126-002

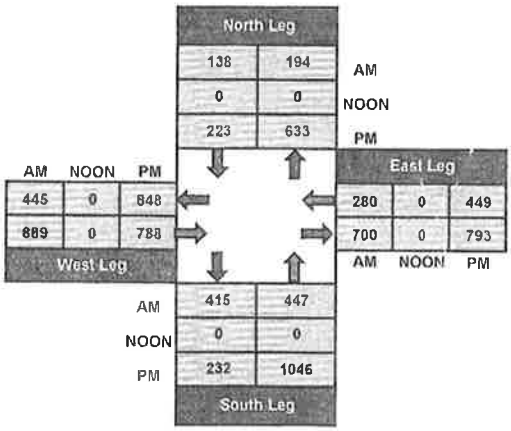
City: Costa Mesa

AM Peak Hour	800 AM
NOON Peak Hour	
PM Peak Hour	500 PM

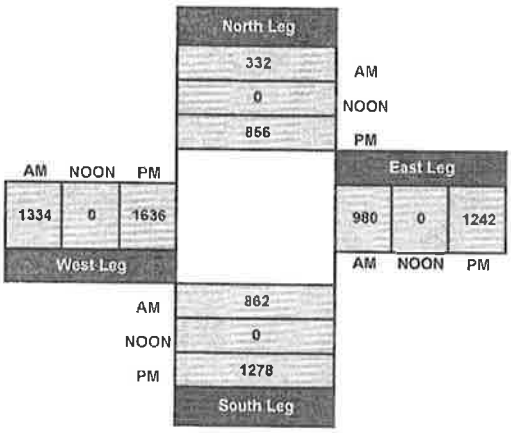


Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON		
PM	4:00 PM	6:00 PM

Total Ins & Outs



Total Volume Per Leg



Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-1126-003 **Day:** Tuesday

City: Costa Mesa **Date:** 5/20/2014

AM

NS/EW Streets:	Costa Mesa Marriott Dwy			Costa Mesa Marriott Dwy			Anton Blvd			Anton Blvd				UTURNS			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND							
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL	NB	SB	EB	WB
LANES:	0	0	0	0	1	0	0.5	1	2	0	2	0					
7:00 AM				2		0	3	103			54	6	168			1	
7:15 AM				0		8	4	124			68	2	206			0	
7:30 AM				2		1	3	120			97	5	228			1	
7:45 AM				2		2	6	123			88	3	224			0	
8:00 AM				3		1	3	164			74	1	246			0	
8:15 AM				1		2	5	142			60	4	214			1	
8:30 AM				0		3	6	180			75	8	272			1	
8:45 AM				3		5	4	174			58	4	248			0	
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL	NB	SB	EB	WB
TOTAL VOLUMES :	0	0	0	13	0	22	34	1130	0	0	574	33	1806	0	0	4	0
APPROACH %'s :	#DIV/0!	#DIV/0!	#DIV/0!	37.14%	0.00%	62.86%	2.92%	97.08%	0.00%	0.00%	94.56%	5.44%					
PEAK HR START TIME :	600 AM												TOTAL				
PEAK HR VOL :	0	0	0	7	0	11	18	660	0	0	267	17	980				
PEAK HR FACTOR :	0.000			0.563			0.911			0.855			0.901				

CONTROL : 1-Way Stop (SB)

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-1126-003

Day: Tuesday

City: Costa Mesa

Date: 5/20/2014

PM

NS/EW Streets:	Costa Mesa Marriott Dwy			Costa Mesa Marriott Dwy			Anton Blvd			Anton Blvd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 0	NT 0	NR 0	SL 0	ST 1	SR 0	EL 0.5	ET 1	ER 2	WL 0	WT 2	WR 0	TOTAL
4:00 PM				2		1	6	139			62	2	212
4:15 PM				0		3	3	143			57	7	213
4:30 PM				4		7	12	113			70	8	214
4:45 PM				4		6	5	149			76	9	249
5:00 PM				4		8	8	181			110	5	316
5:15 PM				6		9	10	199			112	9	345
5:30 PM				5		8	10	189			102	14	328
5:45 PM				3		1	8	169			94	5	280
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	0	0	0	28	0	43	62	1282	0	0	683	59	2157
APPROACH %'s :	#DIV/0!	#DIV/0!	#DIV/0!	39.44%	0.00%	60.56%	4.61%	95.39%	0.00%	0.00%	92.05%	7.95%	
PEAK HR START TIME :	500 PM												TOTAL
PEAK HR VOL :	0	0	0	18	0	26	36	738	0	0	418	33	1269
PEAK HR FACTOR :		0.000			0.733			0.926			0.932		0.920

UTURNS

NB	SB	EB	WB
		0	
		2	
		2	
		1	
		3	
		0	
		3	
		2	
NB	SB	EB	WB
0	0	13	0

CONTROL : 1-Way Stop (SB)

ITM Peak Hour Summary

Prepared by:

NDS

National Data & Surveying Services

Costa Mesa Marriott Dwy and Anton Blvd , Costa Mesa

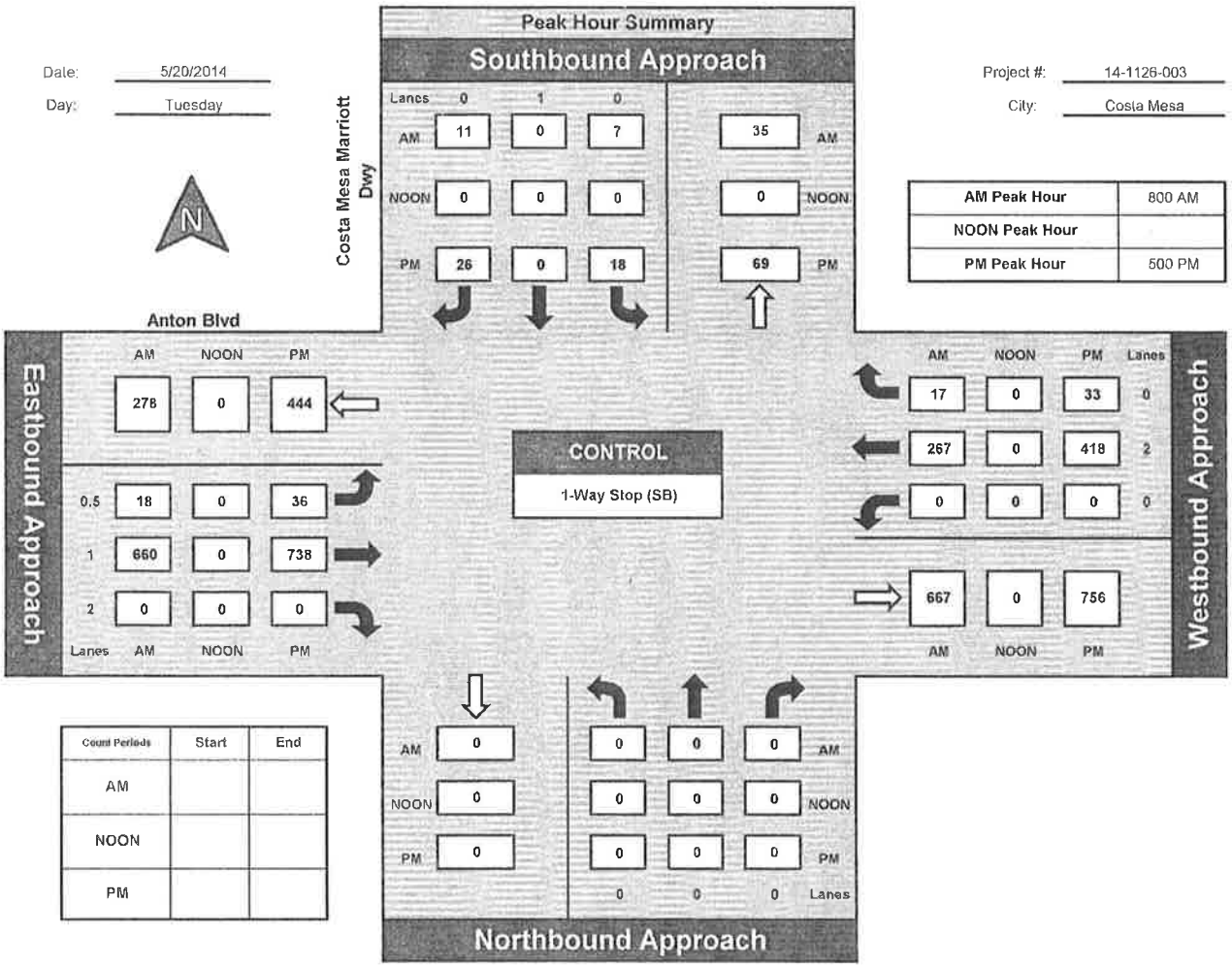
Date: 5/20/2014

Day: Tuesday

Project #: 14-1126-003

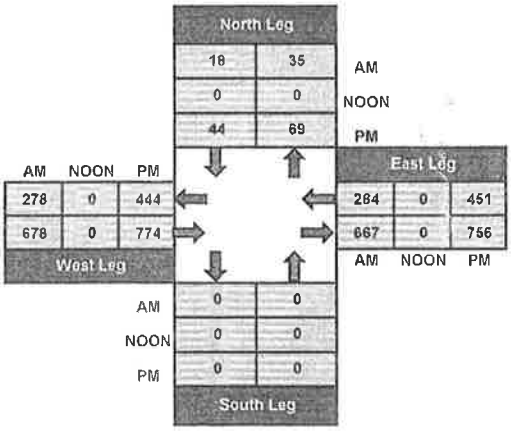
City: Costa Mesa

AM Peak Hour	800 AM
NOON Peak Hour	
PM Peak Hour	500 PM

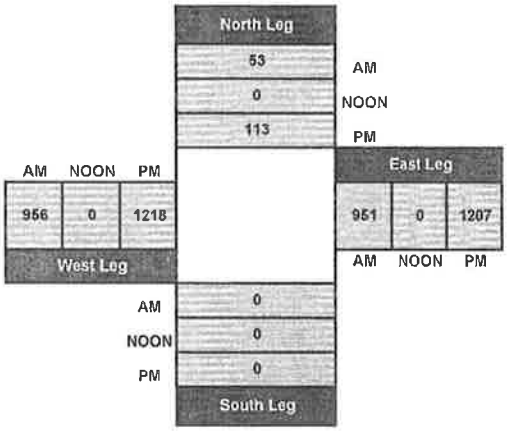


Count Periods	Start	End
AM		
NOON		
PM		

Total Ins & Outs



Total Volume Per Leg



Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-1126-004

Day: Tuesday

City: Costa Mesa

Date: 5/20/2014

AM

NS/EW Streets:	Sakioka Dr			Sakioka Dr			Anton Blvd			Anton Blvd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 1	EL 1	ET 2	ER 1	WL 1	WT 2	WR 0	TOTAL
7:00 AM	6	6	11	15	13	21	9	61	27	12	25	1	207
7:15 AM	13	6	16	30	10	26	11	86	40	15	36	2	291
7:30 AM	12	6	16	24	7	44	8	82	33	28	36	2	298
7:45 AM	10	4	9	20	21	40	7	89	42	16	40	0	298
8:00 AM	16	4	12	23	20	35	17	85	51	15	24	2	304
8:15 AM	12	3	11	15	20	27	6	74	65	21	34	3	291
8:30 AM	13	5	15	20	17	31	10	102	63	27	31	1	335
8:45 AM	12	4	13	16	14	29	9	109	51	27	29	0	313
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	94	38	103	163	122	253	77	688	372	161	255	11	2337
APPROACH %'s :	40.00%	16.17%	43.83%	30.30%	22.68%	47.03%	6.77%	60.51%	32.72%	37.70%	59.72%	2.58%	
PEAK HR START TIME :	[illegible]												TOTAL
PEAK HR VOL :	53	16	51	74	71	122	42	370	230	90	118	6	1243
PEAK HR FACTOR :	0.909			0.856			0.917			0.907			0.928

UTURNS

NB	SB	EB	WB
	1	1	2
	1	1	3
	0	0	4
	1	0	5
	1	0	3
	1	0	1
	0	0	6
	0	0	5
NB	SB	EB	WB
0	5	2	29

CONTROL : Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-1126-004 **Day:** Tuesday

City: Costa Mesa **Date:** 5/20/2014

PM

NS/EW Streets:	Sakioka Dr			Sakioka Dr			Anton Blvd			Anton Blvd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	1	1	2	1	1	2	1	1	2	0	
4:00 PM	31	16	37	2	8	15	63	79	5	8	21	8	293
4:15 PM	21	13	24	2	7	19	51	75	5	8	24	4	253
4:30 PM	27	23	26	11	5	28	76	56	5	8	27	0	292
4:45 PM	20	23	36	7	6	24	80	64	5	4	35	6	310
5:00 PM	39	44	61	2	8	21	76	102	6	14	59	17	449
5:15 PM	36	26	58	6	13	26	72	116	6	12	51	8	430
5:30 PM	24	26	61	3	9	28	82	108	9	13	61	12	436
5:45 PM	20	22	38	4	6	28	76	97	3	19	50	7	370
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	218	193	341	37	62	189	576	697	44	86	328	62	2833
APPROACH %'s :	28.99%	25.66%	45.35%	12.85%	21.53%	65.63%	43.74%	52.92%	3.34%	18.07%	68.91%	13.03%	
PEAK HR START TIME :	500 PM												TOTAL
PEAK HR VOL :	119	118	218	15	36	103	306	423	24	58	221	44	1685
PEAK HR FACTOR :		0.790			0.856			0.946			0.897		0.938

UTURNS			
NB	SB	EB	WB
1	1	1	1
0	0	0	3
0	2	1	2
0	0	1	2
0	1	0	1
0	0	0	0
1	0	0	2
0	0	0	1
NB	SB	EB	WB
2	4	3	12

CONTROL : Signalized

ITM Peak Hour Summary

Prepared by:

NDS

National Data & Surveying Services

Sakioka Dr and Anton Blvd , Costa Mesa

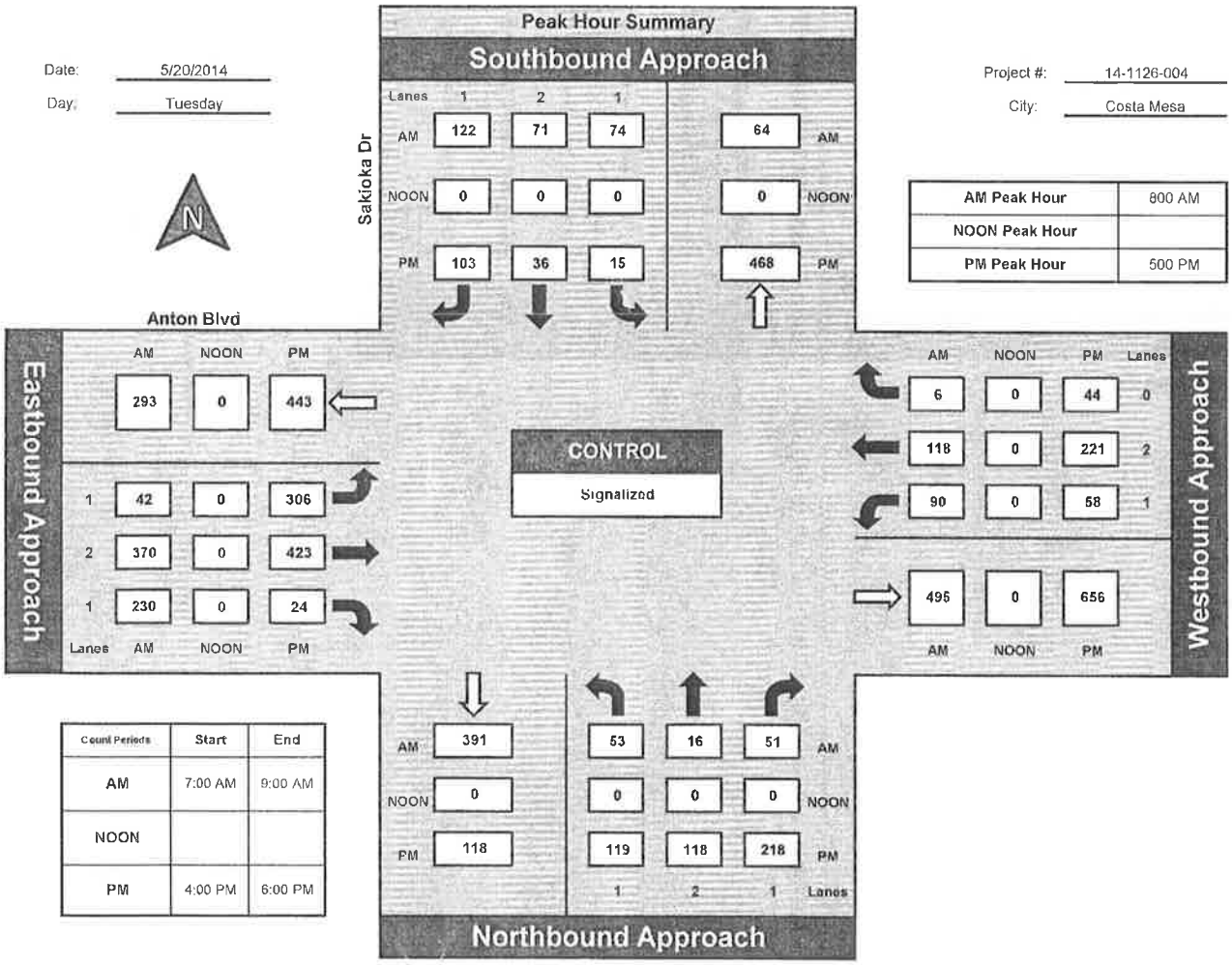
Date: 5/20/2014

Day: Tuesday

Project #: 14-1126-004

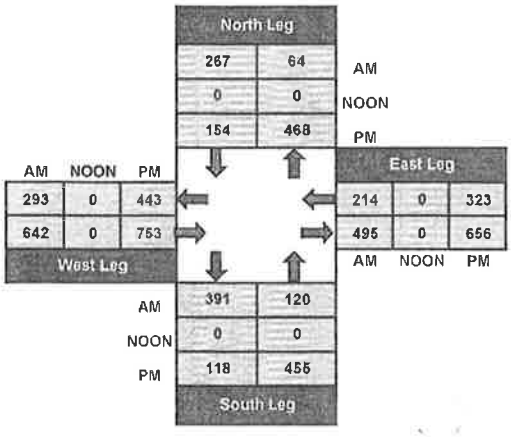
City: Costa Mesa

AM Peak Hour	800 AM
NOON Peak Hour	
PM Peak Hour	500 PM

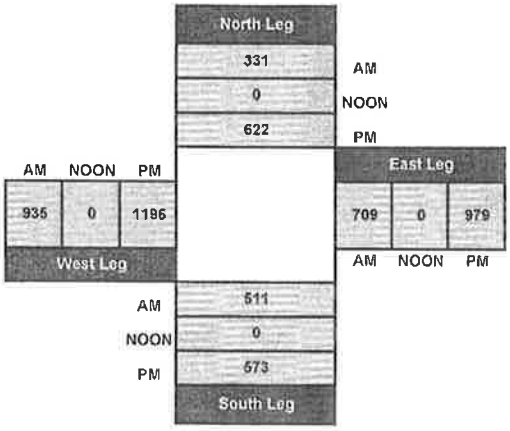


Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON		
PM	4:00 PM	6:00 PM

Total Ins & Outs



Total Volume Per Leg



APPENDIX B

INTERSECTION LEVEL OF SERVICE CALCULATION WORKSHEETS

APPENDIX B-I

EXISTING TRAFFIC CONDITIONS

AM Existing
Symphony Towers, Costa Mesa

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

Intersection #1 Bristol Street at Anton Boulevard

Cycle (sec):	100	Critical Vol./Cap.(X):	0.330
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	34	Level Of Service:	A

Street Name:	Bristol Street						Anton Boulevard					
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			Split Phase			Split Phase		
Rights:	Ignore			Include			Ovl			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:	2 0	4 0	1	2 0	4 0	1	1 0	1 0	1	3 0	1 0	1
Volume Module:												
Base Vol:	58	1057	956	203	1514	16	6	11	2	328	9	64
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:	58	1057	956	203	1514	16	6	11	2	328	9	64
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:	58	1057	956	203	1514	16	6	11	2	328	9	64
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	58	1057	0	203	1514	16	6	11	2	328	9	64
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	58	1057	0	203	1514	16	6	11	2	328	9	64
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	58	1057	0	203	1514	16	6	11	2	328	9	64
OvlAdjVol:									0			0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
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:	2.00	4.00	1.00	2.00	4.00	1.00	1.00	1.00	1.00	3.00	1.00	1.00
Final Sat.:	3200	6400	1600	3200	6400	1600	1600	1600	1600	4800	1600	1600
Capacity Analysis Module:												
Vol/Sat:	0.02	0.17	0.00	0.06	0.24	0.01	0.00	0.01	0.00	0.07	0.01	0.04
OvlAdjV/S:									0.00			0.00
Crit Moves:	****				****			****		****		

AM Existing
Symphony Towers, Costa Mesa

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

Intersection #2 Avenue of the Arts at Anton Boulevard

Cycle (sec):	100	Critical Vol./Cap.(X):	0.364
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	29	Level Of Service:	A

Street Name:	Avenue of the Arts						Anton Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Prot+Permit			Prot+Permit		
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	1 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	148	126	173	12	53	73	51	515	323	39	224	17
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:	148	126	173	12	53	73	51	515	323	39	224	17
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:	148	126	173	12	53	73	51	515	323	39	224	17
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:	148	126	173	12	53	73	51	515	323	39	224	17
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	148	126	173	12	53	73	51	515	323	39	224	17
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:	148	126	173	12	53	73	51	515	323	39	224	17
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
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	1.00	1.00	1.00	2.00	1.00	1.00	2.79	0.21
Final Sat.:	1600	3200	1600	1600	1600	1600	1600	3200	1600	1600	4461	339
Capacity Analysis Module:												
Vol/Sat:	0.09	0.04	0.11	0.01	0.03	0.05	0.03	0.16	0.20	0.02	0.05	0.05
Crit Moves:	****					****			****	****		

AM Existing
Symphony Towers, Costa Mesa

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

Intersection #3 Driveway at Anton Boulevard

Average Delay (sec/veh): 0.3 Worst Case Level Of Service: B[10.9]

Street Name:	Driveway						Anton Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 0 0			0 0 1! 0 0			1 0 2 0 0			0 0 2 1 0		
Volume Module:												
Base Vol:	0	0	0	7	0	11	18	660	0	0	267	17
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	0	0	7	0	11	18	660	0	0	267	17
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:	0	0	0	7	0	11	18	660	0	0	267	17
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	0	0	7	0	11	18	660	0	0	267	17
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	7	0	11	18	660	0	0	267	17
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.8	6.5	6.9	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	642	972	98	284	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	412	255	946	1290	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	407	251	946	1290	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.02	0.00	0.01	0.01	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.8	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	625	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	0.1	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	10.9	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	B	*	*	*	*	*	*	*
ApproachDel:	xxxxxx				10.9		xxxxxx			xxxxxx		
ApproachLOS:		*			B			*			*	

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

AM Existing
Symphony Towers, Costa Mesa

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

Intersection #4 Sakioka Drive at Anton Boulevard

Cycle (sec):	100	Critical Vol./Cap.(X):	0.309
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	27	Level Of Service:	A

Street Name:	Sakioka Drive						Anton Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Prot+Permit			Prot+Permit		
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	2 0	1	1 0	1 1	0
Volume Module:												
Base Vol:	53	16	51	74	71	122	42	370	230	90	118	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:	53	16	51	74	71	122	42	370	230	90	118	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:	53	16	51	74	71	122	42	370	230	90	118	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:	53	16	51	74	71	122	42	370	230	90	118	6
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	53	16	51	74	71	122	42	370	230	90	118	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:	53	16	51	74	71	122	42	370	230	90	118	6
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
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	2.00	1.00	1.00	1.90	0.10
Final Sat.:	1600	3200	1600	1600	3200	1600	1600	3200	1600	1600	3045	155
Capacity Analysis Module:												
Vol/Sat:	0.03	0.01	0.03	0.05	0.02	0.08	0.03	0.12	0.14	0.06	0.04	0.04
Crit Moves:	****					****			****	****		

PM Existing
Symphony Towers, Costa Mesa

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

Intersection #1 Bristol Street at Anton Boulevard

Cycle (sec):	100	Critical Vol./Cap.(X):	0.613
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	59	Level Of Service:	B

Street Name:	Bristol Street						Anton Boulevard					
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			Split Phase			Split Phase		
Rights:	Ignore			Include			Ovl			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:	2 0	4 0	1	2 0	4 0	1	1 0	1 0	1	3 0	1 0	1
Volume Module:												
Base Vol:	379	2234	727	152	1436	69	86	33	104	779	92	285
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:	379	2234	727	152	1436	69	86	33	104	779	92	285
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:	379	2234	727	152	1436	69	86	33	104	779	92	285
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	379	2234	0	152	1436	69	86	33	104	779	92	285
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	379	2234	0	152	1436	69	86	33	104	779	92	285
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	379	2234	0	152	1436	69	86	33	104	779	92	285
OvlAdjVol:									0			209
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
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:	2.00	4.00	1.00	2.00	4.00	1.00	1.00	1.00	1.00	3.00	1.00	1.00
Final Sat.:	3200	6400	1600	3200	6400	1600	1600	1600	1600	4800	1600	1600
Capacity Analysis Module:												
Vol/Sat:	0.12	0.35	0.00	0.05	0.22	0.04	0.05	0.02	0.07	0.16	0.06	0.18
OvlAdjV/S:									0.00			0.13
Crit Moves:		****			****			****			****	

PM Existing
Symphony Towers, Costa Mesa

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

Intersection #2 Avenue of the Arts at Anton Boulevard

Cycle (sec):	100	Critical Vol./Cap.(X):	0.463
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	35	Level Of Service:	A

Street Name:	Avenue of the Arts						Anton Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Permitted			Permitted			Prot+Permit			Prot+Permit		
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	1	1 0	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	327	475	244	25	48	150	121	524	143	41	371	37
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:	327	475	244	25	48	150	121	524	143	41	371	37
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:	327	475	244	25	48	150	121	524	143	41	371	37
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:	327	475	244	25	48	150	121	524	143	41	371	37
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	327	475	244	25	48	150	121	524	143	41	371	37
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:	327	475	244	25	48	150	121	524	143	41	371	37
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
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	1.00	1.00	1.00	2.36	0.64	1.00	2.73	0.27
Final Sat.:	1600	3200	1600	1600	1600	1600	1600	3771	1029	1600	4365	435
Capacity Analysis Module:												
Vol/Sat:	0.20	0.15	0.15	0.02	0.03	0.09	0.08	0.14	0.14	0.03	0.09	0.08
Crit Moves:	****					****		****		****		

PM Existing
Symphony Towers, Costa Mesa

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

Intersection #3 Driveway at Anton Boulevard

Average Delay (sec/veh): 0.7 Worst Case Level Of Service: B[13.4]

Street Name:	Driveway						Anton Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 0 0			0 0 1! 0 0			1 0 2 0 0			0 0 2 1 0		
Volume Module:												
Base Vol:	0	0	0	18	0	26	36	738	0	0	418	33
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	0	0	18	0	26	36	738	0	0	418	33
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:	0	0	0	18	0	26	36	738	0	0	418	33
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	0	0	18	0	26	36	738	0	0	418	33
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	18	0	26	36	738	0	0	418	33
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.8	6.5	6.9	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	876	1245	156	451	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	292	176	868	1120	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	285	170	868	1120	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.06	0.00	0.03	0.03	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	473	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	0.3	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	13.4	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	B	*	*	*	*	*	*	*
ApproachDel:	xxxxxx				13.4		xxxxxx			xxxxxx		
ApproachLOS:		*			B			*			*	

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

PM Existing
Symphony Towers, Costa Mesa

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

Intersection #4 Sakioka Drive at Anton Boulevard

Cycle (sec):	100	Critical Vol./Cap.(X):	0.420
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	32	Level Of Service:	A

Street Name:	Sakioka Drive						Anton Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Prot+Permit			Prot+Permit		
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	2 0	1	1 0	1 1	0
Volume Module:												
Base Vol:	119	118	218	15	36	103	306	423	24	58	221	44
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:	119	118	218	15	36	103	306	423	24	58	221	44
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:	119	118	218	15	36	103	306	423	24	58	221	44
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:	119	118	218	15	36	103	306	423	24	58	221	44
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	119	118	218	15	36	103	306	423	24	58	221	44
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:	119	118	218	15	36	103	306	423	24	58	221	44
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
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	2.00	1.00	1.00	1.67	0.33
Final Sat.:	1600	3200	1600	1600	3200	1600	1600	3200	1600	1600	2669	531
Capacity Analysis Module:												
Vol/Sat:	0.07	0.04	0.14	0.01	0.01	0.06	0.19	0.13	0.02	0.04	0.08	0.08
Crit Moves:			****	****			****				****	

APPENDIX B-II

EXISTING WITH PROJECT TRAFFIC CONDITIONS

AM Existing Plus Project
Symphony Towers, Costa Mesa

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

Intersection #1 Bristol Street at Anton Boulevard

Cycle (sec):	100	Critical Vol./Cap.(X):	0.349
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	35	Level Of Service:	A

Street Name:	Bristol Street						Anton Boulevard					
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			Split Phase			Split Phase		
Rights:	Ignore			Include			Ovl			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:	2 0	4 0	1	2 0	4 0	1	1 0	1 0	1	3 0	1 0	1
Volume Module:												
Base Vol:	58	1057	979	207	1514	16	6	11	2	418	9	80
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:	58	1057	979	207	1514	16	6	11	2	418	9	80
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:	58	1057	979	207	1514	16	6	11	2	418	9	80
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	58	1057	0	207	1514	16	6	11	2	418	9	80
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	58	1057	0	207	1514	16	6	11	2	418	9	80
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	58	1057	0	207	1514	16	6	11	2	418	9	80
OvlAdjVol:									0			0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
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:	2.00	4.00	1.00	2.00	4.00	1.00	1.00	1.00	1.00	3.00	1.00	1.00
Final Sat.:	3200	6400	1600	3200	6400	1600	1600	1600	1600	4800	1600	1600
Capacity Analysis Module:												
Vol/Sat:	0.02	0.17	0.00	0.06	0.24	0.01	0.00	0.01	0.00	0.09	0.01	0.05
OvlAdjV/S:									0.00			0.00
Crit Moves:	****				****			****		****		

AM Existing Plus Project
Symphony Towers, Costa Mesa

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

Intersection #2 Avenue of the Arts at Anton Boulevard

Cycle (sec):	100	Critical Vol./Cap.(X):	0.390
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	30	Level Of Service:	A

Street Name:	Avenue of the Arts						Anton Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Prot+Permit			Prot+Permit		
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	1 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	189	131	173	13	53	73	51	542	323	39	289	17
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:	189	131	173	13	53	73	51	542	323	39	289	17
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:	189	131	173	13	53	73	51	542	323	39	289	17
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:	189	131	173	13	53	73	51	542	323	39	289	17
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	189	131	173	13	53	73	51	542	323	39	289	17
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:	189	131	173	13	53	73	51	542	323	39	289	17
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
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	1.00	1.00	1.00	2.00	1.00	1.00	2.83	0.17
Final Sat.:	1600	3200	1600	1600	1600	1600	1600	3200	1600	1600	4533	267
Capacity Analysis Module:												
Vol/Sat:	0.12	0.04	0.11	0.01	0.03	0.05	0.03	0.17	0.20	0.02	0.06	0.06
Crit Moves:	****					****			****	****		

AM Existing Plus Project
Symphony Towers, Costa Mesa

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

****

Intersection #3 Driveway at Anton Boulevard

****

Average Delay (sec/veh): 2.1 Worst Case Level Of Service: C[17.1]

****

Street Name:	Driveway						Anton Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	1 0 0 0 1			0 0 1! 0 0			1 0 2 0 1			1 0 2 1 0		
Volume Module:												
Base Vol:	65	0	52	7	0	11	18	660	28	5	267	17
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:	65	0	52	7	0	11	18	660	28	5	267	17
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:	65	0	52	7	0	11	18	660	28	5	267	17
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:	65	0	52	7	0	11	18	660	28	5	267	17
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	65	0	52	7	0	11	18	660	28	5	267	17
Critical Gap Module:												
Critical Gp:	7.5	xxxx	6.9	7.5	6.5	6.9	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	xxxx	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	795	xxxx	330	652	1010	98	284	xxxx	xxxxx	688	xxxx	xxxxx
Potent Cap.:	282	xxxx	672	357	242	946	1290	xxxx	xxxxx	916	xxxx	xxxxx
Move Cap.:	274	xxxx	672	325	237	946	1290	xxxx	xxxxx	916	xxxx	xxxxx
Volume/Cap:	0.24	xxxx	0.08	0.02	0.00	0.01	0.01	xxxx	xxxx	0.01	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	0.9	xxxx	0.3	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	0.0	xxxx	xxxxx
Control Del:	22.1	xxxx	10.8	xxxxx	xxxx	xxxxx	7.8	xxxx	xxxxx	9.0	xxxx	xxxxx
LOS by Move:	C	*	B	*	*	*	A	*	*	A	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	543	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	0.1	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	11.9	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	B	*	*	*	*	*	*	*
ApproachDel:		17.1			11.9			xxxxxx			xxxxxx	
ApproachLOS:		C			B			*			*	

****

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

****

AM Existing Plus Project
Symphony Towers, Costa Mesa

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

Intersection #4 Sakioka Drive at Anton Boulevard

Cycle (sec):	100	Critical Vol./Cap.(X):	0.310
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	27	Level Of Service:	A

Street Name:	Sakioka Drive						Anton Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Prot+Permit			Prot+Permit		
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	2 0	1	1 0	1 1	0
Volume Module:												
Base Vol:	53	16	51	74	71	123	45	419	230	90	122	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:	53	16	51	74	71	123	45	419	230	90	122	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:	53	16	51	74	71	123	45	419	230	90	122	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:	53	16	51	74	71	123	45	419	230	90	122	6
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	53	16	51	74	71	123	45	419	230	90	122	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:	53	16	51	74	71	123	45	419	230	90	122	6
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
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	2.00	1.00	1.00	1.91	0.09
Final Sat.:	1600	3200	1600	1600	3200	1600	1600	3200	1600	1600	3050	150
Capacity Analysis Module:												
Vol/Sat:	0.03	0.01	0.03	0.05	0.02	0.08	0.03	0.13	0.14	0.06	0.04	0.04
Crit Moves:	****					****			****	****		

PM Existing Plus Project
Symphony Towers, Costa Mesa

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

Intersection #1 Bristol Street at Anton Boulevard

Cycle (sec):	100	Critical Vol./Cap.(X):	0.628
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	61	Level Of Service:	B

Street Name:	Bristol Street						Anton Boulevard					
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			Split Phase			Split Phase		
Rights:	Ignore			Include			Ovl			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:	2 0	4 0	1	2 0	4 0	1	1 0	1 0	1	3 0	1 0	1
Volume Module:												
Base Vol:	379	2234	817	168	1436	69	86	33	104	831	92	294
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:	379	2234	817	168	1436	69	86	33	104	831	92	294
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:	379	2234	817	168	1436	69	86	33	104	831	92	294
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	379	2234	0	168	1436	69	86	33	104	831	92	294
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	379	2234	0	168	1436	69	86	33	104	831	92	294
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	379	2234	0	168	1436	69	86	33	104	831	92	294
OvlAdjVol:									0			210
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
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:	2.00	4.00	1.00	2.00	4.00	1.00	1.00	1.00	1.00	3.00	1.00	1.00
Final Sat.:	3200	6400	1600	3200	6400	1600	1600	1600	1600	4800	1600	1600
Capacity Analysis Module:												
Vol/Sat:	0.12	0.35	0.00	0.05	0.22	0.04	0.05	0.02	0.07	0.17	0.06	0.18
OvlAdjV/S:									0.00			0.13
Crit Moves:		****		****			****			****		

PM Existing Plus Project
Symphony Towers, Costa Mesa

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

Intersection #2 Avenue of the Arts at Anton Boulevard

Cycle (sec):	100	Critical Vol./Cap.(X):	0.500
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	37	Level Of Service:	A

Street Name:	Avenue of the Arts						Anton Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Prot+Permit			Prot+Permit		
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	1 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	351	478	244	30	48	150	121	630	143	41	409	37
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:	351	478	244	30	48	150	121	630	143	41	409	37
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:	351	478	244	30	48	150	121	630	143	41	409	37
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:	351	478	244	30	48	150	121	630	143	41	409	37
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	351	478	244	30	48	150	121	630	143	41	409	37
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:	351	478	244	30	48	150	121	630	143	41	409	37
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
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	1.00	1.00	1.00	2.45	0.55	1.00	2.75	0.25
Final Sat.:	1600	3200	1600	1600	1600	1600	1600	3912	888	1600	4402	398
Capacity Analysis Module:												
Vol/Sat:	0.22	0.15	0.15	0.02	0.03	0.09	0.08	0.16	0.16	0.03	0.09	0.09
Crit Moves:	****					****		****		****		

PM Existing Plus Project
Symphony Towers, Costa Mesa

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

Intersection #3 Driveway at Anton Boulevard

Average Delay (sec/veh): 1.8 Worst Case Level Of Service: C[20.9]

Street Name:	Driveway						Anton Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	1 0 0 0 1			0 0 1! 0 0			1 0 2 0 1			1 0 2 1 0		
Volume Module:												
Base Vol:	38	0	30	18	0	26	36	738	111	20	418	33
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:	38	0	30	18	0	26	36	738	111	20	418	33
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:	38	0	30	18	0	26	36	738	111	20	418	33
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:	38	0	30	18	0	26	36	738	111	20	418	33
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	38	0	30	18	0	26	36	738	111	20	418	33
Critical Gap Module:												
Critical Gp:	7.5	xxxx	6.9	7.5	6.5	6.9	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	xxxx	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	989	xxxx	369	916	1396	156	451	xxxx	xxxxx	849	xxxx	xxxxx
Potent Cap.:	204	xxxx	634	231	143	868	1120	xxxx	xxxxx	798	xxxx	xxxxx
Move Cap.:	189	xxxx	634	210	135	868	1120	xxxx	xxxxx	798	xxxx	xxxxx
Volume/Cap:	0.20	xxxx	0.05	0.09	0.00	0.03	0.03	xxxx	xxxx	0.03	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	0.7	xxxx	0.1	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	0.1	xxxx	xxxxx
Control Del:	28.7	xxxx	11.0	xxxxx	xxxx	xxxxx	8.3	xxxx	xxxxx	9.6	xxxx	xxxxx
LOS by Move:	D	*	B	*	*	*	A	*	*	A	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	381	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	0.4	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	15.7	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	C	*	*	*	*	*	*	*
ApproachDel:		20.9			15.7			xxxxxx			xxxxxx	
ApproachLOS:		C			C			*			*	

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

AM Cum
Symphony Towers, Costa Mesa

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

Intersection #1 Bristol Street at Anton Boulevard

Cycle (sec):	100	Critical Vol./Cap.(X):	0.356
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	35	Level Of Service:	A

Street Name:	Bristol Street						Anton Boulevard					
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			Split Phase			Split Phase		
Rights:	Ignore			Include			Ovl			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:	2 0	4 0	1	2 0	4 0	1	1 0	1 0	1	3 0	1 0	1
Volume Module:												
Base Vol:	60	1123	997	211	1593	16	6	11	2	389	9	75
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:	60	1123	997	211	1593	16	6	11	2	389	9	75
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:	60	1123	997	211	1593	16	6	11	2	389	9	75
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	60	1123	0	211	1593	16	6	11	2	389	9	75
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	60	1123	0	211	1593	16	6	11	2	389	9	75
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	60	1123	0	211	1593	16	6	11	2	389	9	75
OvlAdjVol:									0			0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
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:	2.00	4.00	1.00	2.00	4.00	1.00	1.00	1.00	1.00	3.00	1.00	1.00
Final Sat.:	3200	6400	1600	3200	6400	1600	1600	1600	1600	4800	1600	1600
Capacity Analysis Module:												
Vol/Sat:	0.02	0.18	0.00	0.07	0.25	0.01	0.00	0.01	0.00	0.08	0.01	0.05
OvlAdjV/S:									0.00			0.00
Crit Moves:	****				****			****		****		

AM Cum
Symphony Towers, Costa Mesa

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

Intersection #2 Avenue of the Arts at Anton Boulevard

Cycle (sec):	100	Critical Vol./Cap.(X):	0.375
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	30	Level Of Service:	A

Street Name:	Avenue of the Arts						Anton Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Prot+Permit			Prot+Permit		
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	1 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	152	130	182	12	55	75	53	544	333	40	291	18
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:	152	130	182	12	55	75	53	544	333	40	291	18
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:	152	130	182	12	55	75	53	544	333	40	291	18
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:	152	130	182	12	55	75	53	544	333	40	291	18
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	152	130	182	12	55	75	53	544	333	40	291	18
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:	152	130	182	12	55	75	53	544	333	40	291	18
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
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	1.00	1.00	1.00	2.00	1.00	1.00	2.83	0.17
Final Sat.:	1600	3200	1600	1600	1600	1600	1600	3200	1600	1600	4520	280
Capacity Analysis Module:												
Vol/Sat:	0.10	0.04	0.11	0.01	0.03	0.05	0.03	0.17	0.21	0.03	0.06	0.06
Crit Moves:	****					****			****	****		

AM Cum
Symphony Towers, Costa Mesa

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

Intersection #3 Driveway at Anton Boulevard

Average Delay (sec/veh): 1.4 Worst Case Level Of Service: B[12.1]

Street Name:	Driveway						Anton Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 0 0			0 0 1! 0 0			1 0 2 0 0			0 0 2 1 0		
Volume Module:												
Base Vol:	0	0	0	37	0	71	38	680	0	0	275	21
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	0	0	37	0	71	38	680	0	0	275	21
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:	0	0	0	37	0	71	38	680	0	0	275	21
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	0	0	37	0	71	38	680	0	0	275	21
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	37	0	71	38	680	0	0	275	21
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.8	6.5	6.9	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	702	1042	102	296	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	377	232	940	1277	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	369	225	940	1277	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.10	0.00	0.08	0.03	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.9	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	614	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	0.6	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	12.1	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	B	*	*	*	*	*	*	*
ApproachDel:	xxxxxx				12.1		xxxxxx			xxxxxx		
ApproachLOS:	*				B		*			*		

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

AM Cum
Symphony Towers, Costa Mesa

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

Intersection #4 Sakioka Drive at Anton Boulevard

Cycle (sec):	100	Critical Vol./Cap.(X):	0.319
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	27	Level Of Service:	A

Street Name:	Sakioka Drive						Anton Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Prot+Permit			Prot+Permit		
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	2 0	1	1 0	1 1	0
Volume Module:												
Base Vol:	55	16	53	76	73	126	45	409	237	93	124	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:	55	16	53	76	73	126	45	409	237	93	124	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:	55	16	53	76	73	126	45	409	237	93	124	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:	55	16	53	76	73	126	45	409	237	93	124	6
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	55	16	53	76	73	126	45	409	237	93	124	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:	55	16	53	76	73	126	45	409	237	93	124	6
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
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	2.00	1.00	1.00	1.91	0.09
Final Sat.:	1600	3200	1600	1600	3200	1600	1600	3200	1600	1600	3052	148
Capacity Analysis Module:												
Vol/Sat:	0.03	0.01	0.03	0.05	0.02	0.08	0.03	0.13	0.15	0.06	0.04	0.04
Crit Moves:	****					****			****	****		

PM Cum
Symphony Towers, Costa Mesa

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

Intersection #1 Bristol Street at Anton Boulevard

Cycle (sec):	100	Critical Vol./Cap.(X):	0.648
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	65	Level Of Service:	B

Street Name:	Bristol Street						Anton Boulevard					
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			Split Phase			Split Phase		
Rights:	Ignore			Include			Ovl			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:	2 0	4 0	1	2 0	4 0	1	1 0	1 0	1	3 0	1 0	1
Volume Module:												
Base Vol:	390	2357	799	166	1519	71	89	34	107	829	95	299
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:	390	2357	799	166	1519	71	89	34	107	829	95	299
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:	390	2357	799	166	1519	71	89	34	107	829	95	299
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	390	2357	0	166	1519	71	89	34	107	829	95	299
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	390	2357	0	166	1519	71	89	34	107	829	95	299
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	390	2357	0	166	1519	71	89	34	107	829	95	299
OvlAdjVol:									0			216
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
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:	2.00	4.00	1.00	2.00	4.00	1.00	1.00	1.00	1.00	3.00	1.00	1.00
Final Sat.:	3200	6400	1600	3200	6400	1600	1600	1600	1600	4800	1600	1600
Capacity Analysis Module:												
Vol/Sat:	0.12	0.37	0.00	0.05	0.24	0.04	0.06	0.02	0.07	0.17	0.06	0.19
OvlAdjV/S:									0.00			0.14
Crit Moves:		****			****			****			****	

PM Cum
Symphony Towers, Costa Mesa

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

Intersection #2 Avenue of the Arts at Anton Boulevard

Cycle (sec):	100	Critical Vol./Cap.(X):	0.489
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	36	Level Of Service:	A

Street Name:	Avenue of the Arts						Anton Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Prot+Permit			Prot+Permit		
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	1 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	337	489	269	26	49	155	125	599	147	42	414	38
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:	337	489	269	26	49	155	125	599	147	42	414	38
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:	337	489	269	26	49	155	125	599	147	42	414	38
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:	337	489	269	26	49	155	125	599	147	42	414	38
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	337	489	269	26	49	155	125	599	147	42	414	38
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:	337	489	269	26	49	155	125	599	147	42	414	38
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
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	1.00	1.00	1.00	2.41	0.59	1.00	2.75	0.25
Final Sat.:	1600	3200	1600	1600	1600	1600	1600	3854	946	1600	4396	404
Capacity Analysis Module:												
Vol/Sat:	0.21	0.15	0.17	0.02	0.03	0.10	0.08	0.16	0.16	0.03	0.09	0.09
Crit Moves:	****					****		****		****		

PM Cum
Symphony Towers, Costa Mesa

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

****

Intersection #3 Driveway at Anton Boulevard

****

Average Delay (sec/veh): 1.8 Worst Case Level Of Service: C[17.1]

****

Street Name:	Driveway									Anton Boulevard								
Approach:	North Bound					South Bound				East Bound					West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign					Stop Sign					Uncontrolled					Uncontrolled				
Rights:	Include					Include					Include					Include				
Lanes:	0	0	0	0	0	0	0	1!	0	0	1	0	2	0	0	0	0	2	1	0
Volume Module:																				
Base Vol:	0		0		0	35		0		59	114		760		0	0		431		45
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		0		0	35		0		59	114		760		0	0		431		45
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:	0		0		0	35		0		59	114		760		0	0		431		45
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		0		0	35		0		59	114		760		0	0		431		45
Reduct Vol:	0		0		0	0		0		0	0		0		0	0		0		0
FinalVolume:	0		0		0	35		0		59	114		760		0	0		431		45
Critical Gap Module:																				
Critical Gp:	xxxxx	xxxx		xxxxx		6.8		6.5		6.9	4.1		xxxx		xxxxx	xxxxx		xxxx		xxxxx
FollowUpTim:	xxxxx	xxxx		xxxxx		3.5		4.0		3.3	2.2		xxxx		xxxxx	xxxxx		xxxx		xxxxx
Capacity Module:																				
Cnflict Vol:	xxxx	xxxx		xxxxx		1062		1442		166	476		xxxx		xxxxx	xxxx		xxxx		xxxxx
Potent Cap.:	xxxx	xxxx		xxxxx		222		134		855	1097		xxxx		xxxxx	xxxx		xxxx		xxxxx
Move Cap.:	xxxx	xxxx		xxxxx		204		120		855	1097		xxxx		xxxxx	xxxx		xxxx		xxxxx
Volume/Cap:	xxxx	xxxx		xxxx		0.17		0.00		0.07	0.10		xxxx		xxxx	xxxx		xxxx		xxxx
Level Of Service Module:																				
2Way95thQ:	xxxx	xxxx		xxxxx		xxxx		xxxx		xxxxx	0.3		xxxx		xxxxx	xxxx		xxxx		xxxxx
Control Del:	xxxxx	xxxx		xxxxx		xxxxx		xxxx		xxxxx	8.7		xxxx		xxxxx	xxxxx		xxxx		xxxxx
LOS by Move:	*	*		*		*		*		*	A		*		*	*		*		*
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx		xxxxx		xxxx		391		xxxxx	xxxx		xxxx		xxxxx	xxxx		xxxx		xxxxx
SharedQueue:	xxxxx	xxxx		xxxxx		xxxxx		0.9		xxxxx	xxxxx		xxxx		xxxxx	xxxxx		xxxx		xxxxx
Shrd ConDel:	xxxxx	xxxx		xxxxx		xxxxx		17.1		xxxxx	xxxxx		xxxx		xxxxx	xxxxx		xxxx		xxxxx
Shared LOS:	*	*		*		*		C		*	*		*		*	*		*		*
ApproachDel:	xxxxxx							17.1			xxxxxx					xxxxxx				
ApproachLOS:		*						C					*					*		

****

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

****

PM Cum
Symphony Towers, Costa Mesa

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

Intersection #4 Sakioka Drive at Anton Boulevard

Cycle (sec):	100	Critical Vol./Cap.(X):	0.430
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	33	Level Of Service:	A

Street Name:	Sakioka Drive						Anton Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Permitted			Permitted			Prot+Permit			Prot+Permit		
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	2 0	1	1 0	1 1	0
Volume Module:												
Base Vol:	123	122	225	15	37	108	316	451	25	60	237	45
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:	123	122	225	15	37	108	316	451	25	60	237	45
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:	123	122	225	15	37	108	316	451	25	60	237	45
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:	123	122	225	15	37	108	316	451	25	60	237	45
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	123	122	225	15	37	108	316	451	25	60	237	45
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:	123	122	225	15	37	108	316	451	25	60	237	45
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
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	2.00	1.00	1.00	1.68	0.32
Final Sat.:	1600	3200	1600	1600	3200	1600	1600	3200	1600	1600	2689	511
Capacity Analysis Module:												
Vol/Sat:	0.08	0.04	0.14	0.01	0.01	0.07	0.20	0.14	0.02	0.04	0.09	0.09
Crit Moves:	****					****	****				****	

APPENDIX B-IV

CUMULATIVE WITH PROJECT TRAFFIC CONDITIONS

AM Cum Plus Project
Symphony Towers, Costa Mesa

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

Intersection #1 Bristol Street at Anton Boulevard

Cycle (sec):	100	Critical Vol./Cap.(X):	0.374
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	36	Level Of Service:	A

Street Name:	Bristol Street						Anton Boulevard					
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			Split Phase			Split Phase		
Rights:	Ignore			Include			Ovl			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:	2 0	4 0	1	2 0	4 0	1	1 0	1 0	1	3 0	1 0	1
Volume Module:												
Base Vol:	60	1123	1020	215	1593	16	6	11	2	479	9	91
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:	60	1123	1020	215	1593	16	6	11	2	479	9	91
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:	60	1123	1020	215	1593	16	6	11	2	479	9	91
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	60	1123	0	215	1593	16	6	11	2	479	9	91
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	60	1123	0	215	1593	16	6	11	2	479	9	91
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	60	1123	0	215	1593	16	6	11	2	479	9	91
OvlAdjVol:									0			0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
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:	2.00	4.00	1.00	2.00	4.00	1.00	1.00	1.00	1.00	3.00	1.00	1.00
Final Sat.:	3200	6400	1600	3200	6400	1600	1600	1600	1600	4800	1600	1600
Capacity Analysis Module:												
Vol/Sat:	0.02	0.18	0.00	0.07	0.25	0.01	0.00	0.01	0.00	0.10	0.01	0.06
OvlAdjV/S:									0.00			0.00
Crit Moves:	****				****			****		****		

AM Cum Plus Project
Symphony Towers, Costa Mesa

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

Intersection #2 Avenue of the Arts at Anton Boulevard

Cycle (sec):	100	Critical Vol./Cap.(X):	0.401
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	31	Level Of Service:	A

Street Name:	Avenue of the Arts						Anton Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Prot+Permit			Prot+Permit		
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	1 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	193	135	182	13	55	75	53	571	333	40	356	18
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:	193	135	182	13	55	75	53	571	333	40	356	18
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:	193	135	182	13	55	75	53	571	333	40	356	18
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:	193	135	182	13	55	75	53	571	333	40	356	18
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	193	135	182	13	55	75	53	571	333	40	356	18
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:	193	135	182	13	55	75	53	571	333	40	356	18
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
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	1.00	1.00	1.00	2.00	1.00	1.00	2.86	0.14
Final Sat.:	1600	3200	1600	1600	1600	1600	1600	3200	1600	1600	4569	231
Capacity Analysis Module:												
Vol/Sat:	0.12	0.04	0.11	0.01	0.03	0.05	0.03	0.18	0.21	0.03	0.08	0.08
Crit Moves:	****					****			****	****		

AM Cum Plus Project
Symphony Towers, Costa Mesa

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

****

Intersection #3 Driveway at Anton Boulevard

****

Average Delay (sec/veh): 3.2 Worst Case Level Of Service: C[19.8]

****

Street Name:	Driveway						Anton Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	1 0 0	0	1	0 0	1! 0	0	1 0	2 0	1	1 0	2 1	0
Volume Module:												
Base Vol:	65	0	52	37	0	71	38	680	28	5	275	21
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:	65	0	52	37	0	71	38	680	28	5	275	21
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:	65	0	52	37	0	71	38	680	28	5	275	21
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:	65	0	52	37	0	71	38	680	28	5	275	21
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	65	0	52	37	0	71	38	680	28	5	275	21
Critical Gap Module:												
Critical Gp:	7.5	xxxx	6.9	7.5	6.5	6.9	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	xxxx	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	858	xxxx	340	712	1080	102	296	xxxx	xxxxx	708	xxxx	xxxxx
Potent Cap.:	254	xxxx	662	324	220	940	1277	xxxx	xxxxx	900	xxxx	xxxxx
Move Cap.:	228	xxxx	662	290	212	940	1277	xxxx	xxxxx	900	xxxx	xxxxx
Volume/Cap:	0.28	xxxx	0.08	0.13	0.00	0.08	0.03	xxxx	xxxx	0.01	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	1.1	xxxx	0.3	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	0.0	xxxx	xxxxx
Control Del:	26.9	xxxx	10.9	xxxxx	xxxx	xxxxx	7.9	xxxx	xxxxx	9.0	xxxx	xxxxx
LOS by Move:	D	*	B	*	*	*	A	*	*	A	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	532	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	0.8	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	13.5	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	B	*	*	*	*	*	*	*
ApproachDel:	19.8			13.5			xxxxxx			xxxxxx		
ApproachLOS:	C			B			*			*		

****

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

****

AM Cum Plus Project
Symphony Towers, Costa Mesa

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

Intersection #4 Sakioka Drive at Anton Boulevard

Cycle (sec):	100	Critical Vol./Cap.(X):	0.320
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	27	Level Of Service:	A

Street Name:	Sakioka Drive						Anton Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Prot+Permit			Prot+Permit		
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	2 0	1	1 0	1 1	0
Volume Module:												
Base Vol:	55	16	53	76	73	127	48	458	237	93	128	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:	55	16	53	76	73	127	48	458	237	93	128	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:	55	16	53	76	73	127	48	458	237	93	128	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:	55	16	53	76	73	127	48	458	237	93	128	6
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	55	16	53	76	73	127	48	458	237	93	128	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:	55	16	53	76	73	127	48	458	237	93	128	6
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
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	2.00	1.00	1.00	1.91	0.09
Final Sat.:	1600	3200	1600	1600	3200	1600	1600	3200	1600	1600	3057	143
Capacity Analysis Module:												
Vol/Sat:	0.03	0.01	0.03	0.05	0.02	0.08	0.03	0.14	0.15	0.06	0.04	0.04
Crit Moves:	****					****			****	****		

PM Cum Plus Project
Symphony Towers, Costa Mesa

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

Intersection #1 Bristol Street at Anton Boulevard

Cycle (sec):	100	Critical Vol./Cap.(X):	0.664
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	68	Level Of Service:	B

Street Name:	Bristol Street						Anton Boulevard					
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			Split Phase			Split Phase		
Rights:	Ignore			Include			Ovl			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:	2 0	4 0	1	2 0	4 0	1	1 0	1 0	1	3 0	1 0	1
Volume Module:												
Base Vol:	390	2357	889	182	1519	71	89	34	107	881	95	308
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:	390	2357	889	182	1519	71	89	34	107	881	95	308
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:	390	2357	889	182	1519	71	89	34	107	881	95	308
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	390	2357	0	182	1519	71	89	34	107	881	95	308
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	390	2357	0	182	1519	71	89	34	107	881	95	308
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	390	2357	0	182	1519	71	89	34	107	881	95	308
OvlAdjVol:									0			217
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
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:	2.00	4.00	1.00	2.00	4.00	1.00	1.00	1.00	1.00	3.00	1.00	1.00
Final Sat.:	3200	6400	1600	3200	6400	1600	1600	1600	1600	4800	1600	1600
Capacity Analysis Module:												
Vol/Sat:	0.12	0.37	0.00	0.06	0.24	0.04	0.06	0.02	0.07	0.18	0.06	0.19
OvlAdjV/S:									0.00			0.14
Crit Moves:		****		****			****			****		

PM Cum Plus Project
Symphony Towers, Costa Mesa

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

Intersection #2 Avenue of the Arts at Anton Boulevard

Cycle (sec):	100	Critical Vol./Cap.(X):	0.526
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	39	Level Of Service:	A

Street Name:	Avenue of the Arts						Anton Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Prot+Permit			Prot+Permit		
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	1 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	361	492	269	31	49	155	125	705	147	42	452	38
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:	361	492	269	31	49	155	125	705	147	42	452	38
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:	361	492	269	31	49	155	125	705	147	42	452	38
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:	361	492	269	31	49	155	125	705	147	42	452	38
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	361	492	269	31	49	155	125	705	147	42	452	38
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:	361	492	269	31	49	155	125	705	147	42	452	38
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
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	1.00	1.00	1.00	2.48	0.52	1.00	2.77	0.23
Final Sat.:	1600	3200	1600	1600	1600	1600	1600	3972	828	1600	4428	372
Capacity Analysis Module:												
Vol/Sat:	0.23	0.15	0.17	0.02	0.03	0.10	0.08	0.18	0.18	0.03	0.10	0.10
Crit Moves:	****					****		****		****		

PM Cum Plus Project
Symphony Towers, Costa Mesa

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

****

Intersection #3 Driveway at Anton Boulevard

****

Average Delay (sec/veh): 3.2 Worst Case Level Of Service: D[30.3]

****

Street Name:	Driveway						Anton Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	1 0 0 0 1			0 0 1! 0 0			1 0 2 0 1			1 0 2 1 0		
Volume Module:												
Base Vol:	38	0	30	35	0	59	114	760	111	20	431	45
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:	38	0	30	35	0	59	114	760	111	20	431	45
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:	38	0	30	35	0	59	114	760	111	20	431	45
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:	38	0	30	35	0	59	114	760	111	20	431	45
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	38	0	30	35	0	59	114	760	111	20	431	45
Critical Gap Module:												
Critical Gp:	7.5	xxxx	6.9	7.5	6.5	6.9	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	xxxx	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	1172	xxxx	380	1102	1593	166	476	xxxx	xxxxx	871	xxxx	xxxxx
Potent Cap.:	150	xxxx	624	169	108	855	1097	xxxx	xxxxx	783	xxxx	xxxxx
Move Cap.:	126	xxxx	624	145	95	855	1097	xxxx	xxxxx	783	xxxx	xxxxx
Volume/Cap:	0.30	xxxx	0.05	0.24	0.00	0.07	0.10	xxxx	xxxx	0.03	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	1.2	xxxx	0.2	xxxx	xxxx	xxxxx	0.3	xxxx	xxxxx	0.1	xxxx	xxxxx
Control Del:	45.4	xxxx	11.1	xxxxx	xxxx	xxxxx	8.7	xxxx	xxxxx	9.7	xxxx	xxxxx
LOS by Move:	E	*	B	*	*	*	A	*	*	A	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	303	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	1.3	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	22.1	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	C	*	*	*	*	*	*	*
ApproachDel:	30.3			22.1			xxxxxx			xxxxxx		
ApproachLOS:	D			C			*			*		

****

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

****

PM Cum Plus Project
Symphony Towers, Costa Mesa

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

Intersection #4 Sakioka Drive at Anton Boulevard

Cycle (sec):	100	Critical Vol./Cap.(X):	0.438
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	33	Level Of Service:	A

Street Name:	Sakioka Drive						Anton Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Prot+Permit			Prot+Permit		
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	2 0	1	1 0	1 1	0
Volume Module:												
Base Vol:	123	122	225	15	37	111	318	479	25	60	253	45
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:	123	122	225	15	37	111	318	479	25	60	253	45
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:	123	122	225	15	37	111	318	479	25	60	253	45
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:	123	122	225	15	37	111	318	479	25	60	253	45
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	123	122	225	15	37	111	318	479	25	60	253	45
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:	123	122	225	15	37	111	318	479	25	60	253	45
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
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	2.00	1.00	1.00	1.70	0.30
Final Sat.:	1600	3200	1600	1600	3200	1600	1600	3200	1600	1600	2717	483
Capacity Analysis Module:												
Vol/Sat:	0.08	0.04	0.14	0.01	0.01	0.07	0.20	0.15	0.02	0.04	0.09	0.09
Crit Moves:	****					****	****				****	

APPENDIX C

TRAFFIC SIGNAL WARRANT WORKSHEETS

AM Cum Plus Project
Symphony Towers, Costa Mesa

Peak Hour Delay Signal Warrant Report

Intersection #3 Driveway at Anton Boulevard

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	1 0	0 0	1	0 0	1! 0	0	1 0	2 0	1	1 0	2 1	0
Initial Vol:	65	0	52	37	0	71	38	680	28	5	275	21
ApproachDel:	19.8			13.5			xxxxxx			xxxxxx		

Approach[northbound][lanes=2][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.6]
FAIL - Vehicle-hours less than 5 for two or more lane approach.
Signal Warrant Rule #2: [approach volume=117]
FAIL - Approach volume less than 150 for two or more lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1272]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.4]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=108]
SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1272]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

AM Cum Plus Project
Symphony Towers, Costa Mesa

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #3 Driveway at Anton Boulevard

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	1 0 0 0 1			0 0 1! 0 0			1 0 2 0 1			1 0 2 1 0		
Initial Vol:	65	0	52	37	0	71	38	680	28	5	275	21

Major Street Volume: 1047
Minor Approach Volume: 117
Minor Approach Volume Threshold: 354

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

PM Cum Plus Project
Symphony Towers, Costa Mesa

Peak Hour Delay Signal Warrant Report

Intersection #3 Driveway at Anton Boulevard

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	1 0	0 0	1	0 0	1! 0	0	1 0	2 0	1	1 0	2 1	0
Initial Vol:	38	0	30	35	0	59	114	760	111	20	431	45
ApproachDel:	30.3			22.1			xxxxxx			xxxxxx		

Approach[northbound][lanes=2][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.6]
FAIL - Vehicle-hours less than 5 for two or more lane approach.
Signal Warrant Rule #2: [approach volume=68]
FAIL - Approach volume less than 150 for two or more lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1643]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.6]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=94]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1643]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

PM Cum Plus Project
Symphony Towers, Costa Mesa

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #3 Driveway at Anton Boulevard

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign					Stop Sign					Uncontrolled					Uncontrolled				
Lanes:	1	0	0	0	1	0	0	1!	0	0	1	0	2	0	1	1	0	2	1	0
Initial Vol:	38		0		30	35		0		59	114		760		111	20		431		45

Major Street Volume: 1481
Minor Approach Volume: 94
Minor Approach Volume Threshold: 150

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

APPENDIX D

QUEUING WORKSHEETS

AM Cum Plus Project
Symphony Towers, Costa Mesa
Queuing

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

Intersection #3 Driveway at Anton Boulevard

Average Delay (sec/veh): 3.2 Worst Case Level Of Service: C[19.8]

Street Name:	Driveway						Anton Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	1 0 0 0 1			0 0 1! 0 0			1 0 2 0 1			1 0 2 1 0		
Volume Module:												
Base Vol:	65	0	52	37	0	71	38	680	28	5	275	21
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:	65	0	52	37	0	71	38	680	28	5	275	21
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:	65	0	52	37	0	71	38	680	28	5	275	21
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:	65	0	52	37	0	71	38	680	28	5	275	21
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	65	0	52	37	0	71	38	680	28	5	275	21
Critical Gap Module:												
Critical Gp:	7.5	xxxx	6.9	7.5	6.5	6.9	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	xxxx	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	858	xxxx	340	712	1080	102	296	xxxx	xxxxx	708	xxxx	xxxxx
Potent Cap.:	254	xxxx	662	324	220	940	1277	xxxx	xxxxx	900	xxxx	xxxxx
Move Cap.:	228	xxxx	662	290	212	940	1277	xxxx	xxxxx	900	xxxx	xxxxx
Volume/Cap:	0.28	xxxx	0.08	0.13	0.00	0.08	0.03	xxxx	xxxx	0.01	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	1.1	xxxx	0.3	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	0.0	xxxx	xxxxx
Control Del:	26.9	xxxx	10.9	xxxxx	xxxx	xxxxx	7.9	xxxx	xxxxx	9.0	xxxx	xxxxx
LOS by Move:	D	*	B	*	*	*	A	*	*	A	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	532	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	0.8	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	13.5	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	B	*	*	*	*	*	*	*
ApproachDel:		19.8			13.5			xxxxxx			xxxxxx	
ApproachLOS:		C			B			*			*	

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

AM Cum Plus Project
Symphony Towers, Costa Mesa
Queuing

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

Intersection #4 Sakioka Drive at Anton Boulevard

Cycle (sec):	100	Critical Vol./Cap.(X):	0.277
Loss Time (sec):	0	Average Delay (sec/veh):	16.9
Optimal Cycle:	26	Level Of Service:	B

Street Name:	Sakioka Drive						Anton Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Prot+Permit			Prot+Permit		
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	2 0	1	1 0	1 1	0
Volume Module:												
Base Vol:	55	16	53	76	73	127	48	458	237	93	128	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:	55	16	53	76	73	127	48	458	237	93	128	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:	55	16	53	76	73	127	48	458	237	93	128	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:	55	16	53	76	73	127	48	458	237	93	128	6
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	55	16	53	76	73	127	48	458	237	93	128	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:	55	16	53	76	73	127	48	458	237	93	128	6
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.67	0.95	0.85	0.75	0.95	0.85	0.95	0.95	0.85	0.95	0.94	0.94
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.91	0.09
Final Sat.:	1269	3610	1615	1416	3610	1615	1805	3610	1615	1805	3424	161
Capacity Analysis Module:												
Vol/Sat:	0.04	0.00	0.03	0.05	0.02	0.08	0.03	0.13	0.15	0.05	0.04	0.04
Crit Moves:						****			****	****		
Green/Cycle:	0.28	0.28	0.28	0.28	0.28	0.28	0.72	0.53	0.53	0.60	0.42	0.42
Volume/Cap:	0.15	0.02	0.12	0.19	0.07	0.28	0.05	0.24	0.28	0.13	0.09	0.09
Delay/Veh:	27.0	25.8	26.6	27.3	26.2	28.2	4.2	12.7	13.1	8.3	17.6	17.6
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:	27.0	25.8	26.6	27.3	26.2	28.2	4.2	12.7	13.1	8.3	17.6	17.6
LOS by Move:	C	C	C	C	C	C	A	B	B	A	B	B
HCM2k95thQ:	3	0	3	4	2	6	1	8	8	3	3	3

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PM Cum Plus Project
Symphony Towers, Costa Mesa
Queuing

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

Intersection #3 Driveway at Anton Boulevard

Average Delay (sec/veh): 3.2 Worst Case Level Of Service: D[30.3]

Street Name:	Driveway						Anton Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	1 0 0	0	1	0 0	1! 0	0	1 0 2	0	1	1 0 2	1	0
Volume Module:												
Base Vol:	38	0	30	35	0	59	114	760	111	20	431	45
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:	38	0	30	35	0	59	114	760	111	20	431	45
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:	38	0	30	35	0	59	114	760	111	20	431	45
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:	38	0	30	35	0	59	114	760	111	20	431	45
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	38	0	30	35	0	59	114	760	111	20	431	45
Critical Gap Module:												
Critical Gp:	7.5	xxxx	6.9	7.5	6.5	6.9	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	xxxx	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	1172	xxxx	380	1102	1593	166	476	xxxx	xxxxx	871	xxxx	xxxxx
Potent Cap.:	150	xxxx	624	169	108	855	1097	xxxx	xxxxx	783	xxxx	xxxxx
Move Cap.:	126	xxxx	624	145	95	855	1097	xxxx	xxxxx	783	xxxx	xxxxx
Volume/Cap:	0.30	xxxx	0.05	0.24	0.00	0.07	0.10	xxxx	xxxx	0.03	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	1.2	xxxx	0.2	xxxx	xxxx	xxxxx	0.3	xxxx	xxxxx	0.1	xxxx	xxxxx
Control Del:	45.4	xxxx	11.1	xxxxx	xxxx	xxxxx	8.7	xxxx	xxxxx	9.7	xxxx	xxxxx
LOS by Move:	E	*	B	*	*	*	A	*	*	A	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	303	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	1.3	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	22.1	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	C	*	*	*	*	*	*	*
ApproachDel:		30.3			22.1			xxxxxx			xxxxxx	
ApproachLOS:		D			C			*			*	

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

PM Cum Plus Project
Symphony Towers, Costa Mesa
Queuing

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

Intersection #4 Sakioka Drive at Anton Boulevard

Cycle (sec):	100	Critical Vol./Cap.(X):	0.400
Loss Time (sec):	0	Average Delay (sec/veh):	19.7
Optimal Cycle:	31	Level Of Service:	B

Street Name:	Sakioka Drive						Anton Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Prot+Permit			Prot+Permit		
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	2 0	1	1 0	1 1	0
Volume Module:												
Base Vol:	123	122	225	15	37	111	318	479	25	60	253	45
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:	123	122	225	15	37	111	318	479	25	60	253	45
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:	123	122	225	15	37	111	318	479	25	60	253	45
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:	123	122	225	15	37	111	318	479	25	60	253	45
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	123	122	225	15	37	111	318	479	25	60	253	45
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:	123	122	225	15	37	111	318	479	25	60	253	45
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.72	0.95	0.85	0.62	0.95	0.85	0.95	0.95	0.85	0.95	0.93	0.93
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.70	0.30
Final Sat.:	1370	3610	1615	1186	3610	1615	1805	3610	1615	1805	2994	533
Capacity Analysis Module:												
Vol/Sat:	0.09	0.03	0.14	0.01	0.01	0.07	0.18	0.13	0.02	0.03	0.08	0.08
Crit Moves:			****				****				****	
Green/Cycle:	0.35	0.35	0.35	0.35	0.35	0.35	0.65	0.52	0.52	0.34	0.21	0.21
Volume/Cap:	0.26	0.10	0.40	0.04	0.03	0.20	0.34	0.25	0.03	0.14	0.40	0.40
Delay/Veh:	23.6	22.0	25.1	21.5	21.5	23.0	8.0	13.3	11.7	22.6	34.3	34.3
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:	23.6	22.0	25.1	21.5	21.5	23.0	8.0	13.3	11.7	22.6	34.3	34.3
LOS by Move:	C	C	C	C	C	C	A	B	B	C	C	C
HCM2k95thQ:	6	3	10	1	1	5	9	8	1	3	9	9