4.0 ENVIRONMENTAL IMPACT ANALYSIS
G. TRAFFIC/TRANSPORTATION

INTRODUCTION

This section of the EIR analyzes the project's potential to result in the following traffic/transportation-related impacts: increased number of vehicle trips and traffic congestion; exceedance of established levels of service for the county congestion management agency; increased hazards due to design features; parking capacity; and the potential for the proposed project to conflict with adopted policies supporting alternative transportation. The following issues related to traffic/transportation were scoped out of the EIR in the project's Initial Study (IS): changes in air traffic patterns and the adequacy of emergency access. The traffic impact analysis in this section is based on the *Center Avenue Skate Park Traffic Analysis* (herein referred to as the "Traffic Study"), prepared by Austin-Foust Associates, Inc., dated December 2011. The Traffic Study is contained in Appendix E of this EIR. This section also was prepared utilizing the City's General Plan Circulation Element and the Beach *Boulevard and Edinger Avenue Corridors Specific Plan (BECSP) Traffic Study*, dated August 2009. In addition, analysis and findings from the Beach and Edinger Corridors Specific Plan EIR, which was certified in December 2009, was used where appropriate. A reference-list of entries for all cited materials is provided in Chapter 7, *Document Preparation and References*, of this EIR.

1. ENVIRONMENTAL SETTING

This section provides an assessment of existing conditions in/around the project study area, including a description of the existing street and highway system, traffic volumes on these facilities, and operating conditions at selected intersections.

a. Existing Conditions

(1) Regional Highway and Street Network

(a) Freeways

Regional and inter-regional access for the City of Huntington Beach is provided by a system of freeways, and major and local arterials. The San Diego Freeway (I-405) is the major north-south freeway that provides regional access to the City. The project site is bounded by McFadden Avenue to the north, Gothard Street to the west and Center Avenue to the south. Center Avenue extends east and intersects the I-405 southbound ramps.

Beach Boulevard, also known as State Route 39 located east of the project site also intersects Center Avenue. Beach Boulevard has been designated as a "Smart Street Corridor" by the Orange County Transportation Authority (OCTA). McFadden Avenue located north of the proposed project is considered a state highway between Gothard Street and Goldenwest Street. Additionally, Gothard Street is considered a primary north-south street extending from the I-405.

(b) Local Access

Arterial roadways in the vicinity of the project site include McFadden Avenue, Gothard Street, Center Avenue and Edinger Avenue. The key local streets serving the project site are described below:

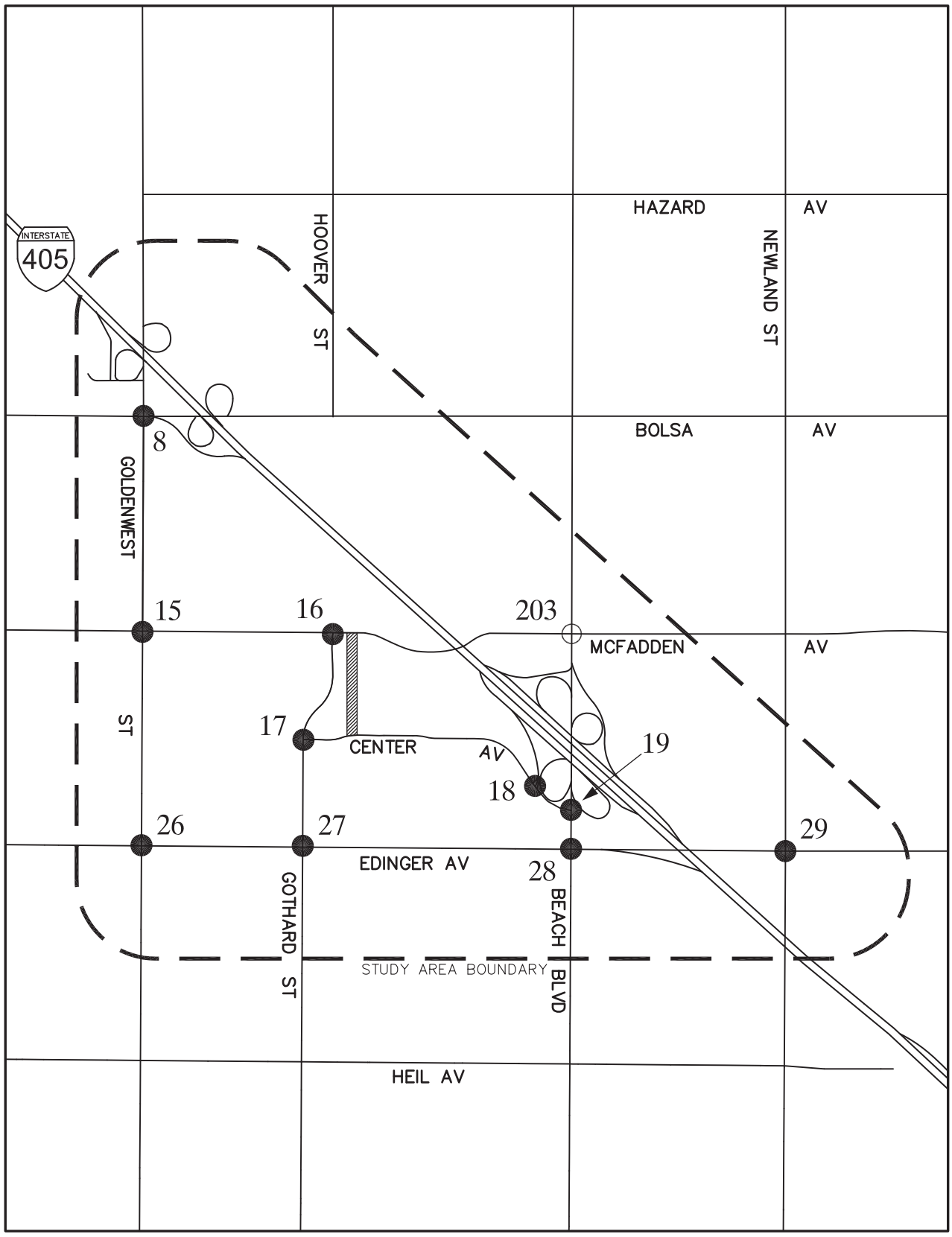
- McFadden Avenue is currently an east-west primary roadway consisting of a four-lane undivided roadway. An access driveway to the project site will be located on McFadden Avenue.
- Center Avenue is currently an east-west secondary roadway consisting of a four-lane undivided roadway. An access driveway to the project site will be located on Center Avenue.
- Gothard Street is currently a north-south four-lane divided roadway provided within a secondary arterial right-of-way section. The City's General Plan Circulation Element classifies Gothard Street as a Major Arterial six-lane divided roadway between Heil Avenue and McFadden Avenue. The actual street classification for this section of Gothard Street is more complicated than most typical roadways in the City and is discussed in greater detail in the following section. Gothard Street will not provide access to the project site.
- Edinger Avenue is a major east-west six lane divided roadway. The City's General Plan Circulation Element classifies Edinger Avenue between Newland Street and Springdale Street as a major six-lane divided roadway, and to the east of Newland Street, Edinger Avenue becomes a four-lane primary divided roadway.

The City's General Plan Circulation Element has classifications for some roadways that differ from the Orange County Master Plan of Arterial Highways (MPAH). The Arterial Highway Plan in the General Plan Circulation Element is defined according to two sets of specifications. The first is the Circulation Plan of Arterial Streets and Highway (CPAS&H) which is generally consistent with the MPAH. The second is the 2010 Circulation Plan of Arterial Highways (2010 CPAH) which augments the basic CPAS&H roadway classifications in selected areas. When questions of right-of-way arise, it is typically the 2010 CPAH that is used to define the appropriate roadway section. Additionally, the City has established a process by ordinance that defines in more detail the specific dimensions and alignment of roadways through the adoption of an individual Precise Plan of Street Alignment for a given street segment. Typically, the Precise Plan of Street Alignment will take precedence over the 2010 CPAH.

The section of Gothard Street adjacent to the proposed project is an example of where the CPAS&H and the 2010 CPAH have different classifications. The Precise Plan of Street Alignment adopted by the City and the CPAS&H shows the roadway as a four-lane roadway. While CPAS&H shows the street as undivided, the Precise Plan of Street Alignment identifies a divided street section. The 2010 CPAH shows a six-lane Major (six lanes divided) classification. The street is currently built as a four-lane divided roadway with bike lanes within a typical Secondary Arterial right-of-way. This is accomplished by providing minimum (rather than desirable) lane dimensions in all lanes.

(2) Study Area

The project study area includes a total of 11 intersections. One is in the City of Westminster (McFadden Ave. and Beach Blvd.) and the remainder are in the City of Huntington Beach. The intersections studied in this analysis are shown in **Figure 4.G-1**, *Intersections In Study Area*. The study area intersections include:



Legend

- HB intersection
- Other jurisdiction
- Project Site

PCR

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Not to scale

Intersections in Study Area

Center Avenue Skate Park Project

Source: Austin-Foust Associates, Inc., 2011.

FIGURE

4-G-1

- Goldenwest Street and Bolsa Avenue (Location No. 8)
- Goldenwest Street and McFadden Avenue (Location No. 15)
- Gothard Street and McFadden Avenue (Location No. 16)
- Gothard Street and Center Avenue (Locatio
- I-405 SB Ramps and Center Avenue (Location No. 18)
- Beach Boulevard and Center Avenue (Location No. 19)
- Goldenwest Street and Edinger Avenue (Location No. 26)
- Gothard Street and Edinger Avenue (Location No. 27)
- Beach Boulevard and Edinger Avenue (Location No. 28)
- Newland Street and Edinger Avenue (Location No. 29)
- Beach Boulevard and McFadden Avenue (Location No. 203)

(3) Existing Traffic Volumes

The existing (2009) average daily traffic (ADT) volumes in the study area are presented in **Figure 4.G-2**, *Existing ADT Volumes (000s)*. Arterial roadways in the vicinity of the proposed project include Gothard Street with 15,000 ADT, Center Avenue with 10,000 ADT, and Edinger Avenue with 30,000 ADT. Existing peak hour intersection volumes are illustrated in **Figure 4.G-3**, *Existing A.M. Peak Hour Volumes,* and **Figure 4.G-4**, *Existing P.M. Peak Hour Volumes,* for the A.M. and P.M., respectively.

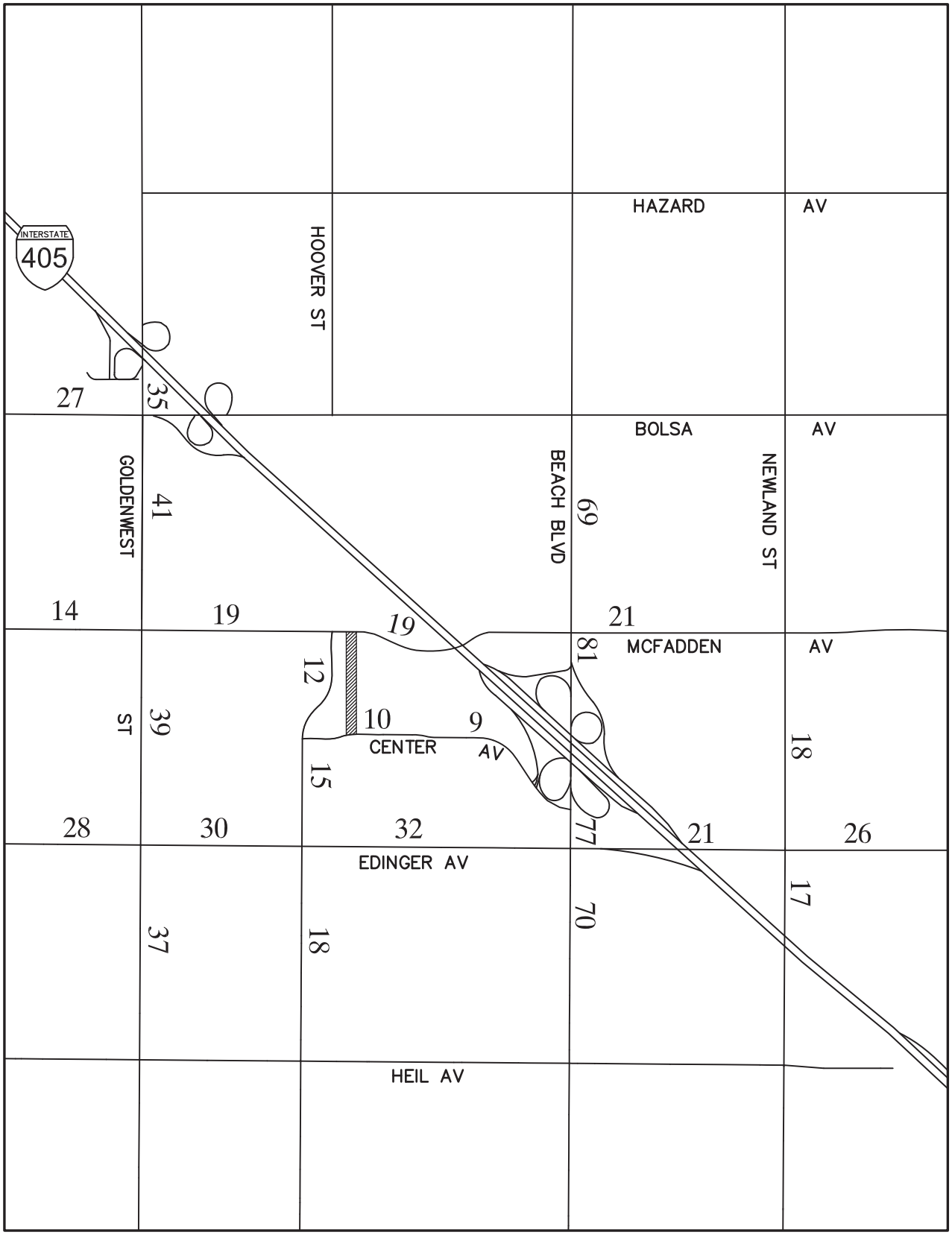
(4) Existing Operating Conditions

(a) Intersections – Levels of Service

Traffic levels of service (LOS) are designated "A" through "F", with LOS "A" representing free flow conditions and LOS "F" representing severe traffic congestion. **Table 4.G-1**, *Level of Service Descriptions – Signalized Intersections*, defines the various LOS designations for signalized intersections.

For the purposes of this analysis, inclusive of existing conditions, performance criteria used for evaluating volumes and capacities on the City street system are based on peak hour intersection volumes. Using peak hour intersection turn movement volumes and the intersection lane geometry, intersection capacity utilization (ICU) values are calculated for each of the A.M. and P.M. peak hours. The ICU values represent volume/capacity (V/C) ratios for these time periods, and thereby provide a suitable measure of system performance. For Caltrans intersections, average vehicle delay calculations are also made using the Highway Capacity Manual (HCM) methodology (i.e., both ICU values and average delay are calculated for these intersections). HCM methodology estimates the average total delay for each of the traffic movements and determines the LOS for each movement. The overall average delay is measured in seconds per vehicle, and LOS is then calculated for the entire intersection both ICU values and average delay are calculated for these intersections.

Acceptable LOS is LOS "D" (ICU not to exceed .90) as defined by City of Huntington Beach Traffic Study Guidelines, whereas the performance standard for Orange County Congestion Management Program (CMP) Intersections is LOS E, (ICU not to exceed 1.0). There is one CMP intersection located in the study area:



Legend

Project Site

PCR

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Not to scale

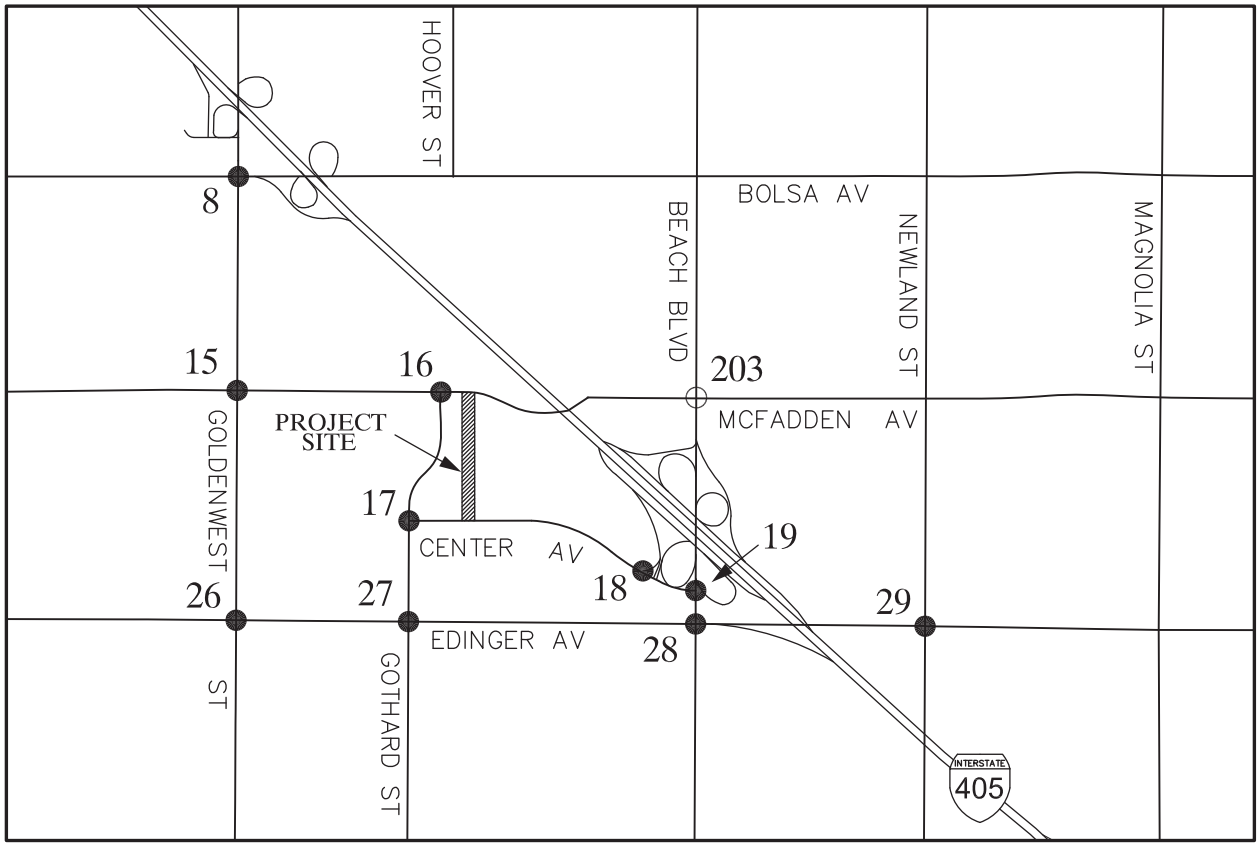
Existing ADT Volumes (000s)

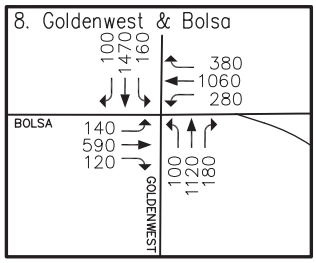
Center Avenue Skate Park Project

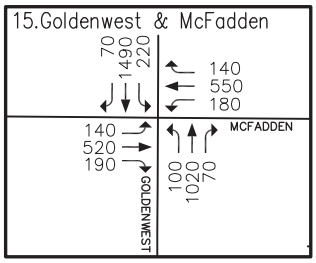
Source: Austin-Foust Associates, Inc., 2011.

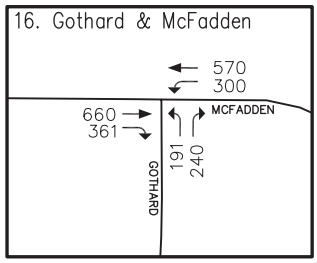
FIGURE

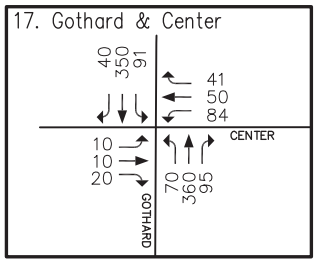
4-G-2

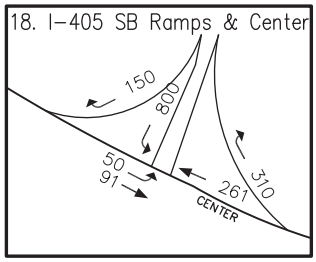


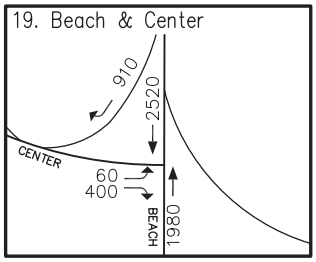


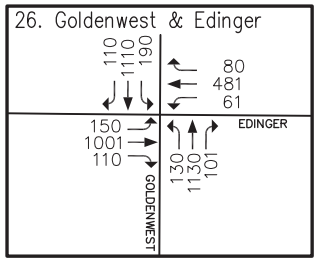


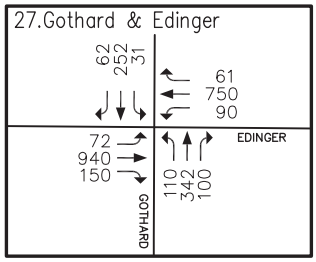


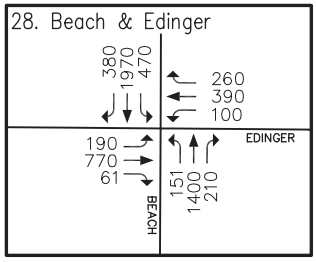


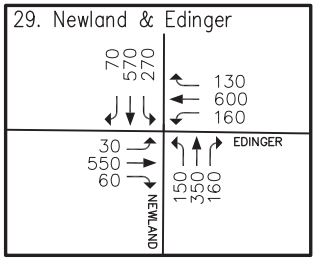


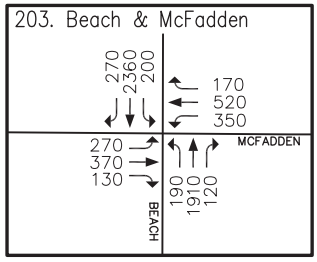












PCR

Not to scale

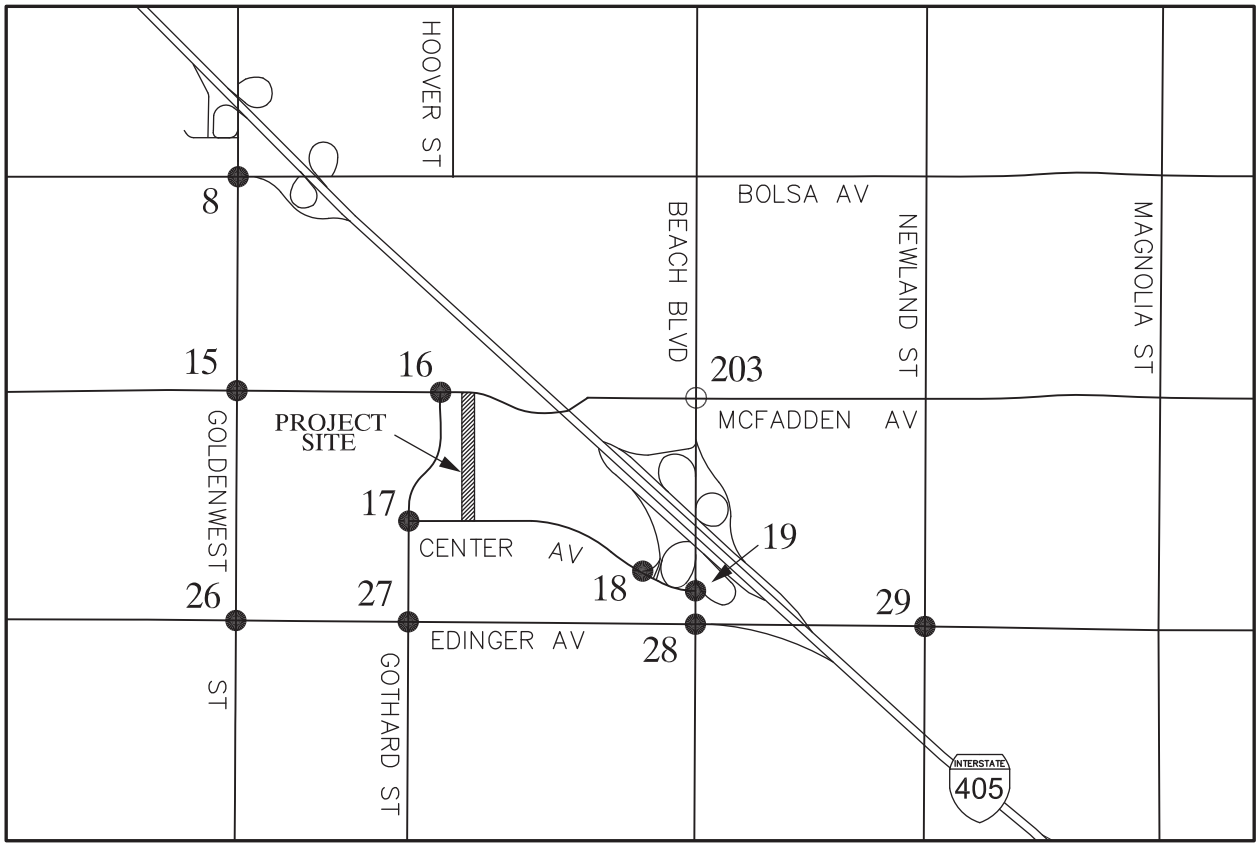
Existing A.M. Peak Hour Volumes

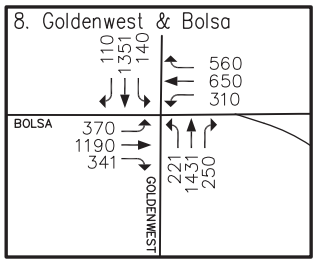
Center Avenue Skate Park Project

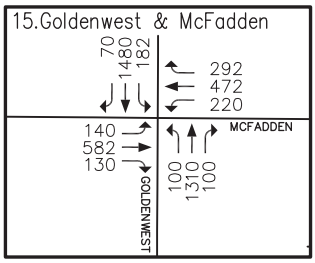
Source: Austin-Foust Associates, Inc., 2011.

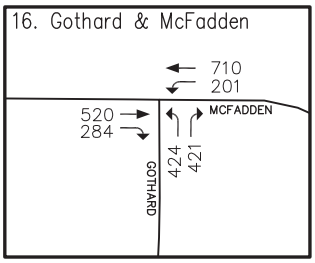
FIGURE

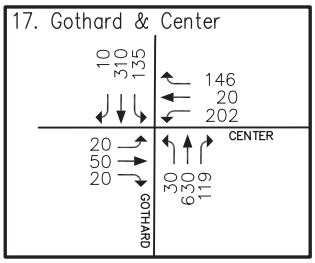
4-G-3

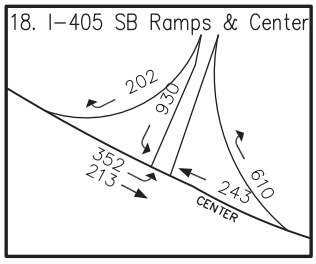


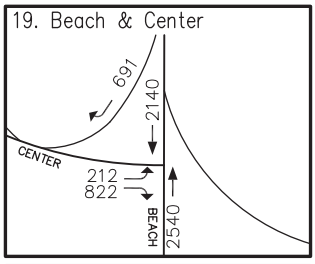


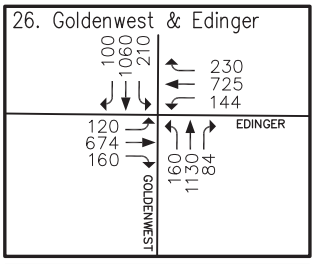


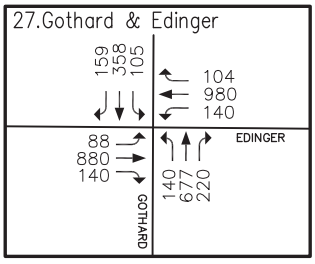


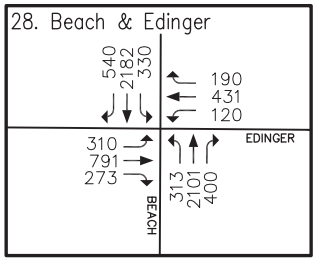


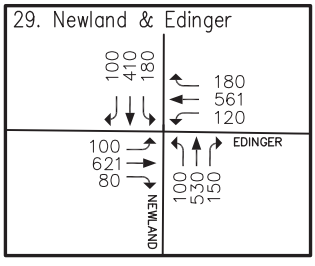


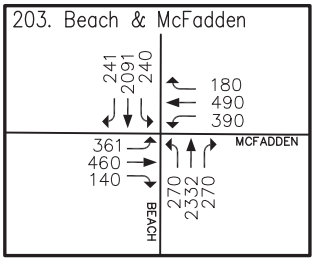












PCR

N

Not to scale

Existing P.M. Peak Hour Volumes

Center Avenue Skate Park Project

Source: Austin-Foust Associates, Inc., 2011.

FIGURE

4-G-4

Table 4.G-1

Level of Service Descriptions – Signalized Intersections

Level of Service	Delay Per Vehicle (secs)	Description of Operating Characteristics
A	< 10	LOS A describes operations with low control delay, up to 10 seconds per vehicle. This LOS occurs when progression is extremely favorable and most vehicles arrive during the green phase. Many vehicles do not stop at all. Short cycle lengths may tend to contribute to low delay values.
B	10-20	LOS B describes operations with control delay greater than 10 and up to 20 seconds per vehicle. This level generally occurs with good progression, short cycle lengths, or both. More vehicles stop than the LOS A, causing higher levels of delay.
C	20-35	LOS C describes operations with control delay greater than 20 and up to 35 seconds per vehicle. These higher delays may result from only fair progression, longer cycle lengths, or both. Individual cycle failures may begin to appear at this level. Cycle failure occurs when a given green phase does not serve queued vehicles, and overflows occur. The number of vehicles stopping is significant at this level, though many still pass through the intersection without stopping.
D	35-55	LOS D describes operations with control delay greater than 35 and up to 55 seconds per vehicle. At LOS D, the influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, and high V/C ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.
E	55-80	LOS E describes operations with control delay greater than 55 and up to 80 seconds per vehicle. These high delay values generally indicate poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent.
F	> 80	LOS F describes operations with control delay in excess of 80 seconds per vehicle. This level, considered unacceptable to most drivers, often occurs with oversaturation, that is, when arrival flow rates exceed the capacity of lane groups. It may also occur at high V/C ratios with many individual cycle failures. Poor progression and long cycle lengths may also contribute significantly to high delay levels.

Source: Center Avenue Skate Park Traffic Analysis, prepared by Austin-Foust Associates, Inc., dated December 2011.

Beach Boulevard at Edinger Avenue. Although LOS E is acceptable for CMP purposes at this location, the City performance standard of LOS D is typically used in traffic analysis application.

The results of the existing intersection analysis are summarized in **Table 4.G-2**, *Existing Level of Service Summary*, which includes the existing level of service summary for both ICU and HCM methodologies. Table 4.G-2 shows all intersections to be operating at a LOD D or better.

Table 4.G-2

Existing Level of Service Summary

Delay

Location	A.M. Peak Hour		P.M. Peak Hour	
	ICU	LOS	ICU	LOS
8. Goldenwest St & Bolsa Ave	.64	B	.86	D
15. Goldenwest St & McFadden Ave	.68	B	.72	C
16. Gothard St & McFadden Ave	.48	A	.51	A
17. Gothard St & Center Ave	.28	A	.47	A
18. I-405 SB Ramps & Center Ave	.40	A	.75	C
19. Beach Blvd & Center Ave	.54	B	.63	B
26. Goldenwest St & Edinger Ave	.62	B	.60	A
27. Gothard St & Edinger Ave	.41	A	.57	A
28. Beach Blvd & Edinger Ave	.64	C	.78	C
29. Newland St & Edinger Ave	.61	C	.61	B
203. Beach Blvd & McFadden Ave	.78	C	.81	D

Highway Capacity Manual (HCM) Delay (Caltrans Intersections)

Location	A.M. Peak Hour		P.M. Peak Hour	
	ICU	LOS	ICU	LOS
18. I-405 SB Ramps & Center Ave	27.0	C	41.4	D
19. Beach Blvd & Center Ave	8.4	A	7.8	A
28. Beach Blvd & Edinger Ave	28.2	C	33.2	C
203. Beach Blvd & McFadden Ave	34.6	C	40.4	D

Source: Center Avenue Skate Park Traffic Analysis, prepared by Austin-Foust Associates, Inc., dated December 2011.

(b) Freeways

In terms of freeway interchange ramps, the analysis is based on peak hour V/C ratios, with capacity being a function of the particular operating characteristics of each ramp. LOS "E" (peak hour V/C less than or equal to 1.00) is an acceptable level of service for freeway ramps. Existing conditions on the freeway ramps that would be affected by the proposed project are summarized in **Table 4.G-3**, *Existing Freeway Ramp V/C Summary*. The I-405 northbound loop ramp from Beach Boulevard exceeds the V/C threshold of 1.0 in both the A.M. and P.M. peak hours.

(5) Future Conditions

The study area circulation system as defined by the Orange County Master Plan of Arterial Highways (MPAH) can be seen in Figure 2-6 of the Traffic Study (included as Appendix E of this EIR). Study area roadway segments not currently built to their full MPAH standard are as follows:

Roadway	Segment	MPAH	Existing
McFadden Ave	Goldenwest to Beach Blvd	4-lane secondary arterial	2-lane roadway over I-405
Gothard St	Hoover St to McFadden Ave	4-lane secondary arterial	Not built

Table 4.G-3

Existing Freeway Ramp V/C Summary

Location	A.M. Peak Hour			P.M. Peak Hour		
	Capacity	Volume	V/C	Capacity	Volume	V/C
I-405/Beach Blvd NB loop on-ramp (from NB Beach Blvd)	900	1,240	1.38	900	1,240	1.38
I-405/Beach Blvd NB loop off-ramp (from SB Beach Blvd)	1,500	690	.46	1,500	880	.59
I-405/Beach Blvd SB on-ramp at Center Ave	1,800	360	.20	1,800	960	.53
I-405/Beach Blvd SB off-ramp at Center Ave	1,500	950	.63	1,500	1,130	.75
I-405/Edinger Ave SB direct on-ramp	1,080	570	.53	1,080	570	.53

Source: Center Avenue Skate Park Traffic Analysis, prepared by Austin-Foust Associates, Inc., dated December 2011

Neither of the first two segments have current funding commitments for constructing to MPAH standards (widening in the case of McFadden Avenue and construction in the case of Gothard Street). Widening of the McFadden Avenue overcrossing of I-405 is included in the current improvement project for the I-405 Corridor. Since this is still in the review stage with construction not fully funded at this time, the bridge improvement was not included as a committed project.

For traffic analysis purposes, only currently committed roadway improvements have been assumed in the impact analysis. For the study area, these are as follows:

The intersection improvements (last two items in this table) are assumed in both the short-range and long-range analyses.

Location	Improvement	Time Frame
I-405 Freeway	Add one lane in each direction from I-605 to SR-73	Long-Range
Heil Ave	Widen to four lanes from Gothard St to Beach Blvd	Short-Range
Beach Blvd/Heil Ave	Convert westbound right turn lane to westbound through lane	Short-Range
Beach Blvd/Edinger Ave	Add second westbound left turn lane	Short-Range

(a) Future Growth

Future growth in the City of Huntington Beach is portrayed in the Orange County Projections (OCP) 2006 and also in the Citywide land use database recently prepared by the City. The latter is the basis for long-range traffic forecasting and the Citywide growth statistics are as follows:

Category	2007	2030	Increase
Population	216,471[a]	233,457	8%
Housing	76,890	83,396	8%
Employment	81,694	94,127	15%

[a] *The 2010 census indicated that the City's population is less than 190,000 persons. The traffic assessment of existing conditions is based on recent traffic counts conducted for the project. Thus, the "existing plus project" analysis is not affected by the current population estimates. The short-range (2016) and long-range (2030) traffic analyses are based on best available information, included within the Huntington Beach Traffic Model (HBTM). The HBTM is periodically updated to accurately project future traffic conditions. Please refer to Section 4.G, Transportation and Parking, for a detailed discussion of the methodology to determine future growth for the short-and long-range analyses.*

Source: PCR Services Corporation, 2011.

These forecasts are similar to those in OCP-2006, and as can be seen they show an eight percent increase in population and housing and a 15 percent increase in employment by 2030 in Huntington Beach.

Long-range (2030) volumes used in this analysis are derived using the Huntington Beach Traffic Model (HBTM). The HBTM uses the land use projections listed above to forecast future traffic volumes on the Citywide arterial street system.

For the short-range analysis (see analysis of project impacts section below), background (no-project) traffic volumes were derived by interpolating between existing and 2030 volumes. As noted earlier in this chapter, they generally represent a 2016 time frame and account for ambient growth and related projects during this time period. The 2016 analysis also provides the five to seven year time frame required for Growth Management Plan (GMP) and Congestion Management Program (CMP) purposes.

(6) Transit Service

The OCTA bus transit center is located immediately west of the project site and provides a convenient location for trips to be made by transit. The Union Pacific Railroad right of way which borders the eastside of the project site currently serves goods movement on an irregular basis. The sidewalks immediately surrounding the project site all provide continuous access, with pedestrian friendly sidewalks located on the north side of Center Avenue. The intersection of Center Avenue and Gothard Street is signalized and provides marked crosswalks on all four legs, providing a safe route for patrons from the west and south. Class II bike lanes exist on most streets immediately surrounding the proposed project. Access to and from the actual site would occur via Center Avenue, where designated bike lanes are not provided.

b. Regulatory Framework

(1) Federal

There are no federal transportation regulations pertinent to the proposed project.

(2) State

(a) Statewide Transportation Improvement Program (STIP)

The California Department of Transportation (Caltrans) administers transportation programming. Transportation programming is the public decision making process which sets priorities and funds projects envisioned in long-range transportation plans. It commits expected revenues over a multi-year period to transportation projects. The STIP is a multi-year capital improvement program of transportation projects on and off the State Highway System, funded with revenues from the State Highway Account and other funding sources.

(3) Regional

(a) Regional Comprehensive Plan and Guide

The Southern California Association of Governments (SCAG), which is the designated Metropolitan Planning Organization for six Southern California counties (Ventura, Orange, San Bernardino, Riverside, Imperial, and Los Angeles), is federally mandated to develop plans for transportation, growth management, hazardous waste management, and air quality. SCAG has prepared the RCPG in conjunction with its constituent members and other regional planning agencies. The RCPG is intended to serve as a framework to guide decision-making with respect to the growth and changes that can be anticipated in the region through the year 2015. The Plan consists of five core chapters that contain goals, policies, implementation strategies, and technical data that support three overarching objectives for the region, including (1) improving the standard of living for all, (2) improving the quality of life for all, and (3) enhancing equity and access to government. Local governments are required to use the RCPG as the basis for their own plans.

(b) Orange County Congestion Management Plan

The CMP requires that a TIA 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). Per the CMP guidelines, this number is based on the desire to analyze any impacts that will be three percent or more of the existing CMP highway system facilities' capacity. The CMPHS includes specific roadways, which include State Highways and Super Streets, which are now known as Smart Streets, and CMP arterial monitoring locations/intersections. There is one CMP intersection that was evaluated within the traffic study area for the proposed project as follows:

- Beach Boulevard at Edinger Avenue

Therefore, the CMP TIA requirements relate to the potential impacts only on the one specified CMPHS Intersection.

(c) Orange County Growth Management Plan

In August 1988, Orange County adopted a Growth Management Plan, which presents a conceptual framework for coordinating traffic facilities and public facilities and services with new development. The Growth Management Plan also spawned several plans and programs, including the Development Monitoring Program, which evaluates the extent of new development and compliance with phasing requirements, and the Facilities Implementation Plans, which evaluate public facility needs and propose financing mechanisms.

The most comprehensive legislation affecting growth management is Measure M, approved by the County voters in November, 1990, and re-approved in 2006. The measure requires each jurisdiction in the County to adopt a Growth Management Element with specific contents and guidelines.

(4) Local

(a) General Plan Circulation Element

The following goals, objectives, and policies within the Huntington Beach General Plan are applicable to traffic and circulation.

Goal CE 2 Provide a circulation system which supports existing, approved and planned land uses throughout the City while maintaining a desired level of service on all streets and at all intersections.

- Objective CE 2.1 Comply with City's performance standards for acceptable levels of service.
  - Policy CE 2.1.1 Maintain a city-wide level of service (LOS) not to exceed LOS "D" for intersections during the peak hours.
- Objective CE 2.3 Ensure that the location, intensity and timing of new development is consistent with the provision of adequate transportation infrastructure and standards as defined in the Land Use Element.
  - Policy CE 2.3.1 Require development projects to mitigate off-site traffic impacts and pedestrian, bicycle, and vehicular conflicts to the maximum extent feasible.
  - Policy CE 2.3.2 Limit driveway access points and require adequate driveway widths onto arterial roadways and require driveways be located to ensure the smooth and efficient flow of vehicles, bicycles, and pedestrians.
  - Policy CE 2.3.4 Require that new development mitigate its impact on City streets, including but not limited to, pedestrian, bicycle, and vehicular conflicts, to maintain adequate levels of service.
- Objective CE 3.2 Encourage new development that promotes and expands the use of transit services.
  - Policy CE 3.2.1 Require developers to include transit facilities, such as park-and-ride sites, bus benches, shelters, pads or turn-outs in their development plans, where feasible as specified in the City's TDM ordinance.

Goal CE 5 Provide sufficient, well-designed, and convenient on and off-street parking facilities throughout the City.

- Objective CE 5.1 Balance the supply with the demand for parking.
  - Policy CE 5.1.2 Provide safe and convenient parking that has minimal impacts on the natural environment, the community image, and the quality of life.

Goal CE 6 Provide a city-wide system of efficient and attractive pedestrian, equestrian, and waterway facilities for commuter, school, and recreational use.

- Objective CE 6.1 Promote the safety of bicyclists and pedestrians by adhering to Caltrans and City-wide standards.
  - Policy CE 6.1.6 Maintain existing pedestrian facilities and require new development to provide pedestrian walkways and bicycle routes between developments, schools, and public facilities.
  - Policy CE 6.1.7 Require new development to provide accessible facilities to the elderly and disabled.
  - Policy CE 6.1.10 Implement appropriate traffic devices and operational programs throughout the community to ensure that conflicts between pedestrians, bicycles, and vehicles are minimized and safety enhanced.

2. ENVIRONMENTAL IMPACTS

a. Significance Thresholds

Appendix G of the CEQA Guidelines, the Initial Study Environmental Checklist form, includes questions relating to transportation/traffic that are utilized as the thresholds of significance in this section (Thresholds 1-10). The proposed project may create a significant environmental impact if it would result in one or more of the following:

Threshold 1: 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 (refer to Impact Statement 4.G-1).

Threshold 2: 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 (refer to impact statement 4.G-1).

Threshold 3: 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 (refer to Section 6, *Other CEQA Considerations*, and the Initial Study contained in Appendix A. No impact would occur in this regard.).

Threshold 4: Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (refer to Impact Statement 4.G-2).

Threshold 5: Result in inadequate emergency access (refer to Section 6, *Other CEQA Considerations*, and the Initial Study contained in Appendix A. A less than significant impact would occur in this regard.).

Threshold 6: Result in inadequate parking capacity (refer to Impact Statement 4.G-3).

Threshold 7: Conflict with adopted policies, plans, or programs regarding alternative transportation (refer to Impact Statement 4.G-4).

b. Methodology

The following impact analysis is based on Austin-Foust Associates, Inc.'s Center Avenue Skate Park Traffic Analysis (included in Appendix E of this EIR).

(1) Intersections

The Traffic Study provides a near term (existing year) analysis, and short-range and long-range impact analyses of the proposed project. In addition, a special events traffic analysis is provided. The near term analysis examines the existing-plus-project impacts and is compared against existing conditions to satisfy the California Environmental Quality Act (CEQA) requirements. The short-range analysis addresses conditions shortly after project completion and identifies project impacts related to additional traffic on the surrounding area street system in this timeframe. The long-range analyzes the project in a General Plan context.

Traffic analysis data sets presented in this analysis are thereby as follows:

1. Existing Conditions
2. Existing plus project
3. Short-range no-project
4. Short-range with-project
5. Long-range with-project
6. Long-range with current General Plan uses on the site
7. Special Event Conditions

For the short-range impact analysis, the additional trips that would be generated by the proposed uses are added to the no-project background traffic conditions to show the impacts of the proposed project. The background (no-project) conditions are established by interpolating between existing and long-range traffic volumes. This accounts for ambient growth, including development anticipated to occur in the surrounding area in this short-range time frame. The short-range analysis time frame is referred to as 2016, which is after anticipated project occupancy (expected in 2012). It thereby fully accounts for project buildout and also addresses Growth Management Plan (GMP) and CMP needs for a short-range (five to seven years) time frame.

The long-range analysis compares the current General Plan land uses with those proposed by the proposed project. A year 2030 time frame is used for this analysis. The year 2030 forecasts are produced using the Huntington Beach Traffic Model (HBTM). This is a certified subarea model derived from the Orange County Transportation Analysis Model (OCTAM), following the consistency guidelines established by the Orange County Transportation Authority (OCTA).

Performance criteria appropriate for the jurisdictions involved (City of Westminster, Caltrans and the City of Huntington Beach) are applied to the traffic volume data. These performance criteria use peak hour intersection volumes to measure level of service (LOS) and to define levels of significance for EIR purposes (see below).

To establish the trip generation estimates for the proposed project, a special analysis has been carried out to identify applicable trip rates for the proposed skate park. Local skate parks within Orange County were surveyed, and a trip rate derived from the count data.

Consistent with the requirements of an EIR, only committed roadway improvements have been assumed (as described above), even for the long-range analysis using General Plan buildout land uses.

For the Special Events traffic analysis, the special event project volumes were added to the 2030 no-project weekend volumes by assigning the special event trips according to the trip distribution. The resulting traffic conditions were compared to the performance criteria described below.

(a) Thresholds of Significance

With regards to evaluating impacts to intersections, the performance criteria used for evaluating traffic volumes and capacities on the study area street system are based on peak hour volumes. Using peak hour intersection turn movement volumes and the intersection lane geometry, intersection capacity utilization (ICU) values are calculated for each of the A.M. and P.M. peak hours. The ICU values represent volume/capacity (V/C) ratios for these time periods, and thereby provide a suitable measure of system performance. For Caltrans intersections, the delay based methodology, as contained in the Highway Capacity Manual (HCM), is also used (i.e., both ICU values and average delay are calculated for these intersections).

Table 4.G-4, *Performance Criteria – Intersections*, summarizes the criteria used for the intersection LOS calculations and the relationship between ICU, average vehicle delay, and LOS. The significance criteria for intersections based on ICU contribution is also listed in the table. This is used for both City and Caltrans intersections (the delay calculations are used only to verify the LOS results as calculated from the ICU values). As shown in Table 4.G-4, LOS "D" (ICU not to exceed .90) is the performance standard that has been adopted by the Cities of Huntington Beach and Westminster.

(2) Freeway Ramps

Freeway interchange ramps are also included in the analysis and **Table 4.G-5**, *Freeway Ramp Performance Criteria*, summarizes the criteria used for freeway ramps. The analysis is based on peak hour V/C ratios, with capacity being a function of the particular operating characteristics of each ramp.

(3) CMP Intersections

The analysis of project traffic in relation to the regional transportation system is conducted according to the CMP. The regional transportation system analysis determines if project-generated trips would exceed the CMP thresholds requiring additional analysis of CMP freeway or intersection locations. If such CMP analysis is needed, the project's traffic volumes are compared to the significance threshold to determine whether the proposed project would result in a significant impact on CMP facilities.

LOS "E" (ICU not to exceed 1.00) is the performance standard for Orange County CMP intersections. One CMP intersection is located in the study area: Beach Boulevard at Edinger Avenue.

Although LOS "E" is acceptable for CMP purposes at this location, the City performance standard of LOS "D" is typically used in traffic analysis applications.

(4) Design Hazards

A review of the site plans is conducted to determine potential land use compatibility impacts with surrounding uses. In addition, the section analyzes the level of service at the main access point to the project site to determine whether any circulation-related hazards could occur.

Table 4.G-4

Performance Criteria - Intersections

I. PEAK HOUR INTERSECTION VOLUMES

Intersection capacity utilization (ICU) values calculated as follows:

Saturation Flow Rate: 1,700 vehicles per hour (VPH)
Clearance Interval: .05 ICU

Performance Standard

- Arterial intersections to achieve level of service (LOS) D or better (ICU not to exceed .90)
- Orange County Congestion Management Program (CMP) designated intersections to achieve LOS E or better (ICU not to exceed 1.00)

LOS ranges for ICU values are as follows:

ICU	LOS
0.00-0.60	A
0.61-0.70	B
0.71-0.80	C
0.81-0.90	D
0.91-1.00	E
Above 1.00	F

Significance Criteria

Project causes a significant impact if it contributes .01 or more to an ICU when the performance standard is exceeded.

II. CALTRANS INTERSECTIONS AND UNSIGNALIZED ACCESS INTERSECTIONS

Intersection LOS based on average vehicle delay in seconds as calculated using Highway Capacity Manual (HCM) procedures. Performance standard as above, and LOS values for average vehicle delay are as follows:

LOS	Signalized	Unsignalized
A	0-10.00	0-10.00
B	10.01-20.00	10.01-15.00
C	20.01-35.00	15.01-25.00
D	35.01-55.00	25.01-35.00
E	55.01-80.00	35.01-50.00
F	80.01 and up	50.01 and up

Source: Center Avenue Skate Park Traffic Analysis, prepared by Austin-Foust Associates, Inc., dated December 2011.

(5) Parking

The analysis of parking impacts includes a determination of whether the project's parking supply would meet the estimated parking demand on-site. The parking analysis considers typical day-to-day and special event parking needs.

(6) Alternative Transportation

The methodology for this analysis includes a review of relevant alternative transportation regulations, plans, and policies and a determination of whether the proposed project would conflict with these regulations, plans, and policies.

Table 4.G-5

Freeway Ramp Performance Criteria

V/C Calculation Methodology

Level of service to be based on peak hour volume/capacity (V/C) ratios calculated using the following ramp capacities:

Metered On-Ramps

- A maximum capacity of 900 vehicles per hour (vph) for a one-lane metered on-ramp with only one mixed-flow lane at the meter.
- A maximum capacity of 1,080 (20 percent greater than 900) vph for a one-lane metered on-ramp with one mixed-flow lane at the meter plus one HOV preferential lane at the meter.
- A maximum capacity of 1,500 vph for a one-lane metered on-ramp with two mixed-flow lanes at the meter.
- A maximum capacity of 1,800 vph for a two-lane metered on-ramp with two mixed-flow lanes at the meter.

Non-Metered On-Ramps and Off-Ramps

- A maximum capacity of 900 vehicles per hour (vph) for a one-lane metered on-ramp with only one mixed-flow lane at the meter.
- A maximum capacity of 1,080 (20 percent greater than 900) vph for a one-lane metered on-ramp with one mixed-flow lane at the meter plus one HOV preferential lane at the meter.
- A maximum capacity of 1,500 vph for a one-lane metered on-ramp with two

mixed-flow lanes at the meter.
- A maximum capacity of 1,800 vph for a two-lane metered on-ramp with two mixed-flow lanes at the meter.

Performance Standard

Level of Service "E" (peak hour V/C less than or equal to 1.00)

Significance Criteria

Project causes a significant impact if it contributes .01 or more to a ramp V/C ration when the performance standard is exceeded.

Source: Center Avenue Skate Park Traffic Analysis, prepared by Austin-Foust Associates, Inc., dated December 2011.

c. Project Features

The skate park would be open to the public and operate seven days a week. Times of operation would be weekdays from 10:00 A.M. to 10:00 P.M. and weekends from 10:00 A.M. to 10:00 P.M..

The proposed project would include both a paved main parking lot with a minimum of 24 regular stalls and two handicapped accessible stalls, as well as a temporary gravel parking lot that can accommodate approximately 40 normal passenger vehicles. A drop-off area would be located in the main parking lot. The main parking lot will front Center Avenue and a secondary parking area will be accessed via McFadden Avenue for special events only. During special events, guests arriving by vehicle would be directed to the surface parking lots at the Huntington Beach Sports Complex, located approximately 2.8 miles south of the project site, which has a total of 850 parking stalls. Guests would be transported to and from the skate park via shuttle buses. Signage and/or parking attendants would be present to direct visitor vehicular traffic to the off-site parking area and direct pedestrians to the skate park area during such major events. Prior to scheduling events, the project operator/owner would coordinate with the City of Huntington Beach Community Services Department to allocate appropriate parking stall reserves at the Huntington Beach Sports Complex. To ensure adequacy of parking, the project operator/owner would schedule major events on days where no events are planned at the Sports Complex.

The access fronting Center Avenue will serve as the main entrance into the skate park, with parking lots and drop-off. The access from McFadden Avenue will serve as temporary access for vendor parking during special events (about 15 events per year).

d. Effects Found Not To Be Significant

Threshold	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?

The project site is not located near an airport and implementation of the proposed project would not have any effect on air traffic patterns. No impacts would occur and further evaluation of this issue in an EIR is not required.

Threshold	Would the project result in inadequate emergency access?

The proposed project's plans would be subject to review and approval by the City of Huntington Beach and Huntington Beach Fire Department, including site access and circulation plans, which would serve to ensure that adequate vehicular access for emergency vehicles is provided. In addition, mitigation measures MM4.6-4 and MM4.13-1 through MM4.13-18 and City requirement CR4.13-1 contained in the BECSP EIR would be implemented to ensure that impacts remain less than significant. Given compliance with Huntington Beach Fire Department access requirements per Section 902 of the Huntington Beach Fire Code and implementation of any other applicable City requirements and mitigation measures, impacts related to emergency access would be less than significant and further analysis of this issue in an EIR is not required.

e. Analysis of Project Impacts

The proceeding analysis of project impacts includes six "Impacts Statements": 4.G-1 to 4.G-6.

(1) Traffic Impacts

Threshold	Would the project 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?
Threshold	Would the project 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?

4.G-1 Implementation of the project would contribute traffic to the roadway network. The number of trips would be less than that associated with the current General Plan designation. The increase in traffic generated by the project would not result in traffic conditions at intersections (including CMP intersections) or freeway ramps which exceed adopted local traffic standards.

(a) Construction

Construction of the proposed project is anticipated to commence in Summer 2012 and take approximately five months to complete. The first phase of the construction process would be site clearing, debris removal, grubbing, grading, and staging occurring over approximately one month; followed by trenching and installation of stormwater facilities and other utilities for about one month; skate park and retail building construction for approximately two months; and installation of landscaping, lighting, irrigation, and signage for one month. As earthwork would be balanced on-site, no haul truck trips associated with export/import of soils would occur. The proposed project is anticipated to be completed by Fall 2012.

Construction traffic generally occurs prior to the peak period, consistent with the typical construction work day of 7:00 A.M. to 3:00 P.M. Further, several arterial roadways in the project vicinity are designated truck routes in the City General Plan Circulation Element (Figure CE-7). Specifically, Edinger Avenue, Goldenwest Street, and Bolsa Avenue are designated truck routes and are easily accessible from the project site. Access

to the I-405 freeway is available from Center Avenue to the east. McFadden Avenue to the north is considered a State Highway between Gothard Street and Goldenwest Street in the City of Huntington Beach General Plan Circulation Element. Easy access to State Freeways would eliminate truck traffic in the surrounding arterial streets. Truck trips could travel along designated truck routes north/east to I-405 or south to Pacific Coast Highway. Due to the relatively minor number of truck trips associated with construction of the proposed project and due to the temporary nature of construction activities, truck trips due to construction activities at the project site would not be anticipated to cause a substantial increase in traffic volumes and delays in the project area. As such, construction-related traffic impacts would be less-than-significant.

(b) Operation

(i) Project Trip Generation

Table 4.G-6, *Trip Generation*, summarizes the trip generation for the proposed project. As shown, the proposed project would generate 416 daily weekday trips at buildout, with 13 trips in the A.M. peak hour and 62 trips in the P.M. peak hour. Trip generation rates for the project land uses were derived from surveys of local skate parks located within Orange County that have similar characteristics to the proposed project (see discussion in Appendix D of the Traffic Study). Please refer to Figure 3-2 in the Traffic Study for an illustration of the project's trip distribution on the local roadways. **Figure 4.G-5**, *ADT Volumes – Project Only*, illustrates the ADT project trips for the proposed project.

Table 4.G-6

Trip Generation

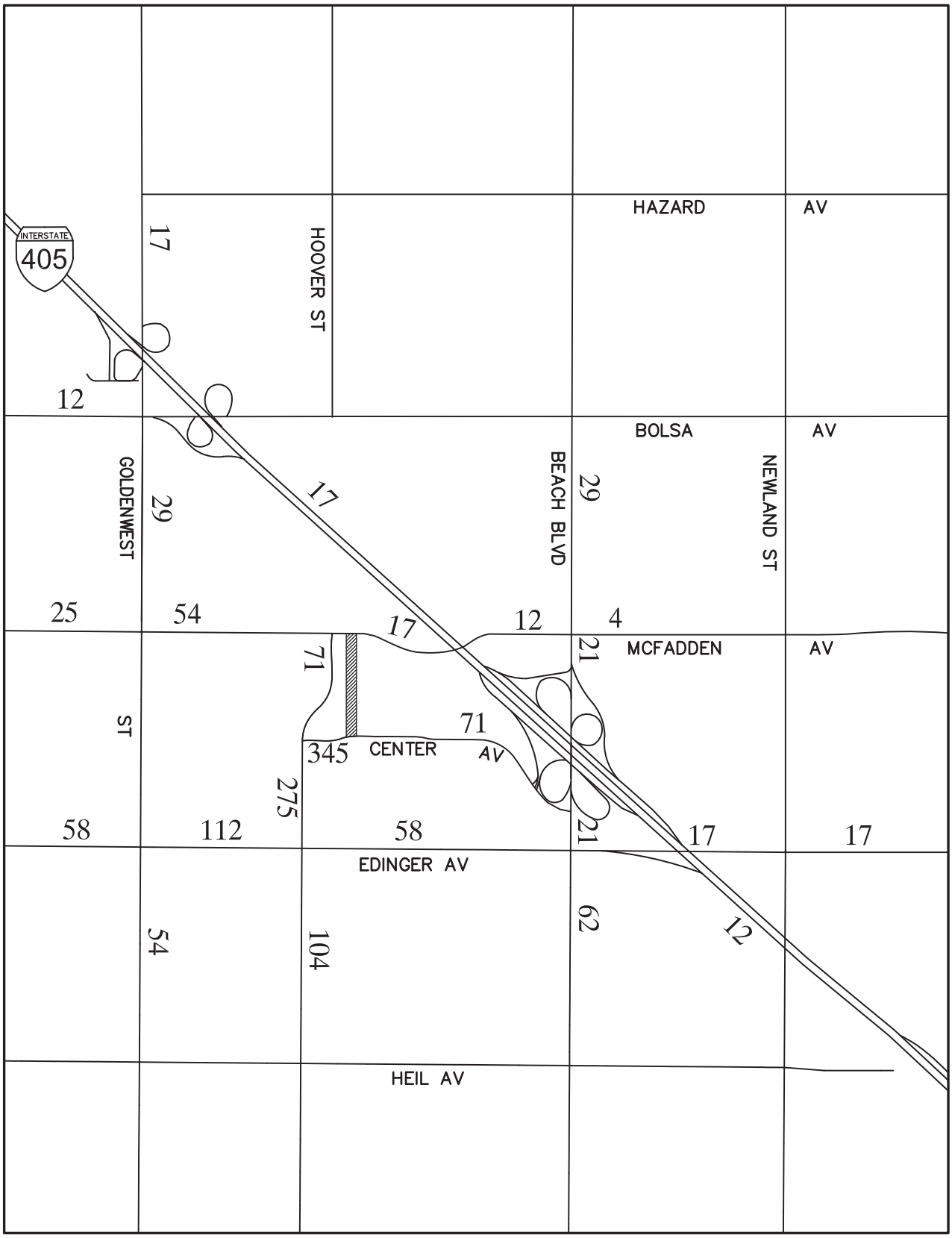
		A.M. Peak Hour			P.M. Peak Hour			
Project Description	**Amount**	**In**	**Out**	**Total**	**In**	**Out**	**Total**	**ADT**
Proposed Project								
Skate Park	45.5 TSF	7	6	13	29	33	62	416
				Current General Plan				
Residential Units	175 DU	17	72	89	70	39	109	1,176
Proposed Project Difference From General Plan (%)				-85%			-43%	-65%

		A.M. Peak Hour			P.M. Peak Hour			
Trip Rates	**Unit**	**In**	**Out**	**Total**	**In**	**Out**	**Total**	**ADT**
Land Use								
Skate Park[a]	TSF	.16	.14	.30	.63	.73	1.36	9.14
Residential Units[b]	DU	.10	.41	.51	.40	.22	.62	6.72

a Derived from trip survey data for similar skate parks.

b Trips based on ITE (8th Ed.) Apartment (220) rates.

Source: Center Avenue Skate Park Traffic Analysis, prepared by Austin-Foust Associates, Inc., dated December 2011.



Legend

Project Site

Not to scale

ADT Volumes - Project Only

Center Avenue Skate Park Project

Source: Austin-Foust Associates, Inc., 2011.

FIGURE

4-G-5

PCR

The project site has a General Plan designation of Mixed-Use Specific Plan Overlay – Design Overlay. The General Plan Housing Element specifies that the site shall be shall be designated as "Residential Only" in the Beach and Edinger Corridors Specific Plan and that the City intends for the site to be developed with a minimum of 175 affordable units. The proposed project is proposing a General Plan Amendment (GPA) to allow the development of the skate park by lifting the "Residential Only" requirement. The trip generation for the 175 residential units under the General Plan is also summarized in Table 4.G-6. As shown in the table, the residential units under the General Plan would generate 1,176 daily weekday trips at buildout, with 89 trips in the A.M. peak hour and 109 trips in the P.M. peak hour. The proposed project is a 65 percent reduction in daily trips when compared to the current General Plan projections. The A.M. and P.M. peak hours show similar reductions.

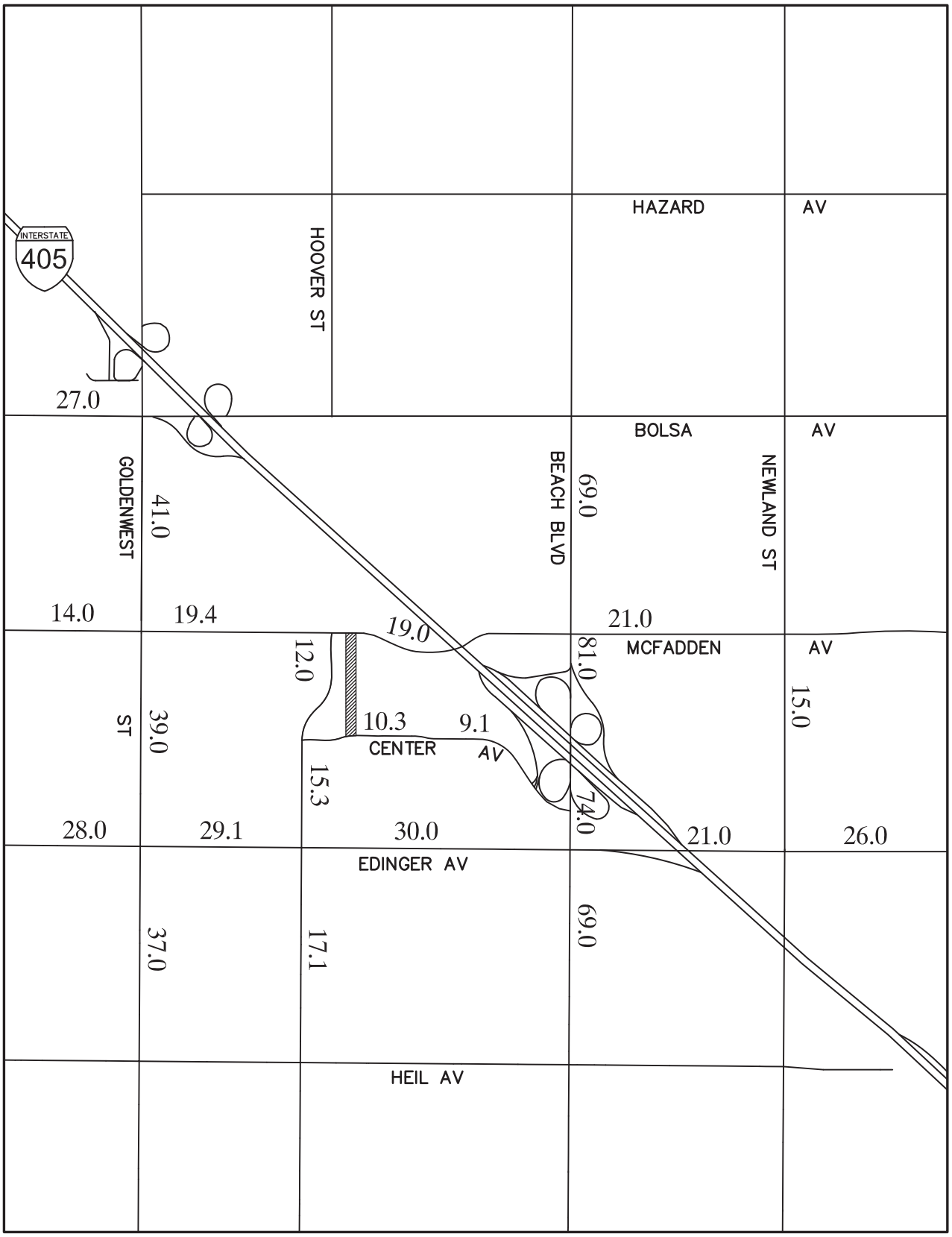
(ii) Existing Plus Project Conditions

The purpose of the existing plus project analysis is to comply with the CEQA, which requires that the baseline for assessing environmental impacts is the existing conditions at the time the notice of preparation (NOP) is prepared. The information presented in this section shows the traffic volumes obtained by adding traffic from the proposed project to existing traffic data. The analysis is hypothetical because the actual buildout timeframe of the proposed project is year 2012 or later. The ADT forecasts were prepared for a scenario in which traffic generated by the proposed project is added to the existing traffic conditions based on the project trip distribution defined above.

Figure 4.G-6, *Existing Plus Project ADT Volumes* (000s), shows the ADT volumes for existing plus project conditions.

The corresponding A.M. and P.M. peak hour intersection volumes for existing-plus-project can be found in Appendix A of the Traffic Study. To derive the with-project volumes, the project-only peak hour intersection volumes (also shown in Appendix A) were added to the existing (no-project) conditions volumes. The corresponding ICU values were then calculated and used to identify project impacts. For Caltrans intersections, separate calculations were made using HCM delay methodology, and the HCM worksheets can be found in Appendix C of the Traffic Study, which is included as Appendix E to this EIR.

A summary of existing and existing-plus-project intersection performance is based on existing lane configurations. **Table 4.G-7**, *Existing Plus Project ICU Summary*, lists the ICU values, the average vehicle delay for Caltrans intersections, and the LOS for the study area intersections. As can be seen in the table, all intersections meet the performance criteria and there are no significant project impacts.



Legend

Project Site

Not to scale

Existing Plus Project ADT Volumes (000s)

Center Avenue Skate Park Project

Source: Austin-Foust Associates, Inc., 2011.

FIGURE

4-G-6

PCR

Table 4.G-7

Existing-Plus-Project ICU Summary

	No-Project				With Project			
	AM		PM		AM		PM	
Intersection	ICU	LOS	ICU	LOS	ICU	LOS	ICU	LOS
8. Goldenwest St & Bolsa Ave	.64	B	.86	D	.64	B	.86	D
15. Goldenwest St & McFadden Ave	.68	B	.72	C	.68	B	.72	C
16. Gothard St & McFadden Ave	.48	A	.51	A	.48	A	.51	A
17. Gothard St & Center Ave	.28	A	.47	A	.28	A	.48	A
18. I-405 SB Ramps & Center Ave	.40	A	.75	C	.40	A	.75	C
19. Beach Blvd & Center Ave.	.54	B	.63	B	.54	B	.63	B
26. Goldenwest St & Edinger Ave	.62	B	.60	A	.62	B	.60	A
27. Gothard St & Edinger Ave	.41	A	.57	A	.41	A	.57	A
28. Beach Blvd & Edinger Ave	.64	C	.78	D	.64	C	.78	D
29. Newland St & Edinger Ave	.61	C	.61	B	.61	C	.61	B
203. Beach Blvd & McFadden Ave	.78	C	.81	D	.78	C	.81	D
Highway Capacity Manual (HCM) Delay (Caltrans Intersections)								
	AM		PM		AM		PM	
Location	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
18. I-405 SB Ramps & Center Ave	27.0	C	41.4	D	27.0	C	41.4	D
19. Beach Blvd & Center Ave	8.4	A	7.8	A	8.4	A	7.8	A
28. Beach Blvd & Edinger Ave	28.2	C	33.2	C	28.3	C	33.2	C
203. Beach Blvd & McFadden Ave	34.6	C	40.4	D	34.6	C	40.4	D

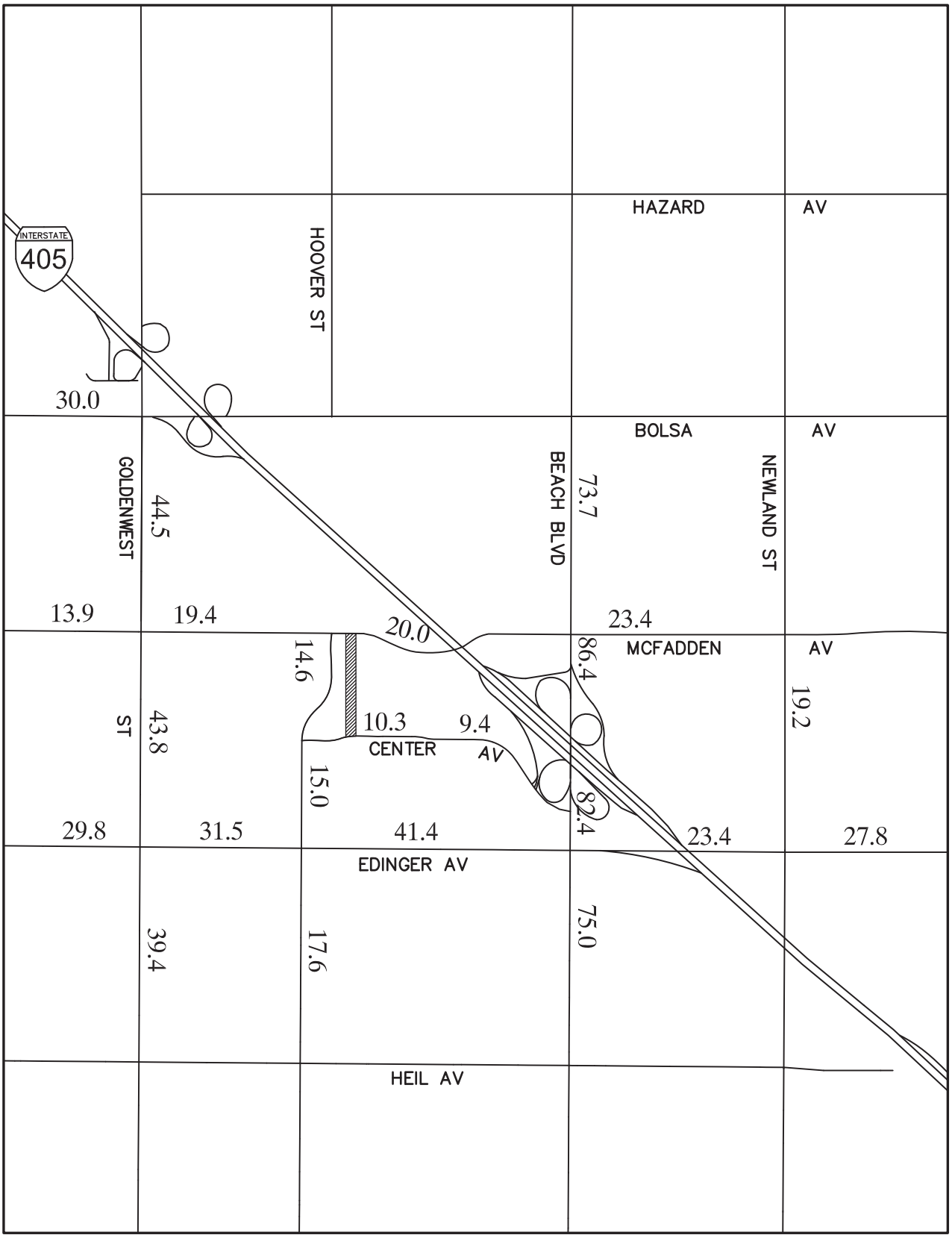
Note: Shading with bold font denotes intersection that exceeds the performance standard

Source: Center Avenue Skate Park Traffic Analysis, prepared by Austin-Foust Associates, Inc., dated December 2011.

(iii) Short-Range Analysis

The short-range analysis compares no development on the project site to buildout of the proposed project for a 2016 time frame. The 2016 no-project volumes were estimated by interpolating between existing and 2030, and then project traffic was added to these background volumes. ADT volumes for 2016 are illustrated in **Figure 4.G-7**, *2016 ADT Volumes (000s) – With Project*.

Table 4.G-8, *2016 ICU Summary,* lists the ICU values, the average vehicle delay for Caltrans intersections, and LOS for the study area intersections. As can be seen here, all intersections with one exception (8. Goldenwest St & Bolsa Ave) meet the performance criteria and the proposed project does not have a significant impact at this deficient location. Thus, the proposed project would result in less than significant traffic impacts under the short-range (2016) scenario.



Legend

Project Site

PCR

Not to scale

2016 ADT Volumes (000s) - With Project

Center Avenue Skate Park Project

Source: Austin-Foust Associates, Inc., 2011.

FIGURE

4-G-7

Table 4.G-8

2016 ICU Summary

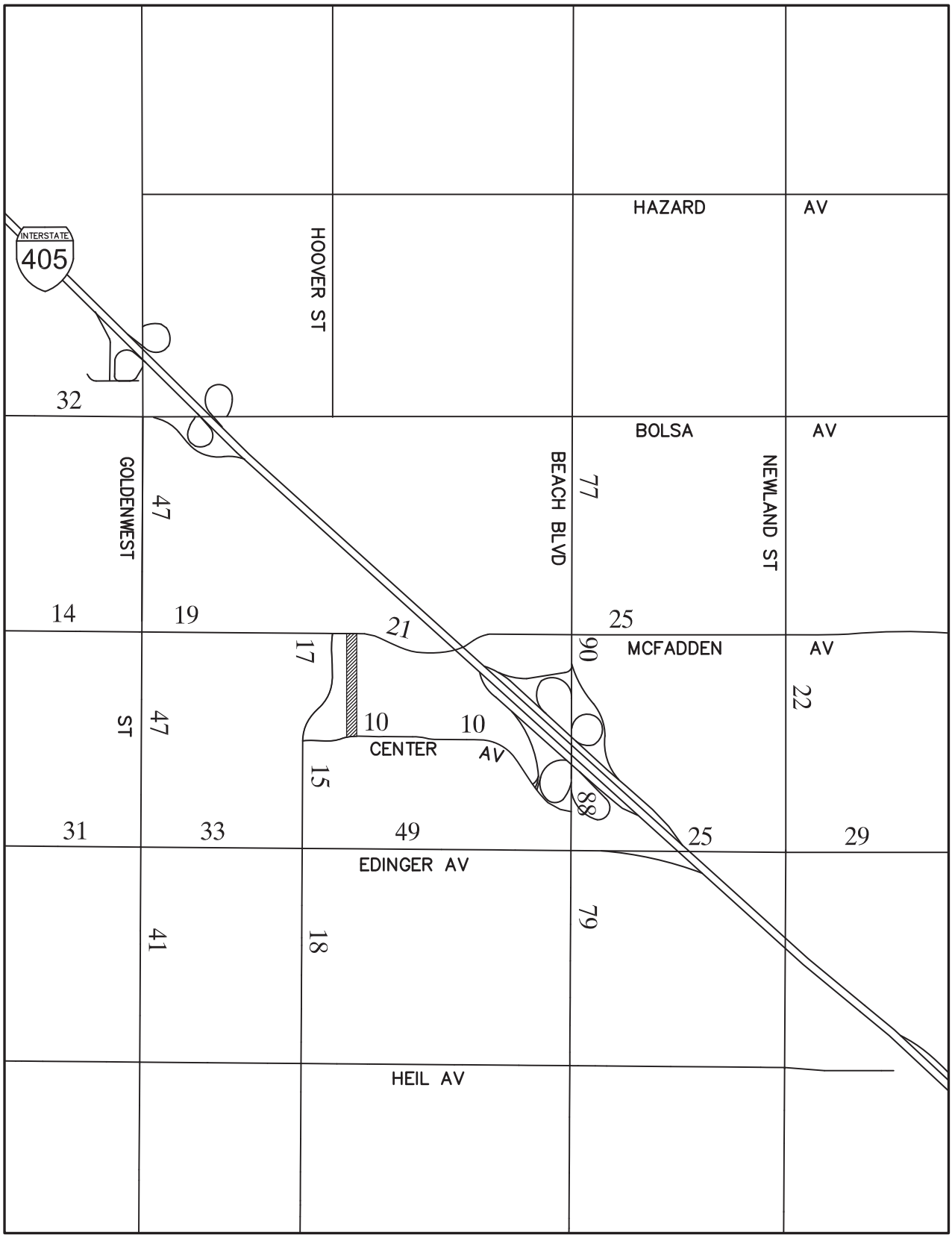
	No-Project				With Project			
	AM		PM		AM		PM	
Intersection	ICU	LOS	ICU	LOS	ICU	LOS	ICU	LOS
8. Goldenwest St & Bolsa Ave	.82	D	**.97**	**E**	.82	D	**.97**	**E**
15. Goldenwest St & McFadden Ave	.71	C	.75	C	.71	C	.75	C
16. Gothard St & McFadden Ave	.57	A	.60	A	.57	A	.60	A
17. Gothard St & Center Ave	.32	A	.52	A	.32	A	.53	A
18. I-405 SB Ramps & Center Ave	.47	A	.81	D	.47	A	.81	D
19. Beach Blvd & Center Ave.	.64	B	.71	C	.64	B	.71	C
26. Goldenwest St & Edinger Ave	.62	B	.68	B	.62	B	.68	B
27. Gothard St & Edinger Ave	.49	A	.58	A	.49	A	.61	B
28. Beach Blvd & Edinger Ave	.80	C	.90	D	.80	C	.90	D
29. Newland St & Edinger Ave	.76	C	.73	C	.76	C	.73	C
203. Beach Blvd & McFadden Ave	.81	D	.86	D	.81	D	.86	D
Highway Capacity Manual (HCM) Delay (Caltrans Intersections)								
	AM		PM		AM		PM	
Location	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
18. I-405 SB Ramps & Center Ave	28.2	C	46.3	D	28.2	C	46.3	D
19. Beach Blvd & Center Ave	8.3	A	9.1	A	8.3	A	9.1	A
28. Beach Blvd & Edinger Ave	32.1	C	43.3	D	32.2	C	43.4	D
203. Beach Blvd & McFadden Ave	35.3	D	44.8	D	35.3	D	44.8	D

Note: Shading with bold font denotes intersection that exceeds the performance standard

Source: Center Avenue Skate Park Traffic Analysis, prepared by Austin-Foust Associates, Inc., dated December 2011.

(iv) Long-Range Analysis

As discussed in the methodology section, the long-range analysis compares the current General Plan to the proposed project. The 2030 ADT volumes for the current General Plan can be seen in **Figure 4.G-8**, *2030 ADT Volumes (000s) – Current General Plan*, and intersection volumes for current General Plan conditions can be found in Appendix A of the Traffic Study. These form the baseline against which the proposed project is compared. **Figure 4.G-9**, *2030 ADT Volumes (000s) – With Project*, shows the actual 2030 ADT volumes with the proposed project.



Legend

Project Site

Not to scale

2030 ADT Volumes (000s) - Current General Plan

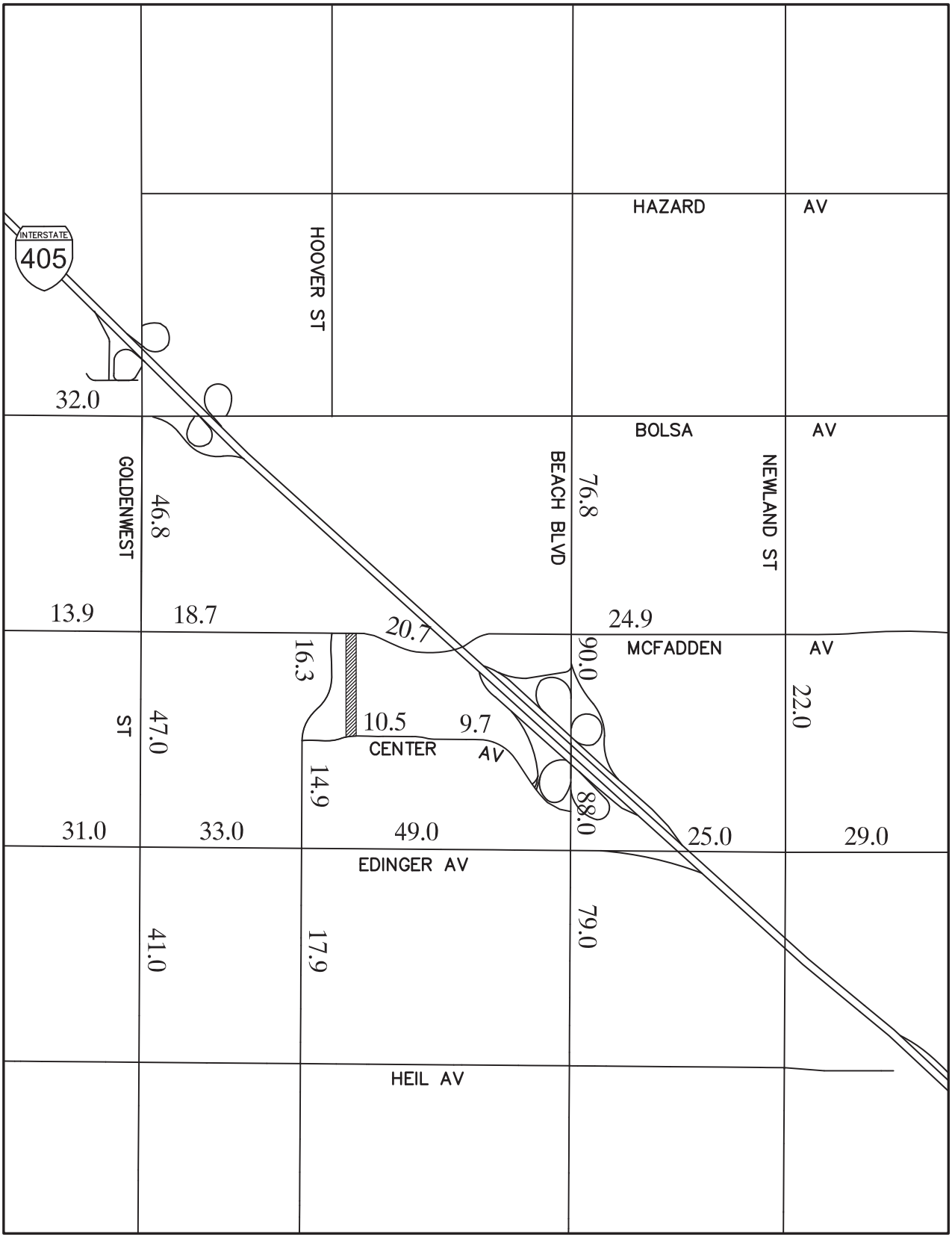
Center Avenue Skate Park Project

Source: Austin-Foust Associates, Inc., 2011.

FIGURE

4-G-8

PCR



Legend

Project Site

Not to scale

2030 ADT Volumes (000s) - With Proposed Project

Center Avenue Skate Park Project

Source: Austin-Foust Associates, Inc., 2011.

FIGURE

4-G-9

PCR

With-project 2030 A.M. and P.M. peak hour intersection volumes were derived by first subtracting out the trips associated with the 175 residential units (allowed under the current General Plan) to give no project volumes. The project volumes were then added to the 2030 no-project volumes.

A summary of the 2030 ICU values, average vehicle delay for Caltrans intersections, and LOS can be found in **Table 4.G-9**, *2030 ICU Summary*. As shown in the table, all but the three intersections listed below meet the performance criteria, and the proposed project does not have a significant impact at these deficient locations:

- 8. Goldenwest St & Bolsa Ave
- 28. Beach Blvd & Edinger Ave
- 203. Beach Blvd & McFadden Ave

Table 4.G-9

2030 ICU Summary

	No-Project				With Project			
	AM		PM		AM		PM	
Intersection	ICU	LOS	ICU	LOS	ICU	LOS	ICU	LOS
8. Goldenwest St & Bolsa Ave	**.93**	**E**	**1.04**	**F**	**.92**	**E**	**1.04**	**F**
15. Goldenwest St & McFadden Ave	.73	C	.81	D	.73	C	.81	D
16. Gothard St & McFadden Ave	.65	B	.67	B	.64	B	.66	B
17. Gothard St & Center Ave	.37	A	.59	A	.37	A	.58	A
18. I-405 SB Ramps & Center Ave	.55	A	.86	D	.54	A	.86	D
19. Beach Blvd & Center Ave.	.71	C	.76	C	.71	C	.76	C
26. Goldenwest St & Edinger Ave	.66	B	.72	C	.66	B	.72	C
27. Gothard St & Edinger Ave	.57	A	.65	B	.57	A	.65	B
28. Beach Blvd & Edinger Ave	.90	D	**.98**	**E**	.90	D	**.98**	**E**
29. Newland St & Edinger Ave	.87	D	.81	D	.87	D	.81	D
203. Beach Blvd & McFadden Ave	.86	D	**.92**	**E**	.85	D	**.92**	**E**
Highway Capacity Manual (HCM) Delay (Caltrans Intersections)								
	AM		PM		AM		PM	
Location	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
18. I-405 SB Ramps & Center Ave	28.6	C	44.9	D	28.6	C	44.9	D
19. Beach Blvd & Center Ave	11.2	B	10.0	B	11.2	B	10.1	B
28. Beach Blvd & Edinger Ave	37.5	D	**58.6**	**E**	37.5	D	**58.7**	**E**
203. Beach Blvd & McFadden Ave	38.2	D	52.4	D	38.2	D	52.5	D

Note: Shading with bold font denotes intersection that exceeds the performance standard

Source: Center Avenue Skate Park Traffic Analysis, prepared by Austin-Foust Associates, Inc., dated December 2011.

The three intersections show a cumulative deficiency (i.e., location is deficient both without- and with-proposed project).

For the intersections at LOS "E" or worse, a determination was made as to whether the project contribution to the ICU amounted to one percent or more. This was carried out by summing the project traffic ICU contribution to each critical movement in the ICU calculation. It should be noted that this is different than the proposed project versus General Plan traffic volumes used in the ICU comparisons since it uses actual project volumes rather than difference volumes (i.e., General Plan versus proposed project). It is intended to show how development of this site will contribute to long-range deficiencies at the identified locations.

The project contribution results for the proposed project are as follows:

Location	A.M./P.M.	Project ICU
8. Goldenwest St & Bolsa Ave	A.M. P.M.	.000 .000
28. Beach Blvd & Edinger Ave	P.M.	.000
203. Beach Blvd & McFadden Ave	P.M.	.001

Hence, the proposed project does not have a significant contribution to the three long-range deficiencies. Thus, the project would result in less than significant traffic impacts under the long-range (2030) scenario.

(v) Weekend and Summer Trip Generation

The future trip generation presented in the short- and long range analyses above represent average weekday non-summer conditions. As discussed previously, the trip generation rates were based on survey data of similar skate parks in Orange County. Since weekend and summer usage can result in higher visitor/traffic volumes, counts were taken during the weekend and summer for similar skate parks in Orange County (see Appendix D of the Traffic Study) and trip rates were derived for weekend and summer usage.

Table 5-1 in the Traffic Study summarizes the trip generation estimates for weekend and summer. As illustrated therein, the weekend trip generation shows increases over the corresponding weekday trip generation for midday (12:00 – 1:00 P.M.), P.M. peak hour (4:00 – 6:00 P.M.) and daily trip generation. For summer, the daily trip generation is higher than the weekday daily trip generation; however the peak hour traffic is lower since the traffic is spread out over a longer period during the day. Peak hours for weekday summer are the same for traditional weekday (7:00 – 9:00 A.M. and 4:00 – 6:00 P.M.). Because the peak hour traffic for weekend and summer traffic conditions would be less than that of the weekday conditions (which impacts were previously shown to be a less than significant), traffic impacts for the weekend and summer traffic conditions would be less than significant.

(vi) Special Event Analysis

Special Event Trip Generation

A special analysis was made of the traffic impacts for major special events, which are expected to draw up to 2,500 spectators per event day. These visitors would arrive in 910 cars (based on an estimated 2.75 vehicle occupancy), which results in 1,820 total daily trips. This is a 140 percent increase over the typical weekend daily trips. This 140 percent increase was then applied to the mid-day weekend peak hour trip generation to derive the special event mid-day trip generation. **Table 4.G-10**, *Trip Generation for Special Events*, summarizes the midday trip generation for the special events.

Table 4.G-10

Trip Generation for Special Events

Land Use	Amount	Mid-day Peak Hour[a] In	Out	Total	ADT
WEEKEND SPECIAL EVENT					
Skate Park	45.5 TSF	107	97	204	1,820
Increase over Weekend Non-special event				*140%*	*140%*
Land Use	**Amount**	**Mid-day Peak Hour[a] In**	**Out**	**Total**	**ADT**
WEEKEND NON-SPECIAL EVENT					
Skate Park	45.5 TSF	45	40	85	756

[a] *Peak hour of mid-day is 12-1 PM.*

Source: Center Avenue Skate Park Traffic Analysis, prepared by Austin-Foust Associates, Inc., dated December 2011.

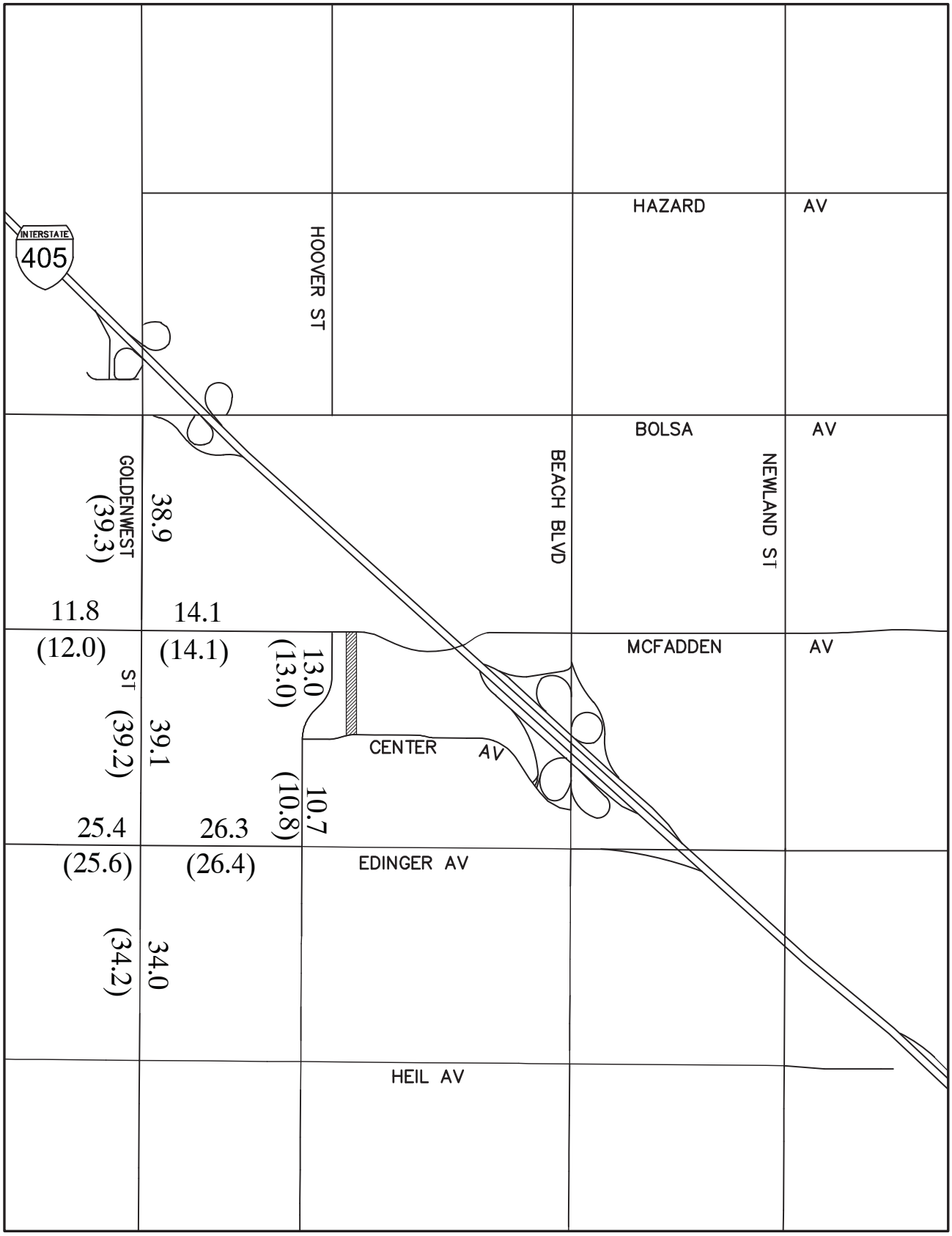
During these special events, visitors would be directed to park their vehicles at the Huntington Beach Sports Complex located at 18100 Goldenwest Street. The trip distribution for such special events is assumed to be different for typical weekday/weekend distribution due to the regional attraction of these events and because visitors will be directed to the remote parking lot at the Sports Complex. Figure 5-5 in the Traffic Study illustrates the trip distribution for the special events traffic. The trip distribution assumes that five percent of the trips to/from project site will be drop-offs and that 95 percent of the trips will use the remote parking lot. The 910 vehicles are not expected to cause an overflow at this location due to variable arrivals and departures, and hence the maximum parking demand is somewhat less than the 910 vehicle arrivals.

Special Event Traffic Analysis

The analysis of special event traffic focuses on weekend peak hour traffic impacts during periodic special events, which would only occur during weekends throughout the year, under future 2030 conditions. The 2030 no-project daily volumes were derived by applying a factor of 0.85 to the weekday ADT to estimate weekend ADT volumes. The 2030 timeframe was identified as the sole analysis year, and was chosen to represent a worst-case scenario due to the cumulative growth expected to occur in the area surrounding the proposed project. The 0.85 factor is a "rule of thumb" in the traffic engineering industry. It is based on recent studies, which have documented that "on average, Saturday volumes generally are 11 percent lower and Sunday volumes are 26 percent lower than average weekday volumes."[1] The special event project volumes were then added to the 2030 no-project weekend volumes by assigning the special event trips according to the trip distribution defined earlier. **Figure 4.G-10**, *2030 Weekend ADT Volumes (000s) – With Special Event Traffic*, illustrates the ADT volumes for without- and with-special event project. As can be seen, the difference in the ADT volumes is 1,000 vehicles per day on all roadway segments.

A weekend survey of four intersections was performed in November 2011 to assist in the forecast of the 2030 no-project peak hour volumes. The four intersections were chosen because of the confluence of

[1] *Collection and Analysis of Weekend/Weekday Emissions Activity Data in the South Coast Air Basin (Sonoma Technology Inc.), May 7, 2004*



Legend

- Project Site
- XX Without Special Event ADT Volume
- YY With Special Event ADT Volume

P C R

N

Not to scale

2030 Weekend ADT Volumes (000s) – With Special Event Traffic

Center Avenue Skate Park Project

Source: Austin-Foust Associates, Inc., 2011.

FIGURE

4-G-10

weekend activity that occurs near the proposed project: Goldenwest swap meet, Westminster mall activity and Bella Terra mall activity. Factors were derived for each turning movement based on the relationship between the existing weekday/weekend count data. These same factors were then applied to the 2030 no-project weekday peak hour volumes to derive the 2030 no-project weekend volumes (Appendix D in the Traffic Study summarizes the individual factors). The special event traffic was then added to the no-project data to derive the 2030 with-special event scenario.

A summary of the 2030 ICU values and LOS for the special events is shown in **Table 4.G-11**, *2030 With Special Event ICU Summary* (see Appendix B in the Traffic Study for actual ICU calculations). As shown in the table, all intersections are forecast to operate at level of service D or better. Thus, less than significant traffic impacts would occur during special events.

Table 4.G- 11

2030 With Special Event ICU Summary

	No-Project		With Project	
	Mid-day Peak Hour		Mid-day Peak Hour	
Intersection	ICU	LOS	ICU	LOS
15. Goldenwest St & McFadden Ave	.80	C	.81	D
16. Gothard St & McFadden Ave	.54	A	.54	A
26. Goldenwest St & Edinger Ave	.83	D	.83	D
27. Gothard St & Edinger Ave	.70	B	.70	B

Source: Center Avenue Skate Park Traffic Analysis, prepared by Austin-Foust Associates, Inc., dated December 2011.

In addition to the analysis above, the Traffic Study prepared for the Project conducted a qualitative analysis to identify the potential impact of the proposed shuttle route. The arrival and departures of shuttled passengers with their staggered arrival pattern would result in the shuttle buses serving up to 620 passengers per hour during the peak period. As discussed previously, 95 percent of the passengers would need to be shuttled to/from the project site and five percent were assumed to be drop-off and pick-ups at the project site. The travel time between the project site and remote parking lot is estimated at five minutes. Allowing an additional five minutes to move through the staging areas, the total travel time is estimated at 10 to 12 minutes. This is the maximum recommended travel time needed to ensure optimal use of the shuttle.

It is estimated that up to 10 shuttle buses with 40-seat capacity (allowing for 20 standing passengers) would be needed during the special event. Each shuttle would complete 2.5 circuits during the mid-day peak hour. This results in a total of 100 trips per day (50 northbound and 50 southbound), which would have a less than significant impact on the ICU values for intersections located along the shuttle route. A less than significant traffic impact would occur from the shuttle buses.

(vii) Freeway Ramp Volumes

A summary of the 2016 and 2030 peak hour volumes and V/C ratios for freeway ramps that would be affected by the proposed project can be found in **Table 4.G-12**, *Future Freeway Ramp V/C Summary*.

Table 4.G-12

Future Freeway Ramp V/C Summary

Location	Capacity	AM Peak Hour				PM Peak Hour			
		Total Volume	Total V/C	Project Volume	Project V/C *	Total Volume	Total V/C	Project Volume	Project V/C *
YEAR 2016									
I-405/Beach Blvd NB loop on-ramp (from NB Beach Blvd)	900	1,450	1.61	0	0.00	1,510	1.68	1	0.00
I-405/Beach Blvd NB loop off-ramp (to SB Beach Blvd)	1,500	770	0.51	0	0.00	960	0.64	1	0.00
I-405/Beach Blvd SB on-ramp at Center Ave	1,800	520	0.29	0	0.00	1,100	0.61	1	0.00
I-405/Beach Blvd SB off-ramp at Center Ave	1,500	960	0.64	0	0.00	1,180	0.79	1	0.00
I-405/Edinger Ave SB direct on-ramp	1,080	660	0.61	0	0.00	640	0.59	0	0.00
YEAR 2030									
I-405/Beach Blvd NB loop on-ramp (from NB Beach Blvd)	900	1,470	1.63	0	0.00	1,520	1.69	1	0.00
I-405/Beach Blvd NB loop off-ramp (to SB Beach Blvd)	1,500	820	0.55	0	0.00	1,010	0.67	1	0.00
I-405/Beach Blvd SB on-ramp at Center Ave	1,800	610	0.34	0	0.00	1,120	0.62	1	0.00
I-405/Beach Blvd SB off-ramp at Center Ave	1,500	970	0.65	0	0.00	1,270	0.85	1	0.00
I-405/Edinger Ave SB direct on-ramp	1,080	700	0.65	0	0.00	680	0.63	0	0.00

** Project contribution to the total V/C ratio.*

Source: Center Avenue Skate Park Traffic Analysis, prepared by Austin-Foust Associates, Inc., dated December 2011.

Included in the table are the project contributions to the ramp V/C ratios. As can be seen, the proposed project does not have a significant impact to the freeway ramps under either scenario (2016 or long-range). Thus, the proposed project would result in less than significant traffic impacts to freeway ramps under the short-range (2016) and long-range (2030) scenarios.

(2) Hazards-Access

Threshold	Would the project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses?

4.G-2 The project has the potential to increase hazards associated with access on Center Avenue. However, compliance with standard City sight distance design requirements would ensure that impacts are less than significant.

For purposes of this analysis, hazards are defined as changes to circulation patterns that could result in unsafe driving or pedestrian conditions. Examples include inadequate vision or stopping distance, sharp roadway curves where there is an inability to see oncoming traffic, or vehicular/pedestrian traffic conflicts. The project would not substantially increase hazards due to design features or incompatible uses. The project would result in a skate park on the northeast corner of Center Avenue and Gothard Street on a parcel that is currently undeveloped. The project would not introduce design features incompatible with current circulation patterns.

The Union Pacific Railroad right-of-way is located directly adjacent to the project site towards the east. Although the project would introduce a skate park on the project site, the site design would not allow access to the adjacent railroad right-of-way from the site. Therefore, project impacts are less-than-significant with regards to hazards resulting from design features or incompatible uses.

However, the potential for roadway hazards can also occur as an inherent result of the placement of additional access points along public roadways. New intersections require adequate sight distance and intersection traffic control in order to minimize potential hazards. In order to ensure safe construction of project intersections, the following code requirements would be required:

CR4.13-1 On-site and off-site traffic signing and striping shall be implemented in conjunction with detailed construction plans for the project site. Restriping and signage on Center Avenue would be required to control movements and provide safe access from the proposed driveways.

CR4.13-2 Sight distance at each project access shall be reviewed to ensure compliance with appropriate sight distance standards at the time of preparation of final grading, landscape and street improvement plans.

The proposed project would include two access points. The access fronting Center Avenue would serve as the main entrance into the skate park, with parking lots and drop-off. The access from McFadden Avenue would serve as temporary access for vendor parking during special events (about 15 events per year). As part of the Traffic Study, the levels of service were calculated using the HCM methodology for the

Table 4.G-13

Project Driveway Levels of Service

Unsignalized Driveways

	Year 2016				Year 2030			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
Location	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
Center Ave	9.2	A	9.7	A	9.3	A	9.8	A

Source: Center Avenue Skate Park Traffic Analysis, prepared by Austin-Foust Associates, Inc., dated December 2011.

unsignalized intersection at the Center Avenue Access point. The results are summarized in **Table 4.G-13**, *Project Driveway Levels of Service*, and actual ICU calculations can be found in the last section of Appendix B of the Traffic Study. As shown in the table, the project access intersection is shown to operate at an acceptable level of service. Access points to the project site would not be considered a design hazard in regards to daily traffic operation of the intersection. Implementation of city requirements would ensure impacts would be less than significant.

(3) Parking

Threshold	Would the project result in inadequate parking capacity?

4.G-3 The project would provide on-site parking to accommodate the day-to-day needs of guests and employees to the site. Special events could result in off-site parking impacts to neighboring uses. However, implementation of mitigation measure 4.G-1 would ensure that potentially significant parking impacts to neighboring uses during special events are reduced to a less than significant level.

The proposed project would include both a paved main parking lot with a minimum of 24 regular stalls and two handicapped accessible stalls, as well as a temporary gravel parking lot that can accommodate approximately 40 normal passenger vehicles. Based on the nature of the skate park/retail store and associated users/patrons, it is expected that the majority of park visitors would be youth utilizing non-vehicular transportation or dropped off by others. As such, the parking supply provided in the main parking lot is anticipated to adequately meet normal day-to-day demands.

However, the facility would host several special events per year, comprising up to approximately 15 event days, which would substantially increase park visitation and associated traffic and parking. A significant number of guests for these events are expected to be local youth arriving at the park by foot or other non-vehicular forms of transportation. Guests arriving by vehicle would be directed to the surface parking lots at the Huntington Beach Sports Complex, located approximately 2.8 miles south of the project site, which has a total of 850 parking stalls. Guests would access this parking area via the Sports Complex's eastern entrance off Gothard Street at Talbert Avenue, and then would be transported to and from the skate park via shuttle buses. Signage and/or parking attendants would be present to direct visitor vehicular traffic to the off-site parking area and direct pedestrians to the skate park area during such major events. Park visitors would

enter the park via the Center Avenue entrance and vendors would enter the site through the McFadden Avenue entrance and park their vehicles in the north temporary gravel parking lot.

Prior to scheduling events, the project operator/owner would coordinate with the City of Huntington Beach Community Services Department to allocate appropriate parking stall reserves at the Huntington Beach Sports Complex. To ensure adequacy of parking, the project operator/owner would schedule major events on days where no events are planned at the Sports Complex. Guests parking at the Sports Complex would be shuttled to the skate park via shuttle buses, with up to six shuttle buses utilized to accommodate guest demand. Shuttle drivers would follow a specified shuttle route (i.e., Gothard Street between Center Avenue and Talbert Avenue).

While adequate parking for special events is anticipated to be provided at off-site locations, special events nonetheless have the potential to create parking impacts for adjacent neighbors. Therefore, Mitigation Measure 4.G-1 has been prescribed to address the potential for overflow parking for special events.

MM 4.G-1 Prior to special events, the skate park operator, in consultation with the City of Huntington Beach, shall implement measures to the extent feasible to minimize the potential for off-site parking impacts to neighboring uses. These measures can include, but are not limited to, the following:

- Provide access management for the staging area, including personnel to guide/direct visitors to appropriate parking areas;
- Provide management techniques for use of the overflow parking, including the use of valet parking in a portion of the remote lot (Huntington Beach Sports Complex);
- Provide permit parking for residential neighborhoods adjacent to the project site; and
- Provide signage to direct visitors to the remote lot and discourage visitors from parking in adjacent residential neighborhoods and the Bella Terra commercial area.

Implementation of mitigation measure 4.G-1 would ensure that potentially significant parking impacts to neighboring uses during special events are reduced to a less than significant level.

(4) Alternative Transportation

Threshold	Would the project conflict with adopted policies, plans, or programs regarding alternative transportation?

4.G-4 The surrounding locale of the project area includes various alternative transportation facilities, none of which would be adversely impacted by the project. Many patrons to the project site would access the project site via alternative transportation facilities, which is supportive of the City's goals to increase use of alternative transportation facilities. As such, the project would not conflict with adopted policies, plans, or programs regarding alternative transportation and a less than significant impact would occur.

The proposed project would be located on the northeast corner of Center Avenue and Gothard Street. Alternative modes of transportation would be accessible for both patrons and employees of the skate park. These alternative modes of travel are provided to the project site via public sidewalks and existing roadways. Due to the unique nature of the proposed skate park, a percentage of the patrons are anticipated

to travel to/from the site using alternative modes of travel (i.e., biking, walking and skateboarding). The patrons would primarily be local youth from the nearby residential areas and the adjacent Golden West College. Class II bike lanes exist on most streets immediately surrounding the proposed project. Access to and from the actual site would occur via Center Avenue, where designated bike lanes are not provided. Public sidewalks also provide a safe means of alternative access to the site for pedestrians and skateboard riders. The sidewalks immediately surrounding the project site all provide continuous access, with pedestrian friendly sidewalks located on the north side of Center Avenue. The intersection of Center Avenue and Gothard Street is signalized and provides marked crosswalks on all four legs, providing a safe route for patrons from the west and south. In addition, the dedication of the "Transit Reserve Area" on-site would facilitate a future pedestrian transit stop along the adjacent Union Pacific Railroad tracks. The proposed project would not disrupt the use of any alternative transportation facilities in the surrounding locale.

The OCTA transit center is also located immediately west of the project site and provides a convenient location for trips to be made by transit. The Center is the City's largest transit hub and serves six bus lines and provides transit access throughout northern Orange County. The location of the proposed project in such close proximity to the transportation center hub would provide patrons and employees with a convenient means of alternative transportation. The Bella Terra Regional Shopping Center is also within walking distance of the project site. The walkability of the surrounding area, as well as the easy access to transit facilities would promote the City's goal of reducing vehicle miles traveled by employees and visitors of the proposed project.

Based on the above, the surrounding locale of the project area includes various alternative transportation facilities, none of which would be adversely impacted by the proposed project. Many patrons to the project site would access the project site via alternative transportation facilities, which is supportive of the City's goals to increase use of alternative transportation facilities (as discussed under Impact Statement 4.G-5). As such, the proposed project would not conflict with adopted policies, plans, or programs regarding alternative transportation and a less than significant impact would occur.

(5) Consistency with Applicable Plans

4.G-5 Project implementation would be consistent with the applicable transportation-related goals and policies in the City's General Plan Circulation Element. Thus, no conflicts would occur in this regard.

The proposed project would be located on the northeast corner of Center Avenue and Gothard Street. Alternative modes of transportation would be accessible for both patrons and employees of the skate park. The OCTA transit center is located immediately west of the project site and provides a convenient location for trips to be made by transit. As Golden West College is situated directly west of Gothard Street, it is anticipated that students would walk or use other non-private vehicle modes (i.e., bicycle and transit) to access the skate park. Additionally, the Bella Terra Regional Shopping Center is just south of the project site, within walking distance of the project site (0.2 mile). The walkability of the surrounding area, as well as the easy access to transit facilities would promote objectives relating to traffic reduction and increase reliance on alternative methods of transportation included in the Circulation Element. The availability of alternative transportation facilities that would support the proposed project would be consistent with Goal CE6 and its associated objectives and policies in the City's Circulation Element.

As discussed above in Impact Statement 4.G-1, no traffic impacts would occur as a result of project implementation. Therefore, the proposed project would meet acceptable minimum standards as stated in Goal CE2 and its associated objectives and policies in the City's Circulation Element. Access to the project site would be provided via two access points, the main access point from Center Avenue and the other from McFadden Avenue. Peak hour delays for existing and entering vehicles would operate at acceptable levels and would therefore not conflict with Policy CE 2.3.2.

In addition, as discussed under Impact Statement 4.G-3, parking would be available to meet day-to-day and special event parking needs for the project. As such, parking impacts would be less than significant. This is consistent with Goal CE5 and its associated objectives and policies in the City's Circulation Element.

Based on the above, the proposed project would be consistent with the applicable transportation-related polices in the City's Circulation Element.

3. CUMULATIVE IMPACTS

4.G-6 The project combined with cumulative projects would not result in cumulative considerable traffic impacts to the surrounding roadway network.

The traffic analysis under Impact Statement 4.G-1 considers city-wide cumulative growth anticipated to occur under both the long and short-range scenarios, as discussed in section 3.0, Basis for Cumulative Analysis. The project-specific traffic analysis considers trips generated by cumulative projects in its development of future baseline conditions. Therefore, the cumulative impact analysis is incorporated into the analysis presented under Impact Statement 4.G-1. As identified above, impacts would not be cumulatively considerable at the study area intersections.