2015 Update to:

Irvine Business Complex Vision Plan Traffic Fee Nexus Study

June 07, 2017

Prepared for:

J17-0530 | **Prepared by** HDR **Inc.** in association with iteris **Inc.**

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Executive Summary

This five-year update (2015 IBC Traffic Fee Nexus Update) is consistent with the principles of the Irvine Business Complex (IBC) Vision Plan and maintains a consistent nexus between future development in the IBC and the transportation system improvements necessary to support that development. The objective of this study is to update development fees to financially support the implementation of identified improvements to the transportation system within and adjacent to the IBC in order to accommodate full buildout of the Vision Plan.

Pursuant to the requirements of AB 1600, this update ensures that it complies with the nexus determination requirement to:

- Identify the purpose of the fee;
- Identify the use to be funded by the fee;
- Determine the reasonable relationship between:
  - The use of the fee and the type of development paying the fee;
  - The need for the traffic improvements and the types of development on which the fee is imposed; and
  - The amount of the fee and the cost of the public facilities or portion of the public facilities (in this case, traffic improvements) attributable to the development.

The 2015 IBC Traffic Fee Nexus Study complies will all State legislative nexus requirements.

Table ES.1 summarizes the costs included in the 2015 IBC Traffic Fee Nexus Update. These costs are based on a combination of detailed cost estimates for specific fair-share improvements identified in the accompanying 2015 traffic study[1] (2015 IBC Traffic Study Update), obligations to fund specific improvements within adjacent jurisdictions as necessary to mitigate the impacts of the buildout of the IBC Vision Plan, and a continuing obligation to fund certain improvements identified in a prior fee program for the IBC adopted in 1992. Additionally, the costs include specific tasks required to implement and maintain the fee program consistent with the requirements of the IBC Vision Plan General Plan Amendment/Zoning Ordinance.

The proposed fee program assumes that development fees will fund up to 90% of identified improvement costs. It is assumed that the remaining 10% of the project costs will be covered by outside funding sources including federal, state, and county programs.

Table ES.2 summarizes a fee comparison between 1992 (at the onset of the IBC Fee Program), 2009 fees (developed through annual adjustments of the 1992 fee), 2010 fees (developed as part of the Vision Plan), 2016 fees (currently what the City charges developers – this is developed by applying annual adjustments to the 2010 fee) and proposed fees, effective beginning in the next FY 2017-18. Although the fees are significantly higher than the current 2016 fees, they still remain 31%-35% lower than 2009 fees.

[1] *Irvine Business Complex Vision Plan, 2015 Five Year Traffic Study Update, Iteris with HDR, 2016*

Table ES.1: 2015Updated IBC Vision Plan Traffic Fee Program Breakdown

Needs for IBC Vision Plan Traffic Improvements		
Improvement Costs		
Based on 2015 IBC Traffic Study Update		
Irvine (90% of estimate assumed)	*$18,006,327*	
Caltrans District 12	*$6,585,299*	
2015 IBC Traffic Study Update Improvements	$24,591,626	$24,591,626
Remaining Existing General Plan Improvements		
Irvine (90% of estimate assumed)	*$16,577,451*	
Improvements in Santa Ana	*$52,670,912*	
Improvements in Costa Mesa	*$28,970*	
2015 Update - Remaining Existing General Plan Improvements	$69,227,334	$69,227,334
Subtotal: 2015 Update IBC Vision Plan Improvement Cost		$93,868,960
Existing IBC Traffic Funds Available		
*Current IBC Traffic Fund Balance***	*$46,838,863*	
*Capital Improvement Program funds that are currently appropriated for IBC Improvements ****	*($27,354,385)*	
Subtotal: Existing IBC Funds to be applied to the 2015 Fee Program	($19,484,478)	($19,484,478)
Subtotal: (Effective) 2015 Updated IBC Vision Plan Improvement Cost		$74,384,482
Other IBC Vision Plan Traffic Fee Program Costs		
Transportation Management Systems (10% of total fee)	*$7,438,448*	
IBC Program Administration (5% of total fee)	*$3,719,224*	
Contingency (15% of total fee)	*$11,157,672*	
Subtotal: Additional Costs to the IBC Fee Program	$22,315,345	$22,315,345
Development Agreements (subject to fees identified in their agreements)		
Park Place DA	*($2,769,591)*	
Central Park West DA	*($1,233,998)*	
Subtotal: Existing Development Agreements	($4,003,589)	($4,003,589)
Subtotal: Total IBC Fees Required		$92,696,238

Source: HDR 2015 for Development of Improvement Costs; City of Irvine for Fund Balances
* Caltrans D12 agreement with City of Irvine ($7,025,962 minus $440,663 set aside as Caltrans Subfund)
** Includes remaining balance from 1992 IBC Traffic Fee Program Fund Balance, current IBC Vision Plan Traffic Fee Program Fund Balance, and Caltrans subfund
*** CIP allocation for funding of Jamboree Road/Barranca Parkway and Jamboree Road/Main Street improvements, and partial funding for the pedestrian bridge at Jamboree Road and Michelson Drive

Table ES.2: IBC Fee Comparison

Land Use	Unit	IBC Traffic Fee					Increase from 2016 (factor)
		1992	2009	2010	2016	Proposed***	
Total Residential	DU	$3,734	$7,175	$1,862	$2,254	$4,697	2.08
Extended Stay	Rooms	$3,016	$5,795	$1,503	$1,820	$3,796	2.09
Hotel	Rooms	$4,883	$9,383	$2,435	$2,947	$6,140	2.08
Retail Mix	Sq. Ft.	$10.70	$20.28	$5.45	$6.60	$13.97	2.12
Office	Sq. Ft.	$10.70	$20.28	$5.45	$6.60	$13.97	2.12
Industrial Mix **	Sq. Ft.	$3.30	$5.85	$1.50	$1.82	$3.79	2.08
Mini Warehouse	Sq. Ft.	$1.85	$3.55	$0.97	$1.17	$2.44	2.09

Source: HDR 2015, City of Irvine
* Includes Density Bonus Units charged fees consistent with Base Units
** Includes manufacturing and warehouse SF
*** Effective FY 2017-2018

The proposed fee is significantly higher than the 2010 fees and is attributable to the following factors:

- New improvement locations
- Significant increase in improvement costs between 2010 and 2015
- Fewer number of remaining development units (residential and non-residential) subject to fee
- Lesser remaining funds available from the IBC Traffic Fee Fund Balance, due to large payout to Cities of Newport Beach and Tustin (per 2009 and 2010 agreements respectively) and earmarked funds for improvements and payment to Caltrans (per 2011 agreement)

1 Introduction

1.1 Background

The City of Irvine established an Irvine Business Complex (IBC) Nexus Fee Program in 1992 (henceforth to be referred to as the 1992 Fee Program) to support the City's adoption of the more traffic intensive 1990 IBC Rezone General Plan Amendment (GPA) and Zone Code. The intent of the 1992 Fee Program was to support the implementation of specific improvements identified in a subsequent Environmental Impact Report (henceforth to be referred to as the 1992 EIR) prepared in conjunction with the 1992 rezoning actions. This approach is consistent with the City's General Plan Roadway Development Objective B-1 to "Plan, provide and maintain an integrated vehicular circulation system to accommodate projected local and regional needs."

In 2010, the City prepared the IBC Vision Plan (henceforth to be referred to as the Vision Plan), a GPA and Zone Change project to accommodate the ongoing shift in development patterns to improve the jobs-housing balance, and reduce vehicle miles travelled. In recent years, as development patterns within the IBC showed an increased demand for residential uses and a decreased demand for manufacturing and warehouse uses, The Vision Plan project, together with its accompanying EIR (Vision Plan EIR) were approved/certified by the Irvine City Council on July 13, 2010.

As part of the Vision Plan approval, the Zoning Ordinance was updated to require the City to re-evaluate traffic conditions (and traffic impact locations) and its impact on improvement needs, by way of a five-year traffic study update (amended to every two years in October 2015). In 2015, a five-year traffic study[2] (henceforth to be referred to as 2015 IBC Traffic Study Update) was completed to fulfil the requirements of the Zoning Ordinance. Based on the findings of the 2015 IBC Traffic Study Update, a new set of transportation improvements were identified. In this 2015 five-year fee/nexus update (henceforth to be referred to as 2015 IBC Traffic Fee Nexus Update), the fee structure and the nexus associated with the findings of the 2015 IBC Traffic Study Update, is being revised to accommodate the identified set of transportation improvements.

Subsequent to the completion of the Vision Plan, the City of Irvine entered into contractual agreements with the potentially affected jurisdictions/agencies (Caltrans District 12 and cities of Newport Beach, Santa Ana, Costa Mesa, and Tustin). Thus for this 2015 IBC Traffic Fee Nexus Update, only the fee associated with the findings of the 2015 IBC Traffic Study Update, were updated. The associated fair-shares and the nexus remained consistent with the 2010 Vision Plan Traffic Fee Nexus Study[3] (henceforth to be referred as Vision Plan Traffic Fee Nexus Study). This 2015 five-year update takes a "snapshot" of the development activity from the inception of the Vision Plan in 2010 to July 31, 2015, to evaluate the changes in land uses and traffic patterns, and subsequent improvement needs, resulting in the development of a proposed fee to be imposed effective fiscal year (FY) 2017-2018.

In 2010, the Vision Plan established two overlay zoning districts:

- Urban Neighborhood, in which residential mixed use was encouraged; and
- Business Complex, in which the existing allowable mix of non-residential uses was maintained.

The Vision Plan allowed for the buildout of 15,000 residential base dwelling units (DU) within the Urban Neighborhood Overlay Zone District, with a potential maximum of 2,038 additional density bonus units, pursuant to state law. In order to achieve the maximum residential development intensity contemplated under the Vision Plan, the Plan adopted a "flexible zoning" mechanism under which non-residential development intensity could be exchanged for residential development

[2] *Irvine Business Complex Vision Plan, 2015 Five Year Traffic Study Update, Iteris with HDR, 2016*

[3] *Irvine Business Complex Vision Plan Traffic Fee Nexus Study, Parsons Brinckerhoff, 2011*

intensity, thus achieving the maximum 15,000 DU (plus 2,038 DU pursuant to state law), by "offsetting" reduction of non-residential development intensity.

Based on approvals since 2010, the total number of density bonus units pursuant to state law assumed for this five-year update is reduced to 1,794 DU, down from the theoretical assumption of 2,038 DU in 2010. The accompanying 2015 IBC Traffic Study Update provided an assessment of existing, interim-year 2020 and buildout year Post-2035 with and without the updated land use conditions.

1.2 Purpose of the 2015 Update to the Vision Plan Nexus Study

Pursuant to requirements of the California Environmental Quality Act (CEQA), the City Council, as part of their approval of the Vision Plan in 2010, determined to make the City responsible to mitigate, where feasible, the impacts to the transportation system attributable to buildout of the Vision Plan. This 2015 IBC Traffic Fee Nexus Update is consistent with the principles of the Vision Plan Traffic Fee Nexus Study and maintains a consistent nexus between future development in the IBC and the transportation system improvements necessary to support that development. Through equitable developer fees, the objective of this update is to financially support the implementation of identified improvements to the transportation system within and adjacent to the IBC in order to accommodate full buildout of the Vision Plan.

California's Mitigation Fee Act (AB 1600, Cal. Gov. Code §§ 66000-66009) creates the legal framework for local governments to assess new fees toward future development. Such fees require new development to pay its fair-share of the infrastructure cost necessary to serve new residents and businesses. AB 1600 stipulates that a local government must take the following steps to establish a nexus between a proposed fee and project impacts:

- Identify the purpose of the fee;
- Identify the use to be funded by the fee;
- Determine the reasonable relationship between:
  - The use of the fee and the type of development paying the fee;
  - The need for the traffic improvements and the types of development on which the fee is imposed; and
  - The amount of the fee and the cost of the public facilities or portion of the public facilities (in this case, traffic improvements) attributable to the development.

These principles closely emulate two landmark US Supreme Court rulings that provide guidance on the application of impact fees. The first case, Nollan v. California Coastal Commission (1987) 107 S.Ct. 3141, established that local governments are not prohibited from imposing impact fees or dedications as conditions of project approval provided the local government establishes the existence of a "nexus" or link between the exaction and the interest being advanced by that exaction. The Nollan ruling clarifies that once the adverse impacts of development have been quantified, the local government must then document the relationship between the project and the need for the conditions that mitigate those impacts. The ruling further clarifies that an exaction may be imposed on a development even if the development project itself will not benefit provided the exaction is necessitated by the project's impacts on identifiable public resources.

The second case, Dolan v. City of Tigard (1994) 114 S.Ct. 2309, held that in addition to the Nollan standard of an essential nexus, there must be a "rough proportionality" between proposed exactions and the project impacts that the exactions are intended to provide benefit. As part of the Dolan ruling, the US Supreme Court advised that "a term such as "rough proportionality" best encapsulates what we hold to be the requirements of the Fifth Amendment. No precise mathematical calculation is required, but the city (or other local government) must make some sort of individualized determination that the required dedication is related both in nature and extent to the impact of the proposed development."

The combined effect of both rulings resulted in the requirement that public exactions must be carefully documented and supported. This requirement was reiterated by the provisions of the State of California Mitigation Fee Act and subsequent rulings in the California Supreme Court (Ehrlich v. City of Culver City (1996) 12 C4th 854) and the California Court of Appeal (Loyola Marymount University v. Los Angeles Unified School District (1996) 45 Cal.App.4th 1256).

The Vision Plan Traffic Fee Nexus Study satisfied the requirements of the State of California Mitigation Fee Act. Thus this update is not intended to re-analyze the nexus or the purpose, but is to review and revise the fee program based on the needs determined by the 2015 IBC Traffic Study Update.

The 2015 IBC Traffic Study Update analyzed the project study area presented in Figure 1.1. All improvements identified under the interim year 2020 and buildout Post-2035 conditions are located within this defined project study area. Consistent with the methodology used in the 2010 IBC Vision Plan Traffic Study (henceforth referred to as Vision Plan Traffic Study), the 2015 IBC Traffic Study Update identified specific mitigation measure improvements that mitigate unacceptable level of service (LOS) E and F to acceptable LOS of A-D, per the City's Traffic Impact Analysis (TIA) Guidelines (adopted August 2004) and per the performance criteria for each affected agency (Caltrans District 12 and cities of Newport Beach, Costa Mesa, Santa Ana, and Tustin).

For locations within the City of Irvine, 90% of the improvement costs are included in the fee program. For locations not under the City of Irvine's jurisdiction, a fair-share methodology is applied that considers fair-shares of improvement costs. The proportionate fair-shares of improvement costs in the City of Costa Mesa and Santa Ana, associated with remaining improvements from the City of Irvine's Genera Plan, are included in the Fee Program. A 2011 amended agreement with the City of Santa Ana, replacing the 1992 agreement between the two cities, identified specific improvements for which the City of Irvine is either partially or fully responsible for certain improvement and those associated improvement costs were included in this update. In 2009 and 2010, respectively, the City of Newport Beach and the City of Tustin entered into settlement agreements with the City of Irvine, where City of Irvine made a one-time lump-sum payment to each of the cities, as its fair-share contribution towards transportation improvements and absolved itself from any future financial or implementation obligation related to the Vision Plan buildout.

Based on the findings from the 2015 IBC Traffic Study Update and existing agreements between the City of Irvine and the affected jurisdictions and agencies, Figure 1.1 identifies the improvement locations and provides a brief description of each improvement.

Costs of improvements included in the fee program are based on 2016 dollars developed from Construction Cost Index (CCI), and recent relevant projects unit cost estimates for construction materials and labor, and right-of-way cost estimates. This is further discussed in Section 2, IBC Vision Plan – 2015 Update Traffic Fee Program Cost. Section 3, Fee Methodology, walks the reader through a step by step process of developing the proposed fee effective FY 2017-2018. Section 4, Establishing Nexus discusses in details of the nexus between a proposed fee and project impacts, and Section 5, Conclusion summarizes the findings of this update and provides recommendations.

Figure 1.1: IBC Vision Plan – 2015 Update – Location of Improvements

Source: HDR 2015

2 IBC Vision Plan – 2015 Update to Traffic Fee Program Cost

The 2015 IBC Traffic Fee Nexus Update includes costs required to implement physical improvements that achieve the following:

- Mitigate impacts identified through the 2015 IBC Traffic Study Update;
- Satisfy agreements with adjacent jurisdictions that require the construction of specific roadway improvements to diminish the impacts of the Vision Plan development on the roadway system; and
- Upgrade the roadway network to be consistent with the buildout of the City's General Plan Circulation Element.

All costs included as part of the 2015 IBC Traffic Fee Nexus Update comply with the City's policies and estimates based on the most recent aerial photography available, field reviews for determination of feasibility, recent unit costs from local projects, and CCI updates. For all improvements located within the City of Irvine, 90% of total costs are included in this update. It is assumed that the remaining 10% will come from outside funding sources, such as federal, state and county grants.

Consistent with the Vision Plan Traffic Fee Nexus Study, this update includes costs related to the management and implementation of the IBC Vision Plan Traffic Fee Program. These costs include implementing Transportation Management Strategies (TMS) to reduce vehicle volumes and associated impacts, IBC Vision Plan Traffic Fee Program administration and construction contingency costs. Incorporated into the mix are the fund amounts that are currently available in the fee program, which includes specific amounts that are earmarked for projects identified in the City's Capital Improvement Program (CIP) and Development Agreements (DAs) that are not subject to any fee update.

Table 2.1 presents the fees required by the traffic fee program to implement the IBC Vision Plan.

2.1 Agreement with the City of Newport Beach

Following the development of the Vision Plan, the City of Irvine entered a settlement agreement with the City of Newport Beach. Based on this agreement, executed on November 24, 2009, the City of Irvine paid a one-time sum of $3,650,000 to the City of Newport Beach to be used exclusively for the engineering, design, and construction of Jamboree Corridor improvements and other traffic improvements located within the Vision Plan study area. Details of this agreement are presented in Appendix A. At the time of the agreement, the Cities of Irvine and Newport Beach agreed that the amount of $3,650,000 constituted a fair-share obligation for the City of Irvine toward improvements in Newport Beach necessitated by the development of the Vision Plan. The agreement was drawn up on the premise that the City of Irvine will not be financially responsible for any mitigation caused by the buildout of the Vision Plan, provided the residential unit cap of 15,000 DUs (plus 2,038 DUs pursuant to state law) is not exceeded. Therefore no mitigation improvement costs were identified within the City of Newport Beach for inclusion in this fee update.

Table 2.1: 2015Updated IBC Vision Plan Traffic Fee Program Breakdown

Needs for IBC Vision Plan Traffic Improvements		
Improvement Costs		
Based on 2015 IBC Traffic Study Update		
Irvine (90% of estimate assumed)	*$18,006,327*	
Caltrans District 12	*$6,585,299*	
2015 IBC Traffic Study Update Improvements	$24,591,626	$24,591,626
Remaining Existing General Plan Improvements		
Irvine (90% of estimate assumed)	*$16,577,451*	
Improvements in Santa Ana	*$52,670,912*	
Improvements in Costa Mesa	*$28,970*	
2015 Update - Remaining Existing General Plan Improvements	$69,227,334	$69,227,334
Subtotal: 2015 Update IBC Vision Plan Improvement Cost		$93,868,960
Existing IBC Traffic Funds Available		
*Current IBC Traffic Fund Balance***	*$46,838,863*	
*Capital Improvement Program funds that are currently appropriated for IBC Improvements ****	*($27,354,385)*	
Subtotal: Existing IBC Funds to be applied to the 2015 Fee Program	($19,484,478)	($19,484,478)
Subtotal: (Effective) 2015 Updated IBC Vision Plan Improvement Cost		$74,384,482
Other IBC Vision Plan Traffic Fee Program Costs		
Transportation Management Systems (10% of total fee)	*$7,438,448*	
IBC Program Administration (5% of total fee)	*$3,719,224*	
Contingency (15% of total fee)	*$11,157,672*	
Subtotal: Additional Costs to the IBC Fee Program	$22,315,345	$22,315,345
Development Agreements (subject to fees identified in their agreements)		
Park Place DA	*($2,769,591)*	
Central Park West DA	*($1,233,998)*	
Subtotal: Existing Development Agreements	($4,003,589)	($4,003,589)
Subtotal: Total IBC Fees Required		$92,696,238

Source: HDR 2015 for Development of Improvement Costs; City of Irvine for Fund Balances
* Caltrans D12 agreement with City of Irvine ($7,025,962 minus $440,663 set aside as Caltrans Subfund)
** Includes remaining balance from 1992 IBC Traffic Fee Program Fund Balance, current IBC Vision Plan Traffic Fee Program Fund Balance, and Caltrans subfund
*** CIP allocation for funding of Jamboree Road/Barranca Parkway and Jamboree Road/Main Street improvements, and partial funding for the pedestrian bridge at Jamboree Road and Michelson Drive

2.2 Agreement with the City of Tustin

On July 13, 2010, following the development of the Vision Plan and through consultation with the City of Tustin, an agreement was executed between the Cities of Tustin and Irvine. The agreement stipulated that in lieu of City of

Irvine's fair-share of the estimated costs of traffic improvements located within the City of Tustin and identified as mitigation measures required for buildout of the Vision Plan, the City of Irvine would contribute 12% of the construction contract award amount or $4,500,000, whichever was greater, and up to a maximum of $6,500,000, for the Tustin Ranch Road extension roadway improvement between Walnut Avenue and Warner Avenue, including the grade separation and loop at Edinger Avenue. The improvements at Tustin Ranch Road, including the grade separation, were completed at the time of this update, however, the loop at Edinger Avenue is pending completion. Irvine's final contribution towards improvements in Tustin was $4.5 million. Appendix B presents the 2010 Settlement Agreement between the City of Irvine and the City of Tustin. The agreement was drawn up on the premise that the City of Irvine will not be financially responsible for any mitigation caused by the buildout of the Vision Plan, provided the residential unit cap of 15,000 DUs (plus 2,038 DUs pursuant to state law) is not exceeded. Therefore no mitigation improvement costs other than costs for specific improvement locations shared with Irvine, were identified within the City of Tustin for inclusion in this fee update.

2.3 Agreement with City of Santa Ana

A 1992 agreement between the City of Irvine and the City of Santa Ana resulted from the 1992 EIR approval that identified Irvine as the responsible party for the following improvements:

- Full financial responsibility for the costs to widen Dyer Road from a six-lane divided arterial to an eight-lane divided arterial between Red Hill Avenue and the SR-55 northbound on-ramp, including the intersection of Red Hill Avenue at Dyer Road/Barranca Parkway. Consistent with all improvements for which the City of Irvine has sole financial responsibility, 90% of total costs for this improvement is included in the 2015 IBC Traffic Fee Nexus Update.
- 50% of the costs to build the Alton Parkway Overcrossing at SR-55 in the City of Santa Ana.

The need for these improvements, and the allocation of responsibility to fund the improvements, was created in part by the development contemplated in the 1992 IBC Zoning, and as such the improvements were included in the 1992 Fee Program. An amendment to the 1992 agreement was negotiated and signed between the cities on March 21, 2011Following the approval of the IBC Vision Plan. The agreement redefined the Alton Parkway Interchange at SR-55 as Alton Parkway Overcrossing at SR-55, and maintained the financial responsibility of the City of Irvine on the two above mentioned projects, consistent with the 1992 agreement. Appendix C presents detail of the 1992 Settlement Agreement and the subsequent amendment.

Preliminary engineering cost estimates indicate that the Dyer Road widening is expected to cost $25,011,301. This cost includes estimates for Class II bikes lanes through the length of the project extent, consistent with the findings from the Project Report[4]. The total cost of the redefined Alton Parkway Overcrossing at SR-55 is estimated at $60,184,755. This cost includes the following list of additional improvements identified as mitigation in an updated traffic study[5] completed in 2010:

- Intersection #44: Red Hill Avenue at Alton Parkway;
- Signalization of the intersection of Halladay Street at Alton Parkway; and
- Signalization of the intersection of Daimler Street at Alton Parkway

For this update 90% of the cost of Dyer Road widening ($22,510,171) is included in the fee update. Pursuant to the City of Irvine and City of Santa Ana agreement, 50% of the Alton Parkway Overcrossing at SR-55 project ($30,092,378) is included in this update. Other than these two improvements, the only remaining Existing General Plan improvement per the cities' agreement included in this update is Intersection #719: Flower Street at Segerstrom Avenue that identifies a fair-share contribution of 9.6%, consistent with the Vision Plan Traffic Fee Nexus Study. City

[4] *Project Report for the Dyer Road/Barranca Parkway Improvements (State Route-55 to Aston Street), RBF Consulting, 2004*

[5] *Updated Traffic Study for Alton Avenue Overcrossing at State Route 55 Freeway and Arterial Widening in the Cities of Santa Ana and Irvine, KOA, 2010*

of Irvine's fair-share for implementing improvements at the intersection of Flower Street at Segerstrom Avenue is $68,364 (9.6% of $712,124).

Hence, the 2015 IBC Traffic Fee Nexus Update includes a total of $52,670,912 as funds that would be required to implement improvements within the City of Santa Ana.

Appendix D presents detailed layout and cost estimate worksheets for each improvement.

2.4 Agreement with City of Costa Mesa

Based on the existing agreement between the Cities of Irvine and Costa Mesa, executed in 1993 and presented in Appendix E, the fair-share contribution towards one remaining Existing General Plan improvement included in this update is SR-55 Frontage Road SB Ramps at Paularino Avenue that identifies a fair-share contribution of 2.4%, consistent with the Vision Plan Traffic Fee Nexus Study. City of Irvine's fair-share for implementing improvements at this location is $28,970 (2.4% of $1.2 Million).

Appendix D presents a layout and cost estimate worksheet for this location.

2.5 Agreement with Caltrans District 12

Following the development of the Vision Plan and through consultation with Caltrans District 12 (Caltrans), on January 25, 2011, the City of Irvine and Caltrans entered into an agreement that identified feasible strategies that Caltrans would employ as mitigation for traffic impacts caused by the project on Caltrans facilities. Based on the findings from the Vision Plan Traffic Fee Nexus Study, it was determined that the fair-share cost of implementing these improvements would be $7,025,962 and it would constitute the City of Irvine's fair-share obligation as identified in the agreement. Appendix F presents the 2011 Traffic Mitigation Agreement between City of Irvine and Caltrans. Since the completion of the Vision Plan, the City of Irvine has collected and earmarked $440,663 as payment towards Caltrans agreement. Hence, this 2015 IBC Traffic Fee Nexus Update rolls over $6,585,299 ($7,025,962 less $440,663) from the Vision Plan Traffic Fee Nexus Study, as part of the funding need for implementing improvements associated with the buildout of the Vision Plan.

2.6 Transportation Improvements within the City of Irvine

2.6.1 Based on the 2015 IBC Traffic Study Update

The 2015 IBC Traffic Study Update identified the following eight deficient locations for which improvements were identified (refer to Table ES1.2 in the 2015 IBC Traffic Study Update).

- Intersection #97: Von Karman Avenue/Tustin Ranch Road at Barranca Parkway;
- Intersection #98: Von Karman Avenue at Alton Parkway;
- Intersection #134: Loop Road/Park Avenue at Warner Avenue;
- Intersection #135: Jamboree NB Ramps at Warner Avenue;
- Intersection #144: Jamboree Road at I-405 SB Ramps;
- Intersection #145: Jamboree Road at Michelson Drive;
- Intersection #188: Harvard Avenue at Michelson Drive;
- Intersection #229: Culver Drive at Alton Parkway;

For the purpose of the fee update, cost estimates were developed at six of these locations. Cost estimates were not necessary for intersections #144 (Jamboree Road at I-405 SB Ramps) and #145 (Jamboree Road at Michelson Drive).

- Intersection #144 (Jamboree Road at I-405 SB Ramps) improvement costs were not included in the updated fee because this location is a Caltrans facility and is part of the $7 million agreement with Caltrans. The specific improvement identified for #144 in the Vision Plan Traffic Fee Nexus Study called for widening of this off-ramp to add an approach lane resulting in two-left turn lanes and three-right turn lanes for an approach length of 500 feet, with the City's responsibility identified as 21.6% of a $1.5 million project. The 2015 IBC Traffic Study Update recommended a slightly altered improvement that reassigns these approach lanes to provide two-left turn lanes, one-shared left/right turn lane, and two-right turn lanes, all within the previously determined ROW, hence minimally impacting project costs.
- Intersection #145 (Jamboree Road at Michelson Drive) improvement costs were not included in the updated fee as a specific line item cost because $8,237,407 in CIP funding has been allocated from the IBC Traffic Fee Program Fund Balance to cover a portion of the estimated $17.7 million total cost to implement the pedestrian bridge. The pedestrian bridge across the north leg of the southbound Jamboree approach was proposed as part of the Vision Plan EIR because lane addition improvements at the intersection were determined to be operationally infeasible.

In addition, the 2015 IBC Traffic Study Update identified the following three locations for signalization.

- Armstrong Avenue at McGaw Avenue;
- Gillette Avenue at Alton Parkway;
- Teller Avenue at Dupont Drive;

At the time this report was being prepared, signalization efforts at Armstrong Avenue at McGaw Avenue and at Teller Avenue at Dupont Drive were underway and therefore were not included in the updated fee calculations.

Consistent with the Vision Plan Traffic Fee Nexus Study, this update also assumes 90% of the total cost of improvements within the City of Irvine ($20,007,030) or $18,006,327. It is assumed that the remaining 10% may be funded with outside funding sources such as federal, state and/or county grants.

2.6.2 Existing General Plan Improvements

The remaining Existing General Plan improvement not yet built in the IBC is the widening of Red Hill Avenue between Main Street and MacArthur Boulevard from four lanes to six lanes.

Originally identified in the 1992 EIR and 1992 Fee Program as an improvement that widens the arterial from its existing four lanes to an eight-lane facility, the Vision Plan determined that widening of this segment of Red Hill Avenue from four lanes to six lanes provided adequate traffic circulation to accommodate project buildout. The 2015 IBC Traffic Study Update concurs with that finding and this widening improvement to six lanes is consistent with the City's General Plan Circulation Element updated as part of the Vision Plan effort. The 90% of the cost for this improvement is $16,577,451 (or 90% of the total cost of $18,419,390) is included in the fee program.

Appendix D presents detailed concept layouts and cost estimate worksheets for each improvement that is included in the fee update.

2.7 Existing IBC Fund Balance

The current IBC Traffic Fee Program fund balance is the combination of the remaining funds from the 1992 Traffic Fee Program, balance of funds collected through the Vision Plan implementation since 2010, and earmarked funds

($440,663 – refer Section 2.5) allocated for Caltrans improvements per the settlement agreement with Caltrans. At the time of this update (i.e., snapshot date of July 31, 2015), the overall combined IBC Vision Plan Traffic Fee Program funds were $46,838,863.

As discussed in Section 2.6.1, $8,237,407 from this fund is allocated towards the construction of the pedestrian bridge over Jamboree Road at Michelson Drive. In addition, the City's CIP had allocated $4,766,978 towards the implementation of improvements at intersection #136 (Jamboree Road at Barranca Parkway) and intersection #141 (Jamboree Road at Main Street) from the IBC Traffic Fee Program fund. Subsequently, CIP funding for intersections #136 and #141 was augmented with an additional allocation of $14,350,000 ($5,030,000 for intersection #136 and $9,320,000 for intersection #141), bringing the total funding earmarked for these two intersections to $19,116,978. As these two intersection improvements were identified in the Vision Plan Traffic Study and 2010 Traffic Fee Nexus Study, and implementation was underway, these improvements were assumed to be constructed in terms of traffic analysis. Backing out the allocated funds for these committed improvements, the remaining IBC Traffic Fee Program funds available equaled $19,484,478 and this amount is applied towards this fee update. Table 2.2 summarizes the IBC fund balance applied towards this fee update.

Table 2.2: IBC Traffic Fee Funds applied towards 2015 Update*

Funds / Projects	Amount
IBC Vision Plan Traffic Fee Program funds	$46,838,863
Allocated funds for Jamboree/Michelson pedestrian bridge (included in CIP)	($8,237,407)
Allocated fund balance for Jamboree Road at Barranca Parkway, and Jamboree Road at Main Street improvements (included in CIP)	($19,116,978)
TOTAL	$19,484,478

*as of snapshot date of July 31, 2015
Source: City of Irvine

2.8 Other IBC Vision Plan Traffic Fee Program Costs

Consistent with the Vision Plan Traffic Fee Nexus Study, costs associated with Transportation Management Systems (TMS) are included in this update and will be reevaluated as part of the next two-year update. The TMS costs are estimated at 10% of the effective total costs of improvements ($74,384,482) after subtracting the remaining IBC Traffic Fee fund balance, or approximately $7.44 million. As documented in the Vision Plan EIR, Project Design Feature (PDF 13-1) addresses the goals and objectives of the TMS as follows:

- Monitor travel demand at employment sites and provide reports on trip generation to the City;
- Offer employers and property owners assistance with transportation services on a voluntary basis;
- Deliver transportation services to commuters including a) ride-matching, transit/Metrolink information, b) inform commuters of incentives that may be available from public agencies, c) formation of vanpools;
- Represent the IBC in local transportation matters; and
- Oversee and fund the implementation and expansion of the i-Shuttle.

Program Administration costs are assumed in the fees as 5% of the effective total costs of improvements ($74,384,482) after subtracting the remaining IBC Traffic Fee fund balance, for an amount of approximately $3.72 million to cover the next two years of staff and consultant time for administering annual fee updates, monitoring/updating the IBC database, inter-departmental and inter-agency coordination, reassessment of land use assumptions and reassessment of the Vision Plan and improvement list as required every two years, starting from this update cycle. Administration costs will also be reevaluated with the next two-year update.

Contingency costs (a standard practice in the industry to cover inflation rates and unforeseen costs) over the 20-year period are estimated at 15% of the effective total costs of improvements ($74,384,482) after subtracting the remaining IBC Traffic Fee fund balance, for an amount of approximately $11.16 million.

The summation of theseother IBC Vision Plan Traffic Fee Program costs for this update equals $22,315,345.

2.9 Development Agreement Cost Reduction

Development Agreements (DAs) currently exist between the City and the following five developments located in the IBC:

- Park Place;
- Central Park West;
- Hines;
- Avalon Apartments; and
- Alton Condominiums

The DAs specify the fees that were locked-in at the time of approval of each specific project. Consistent with the Vision Plan Traffic Fee Nexus Study, it is assumed for this update that two of the developers (Park Place and Central Park West) will continue to pay fees identified in their DAs. Therefore their related fees in the amount of approximately $4 million ($2,769,591 for Park Place and $1,233,998 for Central Park West) and the land use intensity associated with these fees were deducted from the calculation of the proposed updated fees. The intensity and related fees for the remaining three DAs (Hines, Avalon Apartments and Alton Condo) were included in the calculation of the updated fee.

3 Fee Methodology

The methodology used for this fee update is consistent with the Vision Plan Traffic Fee Nexus Study and each step for fee calculations is discussed in detail in the following sections.

3.1 Step 1: Identify Traffic Improvements and the IBC Fair-share

The mitigation measure improvements identified in the 2015 IBC Traffic Study Update to be included for the 2015 IBC Traffic Fee Nexus Update, are presented in Table 3.1. The improvements address project-related impacts based on thresholds of significance described in the traffic study. Improvements in Newport Beach and Tustin, with whom the City of Irvine has separate agreements are excluded from Table 3.1. As discussed previously in Section 2.3 and Section 2.4, select improvements in Santa Ana and Costa Mesa are included.

Table 3.1: Updated IBC Vision Plan Improvement List

Int ID	Intersection / Arterial Location	Jurisdiction	Improvement Strategy
97	Von Karman Avenue/Tustin Ranch Road at Barranca Parkway *	Irvine	Add 3rd NBT and convert de facto right-turn to standard NBR
98	Von Karman Avenue at Alton Parkway *	Irvine	Add 3rd NBT
134	Loop Road/Park Avenue at Warner Avenue	Irvine	Add 3rd EBT and NBR overlap
135	Jamboree NB Ramps/Warner Avenue	Irvine	Add 2nd EBL
188	Harvard Avenue at Michelson Drive	Irvine	Widen SB to 2,2,1
229	Culver Drive at Alton Parkway	Irvine	Improve EB to 2,3,0 (de facto right)
	Red Hill Avenue between Main Street and Mac Arthur Boulevard	Irvine	Widen from 4 lanes to 6 lanes.
	Gillette Avenue at Alton Parkway	Irvine	New traffic signal (T-intersection)
	Alton Overcrossing at SR-55	Santa Ana**	SR-55/Alton Parkway Overcrossing Project plus the following improvements: • Intersection #44: Red Hill / Alton (Add 1 NBR, convert de facto SBR to 1 SBR, add 2nd EBL, convert 1 WBR to free WBR) • Signalization and widening of Halladay Street / Alton Parkway • Signalization at Daimler Street / Alton Parkway
	Dyer Road widening between SR-55 NB on ramp and Red Hill Avenue (Phase 2)	Santa Ana**	Dyer Road widening from SR-55 to Red Hill Avenue (consistent with Barranca-Dyer Project Report)
719	Flower Street and Segerstrom Avenue	Santa Ana	Add eastbound de facto lane
10	SR-55 Frontage Road SB Ramps at Paularino	Costa Mesa	Improve Southbound to 1.5 Left, 1.5 Through, 1 Right.

Source: HDR 2015
* Due to close proximity of improvements, for cost development, these two locations were combined and treated as one contiguous corridor on Von Karman Avenue between Alton Parkway and Barranca Parkway/Tustin Ranch Road.
**Agreement with Santa Ana.

3.2 Step 2: Estimate Total Cost to Implement 2015 IBC Improvement List

In order to implement the improvements identified in the 2015 IBC Traffic Study Update, a total cost of $92,696,238 (see Table 2.1) must be programmed into this fee update effort. This cost includes the cost of the improvements, roll over from the Caltrans agreement (see Section 2.5), deduction of the available fund balance from the IBC Traffic Fee Program (see Table 2.2), project soft costs (see Section 2.8) and deduction of fees related to the two existing Development Agreements (see Section 2.9).

Based on the preliminary engineering and cost estimates, the cost of the needed improvements is $93,868,960 and includes the following:

- 90% of costs related to improvements within City of Irvine and Santa Ana (widening of Dyer Road per agreement between City of Santa Ana and Irvine);
- Fair-share obligation to improvements in Santa Ana and Costa Mesa (remaining GP improvements); and
- Roll over of fair-share obligations pursuant to the Caltrans agreement from 2010.

Table 3.2 presents the list of improvement locations, along with project cost for each, City of Irvine's share and cost of improvements included in the 2015 IBC Traffic Fee Nexus Update.

Preliminary engineering layouts and detailed cost estimates were developed for each improvement. All improvement strategies identified to mitigate traffic impacts caused by the buildout of the Vision Plan were vetted through a review process with City of Irvine planning and engineering staff and were determined to be feasible. The following section discusses in detail the methodology for developing cost estimates.

3.2.1 Development of Improvement Costs

For the purpose of developing planning level cost estimates for each of the improvements, unit costs and planning level concept plans were developed. The concept level plans were based off most recent aerial imagery and field reconnaissance.

<u>Unit Cost Development</u>

Unit costs including ROW costs were reviewed and updated based on Caltrans cost data for 2015 and bid data provided by the City between 2013 and 2015. The 2015 unit costs were compared to the 2010 unit costs for reasonability and the following changes were made to the soft cost:

- ROW support costs were increased from 5% to 10% of construction costs
- Minimum Project Development cost was increased from $200,000 to $300,000

Table 3.2: Updated IBC Vision Plan Improvement List and Associated Cost for Fee Calculation

Int ID	Intersection / Arterial Location	Jurisdiction	Cost	Fair Share	Cost included for Fee Calculation
97 *	Von Karman Avenue/Tustin Ranch Road at Barranca Parkway [1]	Irvine	$7,558,713	90%	$6,802,842
98 *	Von Karman Avenue at Alton Parkway [1]	Irvine		90%	
134	Loop Road/Park Avenue at Warner Avenue [1]	Irvine	$5,411,023	90%	$4,869,921
135	Jamboree NB Ramps/Warner Avenue [1]	Irvine	$2,592,998	90%	$2,333,698
188	Harvard Avenue at Michelson Drive [1]	Irvine	$2,752,766	90%	$2,477,489
229	Culver Drive at Alton Parkway [1]	Irvine	$1,204,030	90%	$1,083,627
	Red Hill Avenue between Main Street and Mac Arthur Boulevard [2]	Irvine	$18,419,390	90%	$16,577,451
	Gillette Avenue at Alton Parkway [1]	Irvine	$487,500	90%	$438,750
	Alton Overcrossing at SR-55 [3]	Santa Ana	$60,184,755	50%	$30,092,378
	Dyer Road widening between SR-55 NB on ramp and Red Hill Avenue (Phase 2) [3]	Santa Ana	$25,011,301	90%	$22,510,171
719	Flower Street and Segerstrom Avenue [4]	Santa Ana	$712,124	9.6%	$68,364
10	SR-55 Frontage Road SB Ramps at Paularino [5]	Costa Mesa	$1,207,101	2.4%	$28,970
				Cost of Improvements	$87,283,661
				Caltrans agreement roll over **	$6,585,299
				2015 Update IBC Vision Plan Improvement Cost	$93,868,960

Source: HDR 2015
* Due to close proximity of improvements, for cost development, these two locations were combined and treated as one contiguous corridor on Von Karman Avenue between Alton Parkway and Barranca/Tustin Ranch Road
** Caltrans D12 agreement with City of Irvine ($7,025,962 minus $440,663 set aside as Caltrans Subfund)
[1] Irvine improvements - full financial responsibility to be funded at 90% through IBC Traffic Fee Program funds
[2] Irvine improvements - remaining Irvine General Plan improvement to be funded at 90% through IBC Traffic Fee Program funds
[3] Santa Ana improvements – full or financial responsibility per agreement
[4] Santa Ana improvements - remaining Irvine General Plan improvement for which City of Irvine has a fair share
[5] Costa Mesa improvements - remaining Irvine General Plan improvement for which City of Irvine has a fair share financial responsibility

Concept Development and Cost Estimates

Planning level concepts were developed based on publicly available "off the shelf" current aerial imagery. Utility identification, including sewer and overhead electrical lines, were determined to the extent possible from publicly available aerial photography. Length of turn pockets where needed was determined based on traffic data where appropriate. Consistent with the Vision Plan Traffic Fee Nexus Study, cost estimates included provisions for the following:

- Preliminary Project Development
- ROW Management
- Design Engineering/Administration Cost
- Construction Engineering Costs/Administration

- Construction Contingency

3.3 Step 3: Identify Remaining IBC Traffic Fund Revenues and Soft Costs to Determine Total Fee for 2015 Update

Based on the discussion in Section 2.7 and data presented in Table 2.2, an amount of $19,484,478, (effective IBC Traffic funds available to be applied toward the 2015 Fee Program) was subtracted from the total needs cost of $93,868,960 shown in Table 3.2.

Other IBC Traffic Fee Program costs, estimated at $22,315,345 and discussed in detail in Section 2.8 were added to the difference between improvement cost needs and the existing available IBC Traffic Fee Program Fund balance ($74,348,482). Finally, fees paid and those that will be paid by developers pursuant to their Development Agreements (DAs) in the amount of $4,003,589, were subtracted from the total value. Table 3.3 summarizes the value for each of the items that determine the final amount of $92,696,238 that must be programmed into this fee update effort.

Table 3.3: Summary of IBC Traffic Fee Update Cost Elements

Items	Cost
2015 Update IBC Vision Plan Improvement Cost*	$93,868,960
Existing IBC Traffic Fee Program Funds (amount to be subtracted)	($19,484,478)
(Effective) 2015 Updated IBC Vision Plan Improvement Cost	$74,384,482
Other IBC Traffic Fee Program (Transportation Management Systems, IBC Program Administration, Contingency)	$22,315,345
Development Agreements (amount to be subtracted)	($4,003,589)
Total Amount to be programmed for the 2015 Fee Update	$92,696,238

* includes Caltrans roll over
Source: HDR 2015

3.4 Step 4: Estimate the Remaining Development subject to 2015 Traffic Fee Update

Based on a thorough review of the City of Irvine IBC database records and Development Agreements (DAs), the remaining developable land uses under the Vision Plan buildout condition were quantified to define appropriate land use fees to fund the transportation improvements identified for this update.

Existing land uses as of the July 31, 2015 snapshot and forecast Year 2035 Vision Plan buildout land uses were applied in the determination of the land use specific traffic impact fees. Consistent with the underlying approach behind the development of the Vision Plan, increases in residential density throughout the IBC result in an overall reduction of non-residential uses (i.e., manufacturing, warehouse and mini-warehouse uses). The Vision Plan approved a residential cap of 15,000 base units plus a maximum potential of 2,038 density bonus units pursuant to state legislation. Based on approvals since 2010 and consistent with the 2015 IBC Traffic Study Update, the total number of density bonus units equals 1,794 DU, less than the 2,038 DU maximum, bringing the total number of DUs to 16,794 DUs, instead of 17,038 DUs assumed in 2010. The 2015 Traffic Fee Nexus Update also assumed that all remaining density bonus units will be charged fees consistent with the market-value base units.

In determining the remaining development subject to traffic impact fees, previous DAs and prepaid fees were considered. In 2005, the City of Irvine included an option for developers to prepay fees for projects under consideration to avoid updated fee adjustments that might occur subsequent to the 2005 update. Developers took advantage of this option and fees were paid for DUs and office equivalency square footage (SF). While there may be prepayment for specific projects that did not move forward based on the past fluctuating economic climate, the prepayment remains valid for future development projects for those identified parcels. As a result, these units and office equivalency SF were excluded from this update. In addition, for the following three developments, fees were paid after the "snap-shot" date for this update (July 31, 2015). Hence, the quantities associated with these developments were included for the 2015 update, however, the prepaid fees from these developments will remain valid and these developments will not be subject to new fees developed through this update.

- 16103 Derian Avenue (formerly 17275 Derian Avenue)
- 360 Fusion (formerly Murphy Apartments, 2852 McGaw Avenue, 17321-17351 Murphy Avenue)
- Main and Jamboree Apartments (2699-2719 White Road, 2772 Main Street)

3.4.1 Dwelling Unit Distribution – 2015 Update

This section presents the status of the maximum allowable dwelling units (DUs) within IBC. The land use assumption for the 2015 IBC Traffic Study Update assumes a total of 7,060 DUs (6,676 base DUs plus 384 density bonus DUs) on the ground in 2015, and 16,794 DUs (15,000 base DUs plus 1,794 density bonus DUs) in buildout Year 2035. Table 3.4 presents a status breakdown of the remaining DUs between Year 2035 and Year 2015. At the time of this update, 122 DUs (60 base DUs and 62 density bonus DUs) did not have a status reported, i.e. were not under construction nor approved or pending. The table indicates that for much of the remaining IBC DUs, fees were prepaid, hence only a few developments remain that will be subject to the updated fees developed as part of this update effort.

Table 3.5 presents the breakdown of land use quantities that will be subject to the updated fee, and Appendix G presents details of developments by parcel.

Table 3.4: IBC Dwelling Unit Summary

Base Units	Density Bonus Units	Total	Details
15,000	1,794	16,794	Maximum allowable DUs allowed for IBC Vision Plan Traffic Program
6,676	384	7,060	DUs on the ground in 2015
4,065	*23*	*4,088*	*DUs Existing at time of approval of Vision Plan*
2,611	*361*	*2,972*	*DUs Existing (on the ground) between 2010 and 2015*
Breakdown of Remaining Units between Year 2035 and Year 2015			
Base Units	Density Bonus Units	Total	Details
8,324	1,410	9,734	Remaining DUs between Year 2015 and Year 2035
8,264	1,348	9,612	Total DUs: under construction/approved/pending
2,020	*323*	*2,343*	*Units Under Construction accounted between 2010 and 2015*
836	*228*	*1,064*	*Units Approved – IBC fees paid between 2010 and 2015*
600	*148*	*748*	*Units Approved – IBC fees paid after 07/31/15 snapshot date* *16103 Derian Avenue* *360 Fusion* *Main and Jamboree Apartments*
2,887	*312*	*3,199*	*Units Approved – no IBC fees paid*
8	*0*	*8*	*Units Approved - fees paid prior to 2010*
1,913	*337*	*2,250*	*Units In Process / Pending - no fees paid*
60	62	122	DUs not associated with known projects*

*as of the snapshot date of July 31, 2015
Source: City of Irvine

Table 3.5: Future Land Use Intensity Subject to the Updated Traffic Fee

	Base (DU)	Density Bonus (DU) *	TOTAL (DU)	Extended Stay (Rooms)	Hotel (Rooms)	Retail Mix (Sq. ft.)	Office (Sq. ft.)	Industrial Mix (Sq. ft.)	Mini Ware-House (Sq. ft.)
2010 Baseline (for reference)	4,779	232	5,011	174	2,322	1,341,002	174	14,700,922	348,056
2015 Baseline (on the ground conditions) [1]	6,676	384	7,060	474	2,322	1,384,000	26,639,000	13,934,000	379,000
2035 Buildout Cumulative with Project	15,000	1,794	16,794	1,049	2,653	1,690,000	34,286,000	12,339,000	549,000
Remaining Development (2015 to 2035)	8,324	1,410	9,734	575	331	306,000	7,647,000	-1,595,000	170,000
Central Park West and Park Place Development (not subject to updated fee per their individual DAs)	2,277	128	2,405	0	0	149,250	2,674,820	0	0
ADJUSTED Remaining Development between 2015 and 2035 (quantities reflect subtraction of intensity related to Central Park West and Park Place DAs) [2]	6,047	1,282	7,329	575	331	156,750	4,972,180	-1,595,000	170,000
Other Developments with prepaid fees prior to 07/31/15 snapshot date	*1,987*	*423*	*2,410*	*161*	*0*	*3,224*	*0*	*0*	*0*
REMAINING DEVELOPMENT SUBJECT TO UPDATED TRAFFIC FEE [3]	4,060	859	4,919	414	331	153,526	4,972,180	-1,595,000	170,000
LAND USE BREAKDOWN									
DEVELOPMENT AGREEMENTS									
Central Park West									
Existing (Fees Paid)	*646*	*0*	*646*	*0*	*0*	*0*	*0*	*0*	*0*
Under Construction (Fees Paid)	*16*	*0*	*16*	*0*	*0*	*0*	*0*	*0*	*0*
Approved (Fees not paid)	*613*	*0*	*613*	*0*	*0*	*26,688*	*0*	*0*	*0*
TOTAL	1,275	0	1,275	0	0	26,688	0	0	0
Park Place									
Existing (Fees Paid)	*1,442*	*232*	*1,674*	*0*	*190*	*0*	*0*	*0*	*0*
Under Construction (Fees Paid)	*861*	*128*	*989*	*0*	*0*	*0*	*0*	*0*	*0*
Approved (Fees not paid)	*787*	*0*	*787*	*0*	*0*	*122,562*	*2,674,820*	*0*	*0*
TOTAL	3,090	360	3,450	0	190	122,562	2,674,820	0	0

Table 3.5: Future Land Use Intensity Subject to the Updated Traffic Fee

	Base (DU)	Density Bonus (DU) *	TOTAL (DU)	Extended Stay (Rooms)	Hotel (Rooms)	Retail Mix (Sq. ft.)	Office (Sq. ft.)	Industrial Mix (Sq. ft.)	Mini Ware-House (Sq. ft.)
OTHER DEVELOPMENTS (INCLUDES HINES, AVALON BAY, ALTON CONDOS DAs)									
Approved (Fees Paid prior to 2010)	*8*		*8*						
Existing (Fees Paid)	*523*	*129*	*652*	*290*	*0*	*0*	*415,696*	*40,753*	*257,525*
Under Construction (Fees Paid)	*1,143*	*195*	*1,338*	*161*	*0*	*3,224*	*0*	*0*	*0*
Approved (Fees Paid)	*836*	*228*	*1,064*	*0*	*0*	*0*	*0*	*0*	*0*
Demolished/Pending Demo(Fees not paid)	*0*	*0*	*0*	*0*	*0*	*0*	*41,609*	*248,246*	*0*
In Process / Pending (Fees not Paid)	*1,913*	*337*	*2,250*	*0*	*0*	*0*	*0*	*0*	*0*
Approved (Fees Paid after 07/31/15) [4]	*600*	*148*	*748*	*0*	*0*	*0*	*0*	*0*	*0*
Approved (Fees not paid)	*1,487*	*312*	*1,799*	*0*	*0*	*15,500*	*785,000*	*0*	*0*
TOTAL	6,510	1,349	7,859	451	0	18,724	1,242,305	288,999	257,525

Source: City of Irvine
* Density Bonus Units will be charged fees consistent with the market value
[1] Quantities includes land use that was on the ground prior to 2015
[2] Backing out quantities for CPW and Park West (only "Under Construction" and "Approved")
[3] Obtained by subtracting quantities that are either "Under Construction" or "Approved" for which fees are already paid
[4] Developments that paid fees after the July 01, 2015 deadline. Hence the fees and associated LU intensity will be included in the fee calc, but these developments will not be subject to new 2017 fees

The remaining quantities of land use subject to the updated fees were determined based on the following procedures, with an example provided in Table 3.6 relating to the residential base units:

- 1: Calculate difference in land use quantities between Year 2015 and Year 2035.
- 2: Calculate land use quantities for Central Park West and Park Place DAs (see Section 2.9 for discussion) to be subtracted from the first procedure above.
- 3: Calculate quantities of land use from other developments where the developer has prepaid IBC fees within the "snap shot" period for this update, for subtraction from the second procedure above. For the three developments where fees were paid after the "snap shot" deadline, the quantities were included for the calculation, but these developments will not be subject to new fees.
    - Any quantities designated as "existing" in Table 3.5 and Table 3.6 were not subtracted because they were included in the quantities that represent Year 2015 on the ground conditions.

Table 3.6: Example Procedures to Determine Land Use Subject to Updated Fee

Procedure	Land Use Description	Quantities	Calculation
1.	Residential Land Use considered for 2015 Baseline	6,676 DU	
	Residential Land Use considered for 2035 Buildout	15,000 DU	15,000 – 6,676 = 8,324 DU
2.	Development Agreements (note: "existing" quantities were not subtracted because these are already included in the 2015 on the ground conditions (Baseline) Central Park West: 1,275 *Existing: 646 (not included in this calculation)* *Under Construction: 16* *Approved: 613* Park Place: 3,090 *Existing: 1,442 (not included in this calculation)* *Under Construction: 861* *Approved: 787*	(16+613) + (861+787) = 2,277 DU	8,324 – 2,277 = 6,047 DU
3.	Other Developments (note: "existing" quantities were not subtractedbecause these are already included in the 2015 on the ground conditions (Baseline); developments that paid fees after the 07/31/15 snapshot date were not subtracted) *Approved (fees paid prior to 2010): 8* *Existing: 523 (not included in the calculation)* *Under Construction (Fees Paid): 1,143* *Approved (Fees Paid): 836* *Demolished/Pending Demo(Fees not paid): 0* *In Process / Pending (Fees not Paid): 1,913* *Approved (Fees Paid after 07/31/15): 600* *Approved (Fees not paid): 1,487*	8+1,143+836 = 1,987 DU	6,047 – 1,987 = 4,060 DU

Source: City of Irvine, HDR

3.5 Step 5: Estimate of Total Development Intensity Value (DIV)

Since 1992, the IBC study area has had provisions in place to allow for Transfers of Development Rights (TDRs) through the creation of a Development Intensity Value (DIV) budget system in which an allocation of AM, PM and ADT DIVs are assigned to each property in the IBC. These DIVs must be transferred in blocks (AM, PM and ADT) to other properties through a conditional use permit process and accompanying traffic study. The total DIVs associated with the remaining development required for full buildout of the Vision Plan was calculated by applying the IBC trip generation rates to the land use quantities.

Table 3.7 presents the established DIV rates applied in this update and is consistent with those used for the Vision Plan Traffic Fee Nexus Study. Based on the remaining development subject to the updated traffic fee determined in Section 3.4, Step 4, multiplied by the IBC DIV rates, the total DIVs equate to 10,263 (refer to Table 3.8). Consistent with the methodology used for the Vision Plan Traffic Fee Nexus Study and previous IBC fee reports, the PM peak hour DIV rates were applied for all land uses because for a majority of the land uses, the PM peak hour rate is the maximum DIV rate. The PM peak hour rates represent the maximum DIV rate for all IBC land use categories with the exception of industrial and mini-warehouse uses; however for those uses, the DIV rates are significantly less in comparison to the other land uses.

Table 3.7: IBC Land Use DIV Rates

Trip Rate	Residential (per DU)	Extended Stay (per Room)	Hotel (per Room)	Retail Mix (per sq. ft.)	Office (per sq. ft.)	Industrial Mix (per sq. ft.)	Mini Warehouse (per sq. ft.)
PM Peak Hour	0.52	0.42	0.68	0.00696	0.00138	0.00042	0.00027

Source: City of Irvine, ITE, Table 4, IBC Vision Plan Traffic Fee Nexus Study, January 2011

The Vision Plan utilizes a flexible zoning concept, meaning that to account for the planned increase in residential units under the Vision Plan, quantities of planned land uses from other categories such as manufacturing and their associated development intensity would be reduced. This is the reason for the negative quantities (see row "Remaining Development (2015 to 2035)) identified in Table 3.5 and Table 3.8. If the quantities of land uses that were assumed to be developed under the IBC Vision Plan do not develop as planned, the PM peak hour trips associated with those land uses will be available for use for other types of development.

The Vision Plan is an overlay zone that allows for flexibility in land use development. Once the development intensity available in the IBC (identified in Chapter 9-36 of the Zoning Ordinance) is exhausted, no additional development can take place without a General Plan Amendment that intensifies the IBC planning area. The City of Irvine continues to monitor the development patterns in the IBC annually to evaluate how the Vision Plan is taking shape, to ensure that there is sufficient development intensity for the maximum assumed residential and mixed-use development. Subsequent to this update, the reassessment of the IBC Vision Plan Traffic Study will be conducted every two years, with the next update commencing in Fall 2017.

3.6 Step 6: Normalization of Retail and Office Land Uses

In accordance with established precedent in the City and consistent with the mixed-use vision, to encourage additional commercial and retail development in the IBC, the office and retail mix land uses have been normalized in the calculation of remaining developments subject to fee. Because the retail mix land use PM peak hour trip rate is significantly higher (over 5 times higher – 0.00696 for retail mix; 0.00138 for office) than the office land use, the fees for retail mix development are normalized, creating a fee structure in which retail mix and office square footage cost is equivalent. Table 3.8 identifies the normalization of DIVs and land use for office and commercial land uses.

3.7 Step 7: Estimate Cost per DIV

The cost associated per DIV to implement the Vision Plan improvements was calculated by dividing the total program cost by the total number of normalized DIVs that must participate in the funding program. Table 3.9 estimates that the cost per DIV will be $9,032.09. Table 3.10 presents the maximum development fees for each land use category through application of the cost per DIV to the normalized DIVs associated with each category.

Table 3.8: IBC Total DIVs

Land Use	Unit	Remaining Development Subject to Updated Fee	DIVs (rounded)	Remaining Development Subject to Updated Fee (normalized quantities)	Normalized DIVs (rounded)
Residential *	DU	4,919	2,558	4,919	2,558
Extended Stay	Rooms	414	174	414	174
Hotel	Rooms	331	225	331	225
Retail Mix	Sq. Ft.	153,526	1,069	2,562,853	3,965
Office	Sq. Ft.	4,972,180	6,862	2,562,853	3,965
Industrial Mix **	Sq. Ft.	-1,595,000	-670	-1,595,000	-670
Mini-Warehouse	Sq. Ft.	170,000	46	170,000	46
TOTAL DIVs			10,263		10,263

Source: HDR
* includes Base and Density Bonus Units, since Density Bonus Units will be charged as market (Base) units
** includes manufacturing and warehouse sq. ft.

Table 3.9: Cost Estimate per DIV

Total Traffic Fee Program Cost	$92,696,238
Total number of DIVs generated	10,263
Cost per DIV	$9,032.08

Source: HDR

Table 3.10: Traffic Fee Estimates for each Land Use Category

Land Use	Unit	Remaining Development Subject to Updated Fee (normalized quantities) *	Cost per DIV (rounded)	Normalized DIVs (rounded)	Development Fees (Maximum)
Residential	DU	4,919	$9032.08	2,558	$23,104,061
Extended Stay	Rooms	414	$9032.08	174	$1,571,582
Hotel	Rooms	331	$9032.08	225	$2,032,218
Retail Mix	Sq. Ft.	2,562,853	$9032.08	3,965	$35,812,197
Office	Sq. Ft.	2,562,853	$9032.08	3,965	$35,812,197
Industrial Mix ***	Sq. Ft.	-1,595,000	$9032.08	-670	-$6,051,494
Mini Warehouse	Sq. Ft.	170,000	$9032.08	46	$415,476
			TOTAL	10,263	$92,696,238

Source: HDR
* Obtained from Table 3.8
** includes Base and Density Bonus Units, since Density Bonus Units will be charged as market (Base) units
*** includes manufacturing and warehouse sq. ft.

3.8 Step 8: Estimate Cost per Development Unit

To establish the cost per development unit, the maximum fees associated with each land use determined in Section 3.7, Step 7 are divided by the quantity associated with each land use category. Table 3.11 represents the fee per measurable unit for each land use category.

Table 3.11: Traffic Fee Summary

Land Use	Unit	Remaining Development Subject to Updated Fee	Remaining Development Subject to Updated Fee (normalized quantities)	Development Fees (Maximum)	Updated Fee ***
Residential	DU	4,919	4,919	$23,104,061	$4,697
Extended Stay	Room	414	414	$1,571,582	$3,796
Hotel	Room	331	331	$2,032,218	$6,140
Retail Mix	Sq. Ft.	153,526	2,562,853	$35,812,197	$13.97
Office	Sq. Ft.	4,972,180	2,562,853	$35,812,197	$13.97
Industrial Mix **	Sq. Ft.	-1,595,000	-1,595,000	-$6,051,494	$3.79
Mini-Warehouse	Sq. Ft.	170,000	170,000	$415,476	$2.44
				$92,696,238	

Source: HDR 2015
* Includes Density Bonus Units that will be charged fees at the same rate as Base Units
** Includes manufacturing and warehouse SF
*** Effective FY 2017-2018

Table 3.12 presents a fee comparison between the 1992 fees (at the onset of the IBC Traffic Fee Program), 2009 fees (developed through annual adjustments of the 1992 fee), 2010 fees (developed as part of the Vision Plan), 2016 fees (currently what the City charges developers – this is developed by applying annual adjustments to the 2010 fee) and proposed updated fees.

Table 3.12: IBC Fee Comparison

Land Use	Unit	IBC Traffic Fee					Increase from 2016 (factor)
		1992	2009	2010	2016	Proposed***	
Total Residential	DU	$3,734	$7,175	$1,862	$2,254	$4,697	2.08
Extended Stay	Rooms	$3,016	$5,795	$1,503	$1,820	$3,796	2.09
Hotel	Rooms	$4,883	$9,383	$2,435	$2,947	$6,140	2.08
Retail Mix	Sq. Ft.	$10.70	$20.28	$5.45	$6.60	$13.97	2.12
Office	Sq. Ft.	$10.70	$20.28	$5.45	$6.60	$13.97	2.12
Industrial Mix **	Sq. Ft.	$3.30	$5.85	$1.50	$1.82	$3.79	2.08
Mini Warehouse	Sq. Ft.	$1.85	$3.55	$0.97	$1.17	$2.44	2.09

Source: HDR 2015, City of Irvine
* Includes Density Bonus Units charged fees consistent with Base Units
** Includes manufacturing and warehouse SF
*** Effective FY 2017-2018

As can be seen in Table 3.12, the proposed fee is significantly higher than the 2010 and 2016 fees. There are a few reasons behind this increase: (a) new improvements and increases to cost of improvements, (b) fewer developments remaining that are subject to updated fees, and (3) lower remaining funds in the IBC Traffic Fee Program.

Significant Increase in Improvement Costs between 2010 and 2016

- Unit costs have increased moderately between 2010 and 2016 (when the cost estimates were developed), contributing to increase of project cost.
- Increase of right of way (ROW) support costs from 5% to 10% of construction costs, based on current trends in ROW acquisitions, have significantly increased the costs for improvements that require ROW acquisitions.
- New improvements were identified in the 2015 IBC Traffic Study Update that had not been identified in the Vision Plan Traffic Study including:
    - Von Karman/Tustin Ranch Road at Barranca Parkway and Von Karman Avenue at Alton Parkway: Although identified as two separate deficient intersections, based on the geometrics of improvements, the proximity of these adjacent intersections and the efficiency of traffic flow between them, the cost estimate considered this improvement as a corridor improvements that considered widening of Von Karman Avenue between Barranca Parkway and Alton Parkway.
    - Loop Road/Park Avenue at Warner Avenue
    - Jamboree northbound ramps at Warner Avenue
    - Culver Drive at Alton Parkway

- Increases in costs were identified for a few improvements previously identified in the 2010 IBC Traffic Fee Nexus Study. These are briefly discussed below:
    - Alton Overcrossing at SR-55: The Vision Plan Traffic Fee Nexus Study included an estimate of $17.5 million (50% of a total $35 million cost) as the City of Irvine's fair-share contribution pursuant to the agreement with Santa Ana. However, for this update, the total cost has increased to $60 million, resulting in City of Irvine's fair-share contribution of $30 million (50% of the total $60 million cost). This approximate two-fold increase in cost is attributable to the project's current definition which includes additional improvements that must be included as part of the City of Santa Ana's Alton Overcrossing at SR-55 Capital Improvement Program (CIP) project based on an updated traffic study[6] conducted by the City of Santa Ana in 2010. The cost estimate for this Overcrossing project (without the additional improvement costs) was updated in 2014 and was estimated at $55.5 million. As part of the 2015 IBC Traffic Fee Nexus Update, the cost estimate at this location was developed considering the $55.5 million estimated cost plus the cost of the additional improvements resulting from Santa Ana's 2010 traffic study including improvements at intersection #44: Red Hill Avenue at Alton Parkway; signalization and widening of Halladay Street at Alton Parkway; and signalization at Daimler Street at Alton Parkway).
    - Widening of Dyer Road between SR-55 NB on-ramp and Red Hill Avenue: The cost included in the Vision Plan Traffic Fee Nexus Study was $9 million (90% of a total estimated $10 million) based on the Barranca Parkway/Dyer Road Project Report[7] prepared in 2004. With this update, the cost for this improvement increased significantly to $22.5 million (90% of a total cost of $25 million). The Project Report was revisited to ensure that the cost estimates reflected the continuation of the Class II bike lanes on either side of Dyer Road/Barranca Parkway between Red Hill Avenue and the SR-55 NB on-ramp. The necessary widening of Barranca Parkway/Dyer Road will result in partial takes of three properties located (1) west of the railroad tracks and south of Dyer Road; (2) west of Pullman Street and south of Dyer Road; and (3) west of Pullman Street and north of Dyer Road. The partial takes of these properties and the cost for Class II bike lanes add significant costs to the project.
    - Widening of Red Hill Avenue between Main Street and MacArthur Boulevard: For this update, the cost estimate for this improvement (90% of cost) is significantly higher ($18.4 million in 2016, vs. $8.7 million in 2010) due to higher ROW costs, and is attributable to the inclusion of the bike lanes on either side of Red Hill Avenue.

Fewer number of Remaining Development Units and Square Footage Subject to Fee

- As the Vision Plan gets implemented, the number of developable units remaining decreases, resulting in fewer quantities of land use subject to updated fees.
- Since 2005, developers have been taking advantage of the option of prepayment of fees for projects under consideration (see discussion in Section 3.4), thereby further reducing the developable units (residential and non-residential) subject to fee. A comparison with the Vision Plan Traffic Fee Nexus Study shows that the total number of DIVs in 2010 were 17% higher than in 2015, or in other words, the quantity of remaining

[6] *Updated Traffic Study for Alton Avenue Overcrossing at State Route 55 Freeway and Arterial Widening in the Cities of Santa Ana and Irvine, KOA Corporation, 2010*

[7] *Project Report for the Dyer Road/Barranca Parkway Improvements (State Route 55 to Aston Street), RBF Consulting, 2004*

developable units and square footage in 2010 was greater than in 2015. The combination of developable units subject to fee and the higher cost of improvements contribute towards higher fees.

Lesser Remaining Available IBC Traffic Fund Balance

- The Vision Plan Traffic Fee Nexus Study recommended removal of several improvements originally identified in 1992 because they were deemed unnecessary. This resulted in a significant reduction of fees as can be seen in Table 3.12 (2009 vs. 2010). Hence between 2010 and 2015, the rate at which fees were imposed was lower than the pre-2010 years.
- Subsequent to the adoption of the Vision Plan, large sums of payouts were made to the Cities of Newport Beach ($3.65 million) and Tustin ($4.5 million), per the agreements between the Cities and City of Irvine (see Section 2.1 and Section 2.2).
- In addition, a sizeable amount of IBC Traffic Fee funds ($27.4 million – see Table 2.2) are allocated to implement CIP projects identified in the Vision Plan Traffic Study (improvements at the intersections of Jamboree Road at Main Street, Jamboree Road at Barranca Parkway, and the pedestrian bridge at the intersection of Jamboree Road at Michelson Drive). Lower collection rates and a higher allocation of funds to the CIP projects have led to a significantly smaller amount ($19.5 million) of remaining available Vision Plan Traffic Fee Program funds rolled over in this update as compared to 2010. Although the updated fee is higher than 2010, it still remains about 31%-35% lower than what was being charged in 2009.

4 Establishing Nexus

Section 1, Introduction discussed the requirement for a fair-share nexus between the mitigation requirements of the EIR and the traffic fees associated with the necessary mitigation improvements. The introduction further indicated a requirement to substantiate this nexus based on the adopted State legislation to ensure that fees collected are associated with development impacts and the physical improvements. The following statements fulfill the nexus requirements.

4.1 Identify the Purpose of the Impact Fee

The purpose of the 2015 IBC Traffic Fee Nexus Update is to:

- Clearly identify a fee rate to mitigate project related impacts within the IBC study area to an acceptable level of service.
- Mitigate the traffic impacts of new development within the IBC Vision Plan area under the expected buildout commensurate with the EIR Traffic Impact Mitigation Measures under CEQA and other agreements through which a fair-share of improvement costs have been contractually identified in an arms length negotiation.

The 2015 IBC Traffic Study Update evaluated the circulation system of the IBC study area under With and Without Project conditions. The study accounted for approved and pending projects within the IBC study area and forecast regional growth in both interim-year 2020 and Post-2035 buildout conditions. The Without Project conditions for each scenario assumed existing 2015 on-the ground development. The With Project conditions for each scenario included expected development within the IBC area, including the addition of residential DUs through the conversion of non-residential office equivalency square footage as identified in the traffic study.

Utilizing the intersection capacity utilization (ICU) analysis that measures peak hour intersection capacity and performance to assess impacts, the 2015 IBC Traffic Study Update identified project impacts at locations within and outside the City of Irvine, based on the City's TIA guidelines (2004) and those set by each of the affected jurisdiction/agencies (Caltrans and the cities of Newport Beach, Tustin, Santa Ana, Costa Mesa). For details on project- related thresholds, refer to the 2015 IBC Traffic Study Update[8]. As the traffic impacts are the responsibility of the project under CEQA, it is the responsibility of the project to mitigate the project impacts or contribute its fair-share towards each improvement. Thus, the Vision Plan is responsible for mitigating all the project traffic impacts to an acceptable level of service or to existing conditions performance levels. All future development under the Vision Plan will contribute to future circulation system impacts identified in the traffic study and will pay for the necessary improvements to deliver an acceptable level of service.

4.2 Identify the Use of the Impact Fee

The use of the proposed fee is the following:

- To fund the Vision Plan circulation improvements within the City of Irvine.
- To fund improvements to the State Highway System that will contribute to enhanced operations.
- To compensate adjacent jurisdictions for traffic impacts as a result of implementation of the Vision Plan.

The traffic fee will be used to mitigate traffic impacts from the buildout of the Vision Plan both within Irvine and in neighboring jurisdictions/agencies. The fee will be used to pay for improvements that accommodate residential

[8] *Irvine Business Complex Vision Plan – 2015 Five-Year Traffic Study Update, Iteris, HDR, 2016*

intensity increases within the IBC. Without the improvements, the project impacts would not be mitigated as necessary.

4.3 Determine Reasonableness Relationships

As discussed in Section 1.2, Purpose of the 2015 Update to the Vision Plan Nexus Study, California's Mitigation Fee Act creates the legal framework for local governments to assess new fees toward future development to pay its fair-share of the infrastructure cost necessary to serve new residents and businesses. AB 1600 stipulates that a local government must establish a "nexus" or reasonable relationship between a proposed fee and the impacts attributable to the developments paying the fee:

4.3.1 Reasonableness Between Use of Fee and the Type of Development on which the Fee is imposed

- IBC fees will be applied directly to the funding needs for each identified improvement within the City of Irvine and towards any pending financial obligation determined through existing agreements with adjacent jurisdictions regarding Vision Plan traffic impacts.
- IBC fees are collected from new development within the IBC that directly increases traffic on IBC study area roadways and impacts the circulation system component identified in the 2015 IBC Traffic Study Update.
- The 2015 IBC Traffic Study Update identifies the additional traffic volumes generated by new IBC development.
- Project-related fair-shares developed as part of the 2015 IBC Traffic Fee Nexus Update document the proportional responsibility of the project to traffic impact funding requirements.

The fees will be used to construct the improvements that will enable the circulation system to function at acceptable levels of service in Irvine and in adjacent jurisdictions.

4.3.2 Reasonableness Between Need for the Improvements and the Type of Development on which Fee is imposed

- As the IBC continues to develop, increasing traffic will necessitate improvements throughout the study area to maintain efficient circulation.
- Without implementation of project-related improvements, the circulation system will continue to deteriorate as new development compounds traffic operations deficiencies on the roadway network.

The fee collected is based on the forecasted number of trips the proposed development will generate at buildout. The need for the improvements is based on the analysis presented in the 2015 IBC Traffic Study Update. The fee is associated directly with new development within the IBC and the number of total peak hour trips that the new development is expected to generate. As the Vision Plan area develops, fees will be collected and improvements constructed to keep pace with new development, providing a circulation system throughout the IBC that operates at an acceptable level of service.

4.3.3 Reasonableness Between Amount of the Fee and Cost of Public Good (IBC Transportation Needs) attributable to the Type of Development

- Development fees have been defined based on funding of the City of Irvine's fair-share responsibility of the Vision Plan improvements outside the City within the Vision Plan study area, and 90% of the City of Irvine's responsibility for improvements within the City of Irvine. It is assumed that outside funding sources, including federal, state and county grants, can supplement the remaining 10% of development fees to implement improvements within the City of Irvine.

- The fee is supported by all new development at a rate that reflects the relative traffic impact of that development.
- The amount of the fee is directly related to the level of development associated with each new IBC project. The calculation of the impact fee is based upon the recognition that differing types of developments generate differing amounts of trips. The fee is based on the forecasted number of peak trips generated by the proposed development projects.

The total fee includes a program administration fee. This administration fee is required to ensure that the program functions properly and the traffic improvements are implemented appropriately.

To further demonstrate reasonableness of the fees, the updated IBC Transportation fees were compared with another major activity center in Orange County, the Platinum Triangle in Anaheim, California. Table 4.1 compares traffic fees imposed on developments within the Platinum Triangle with those proposed for IBC, in this update.

Table 4.1: Traffic Fee Comparison between Platinum Triangle and IBC

Land Use	Unit	Anaheim Citywide Fee *	Platinum Triangle Supplemental Fee *	Platinum Triangle Total Fee	IBC Updated Traffic Fee **
Residential	DU	$2,029	$3,702	$5,731	$4,697
Extended Stay	Room				$3,796
Hotel	Room	$1,474		$1,474	$6,140
Retail Mix	Sq. Ft.	$5.50	$50.00	$55.50	$13.97
Office	Sq. Ft.	$3.67	$12.00	$15.67	$13.97
Industrial Mix **	Sq. Ft.	$1.42	$3.00	$4.42	$3.79
Mini-Warehouse	Sq. Ft.				$2.44

Source: HDR 2015, City of Anaheim
* City of Anaheim Fee Schedule (http://www.anaheim.net/DocumentCenter/View/202)
** Effective FY 2017-2018

5 Conclusion

This 2015 IBC Traffic Fee Nexus Update has been prepared to reiterate the "nexus" for the development fees needed to fund necessary improvements to the circulation system. The updated traffic fee rates will be effective in the upcoming FY 2017-18. As noted in the Vision Plan EIR, there are overriding considerations for jurisdictional circulation system improvements outside the City of Irvine. As these improvements are not under the City of Irvine's jurisdiction, the City cannot guarantee that these improvements are implemented. However, it is the responsibility to contribute fair-share to the improvements through traffic impact fees in order to fund the improvements within these adjacent jurisdictions. During the development of the IBC Vision Plan, the City reached agreements with Newport Beach, Tustin and Caltrans, and amended an existing agreement with Santa Ana regarding its financial responsibilities to mitigate traffic impacts in each jurisdiction due to the buildout of the Vision Plan.

Since 2010, through the agreements with the Cities of Newport Beach and Tustin, the City of Irvine paid Tustin and Newport Beach a combined amount of $8.15 million as its fair-share, and thereby, has been absolved from any future fair-share contribution provided the City does not exceed its maximum cap on residential units of 15,000 base dwelling units (plus 1,794 density bonus dwelling units pursuant to state law.) For Caltrans, the City of Irvine is obligated to provide, through IBC fee collection, a total amount of $7,025,962, when the agency proceeds with the implementation of improvements at its impacted facilities. Currently the IBC fund has earmarked $440,663 towards that payment. Based on the amended agreement with Santa Ana, the City of Irvine is obligated to contribute $52,670,912 towards three improvements in Santa Ana (widening of Dyer Road, Alton Parkway Overcrossing at SR-55, and Flower Street at Segerstrom Avenue).The agreement with Costa Mesa was not revised and the City of Irvine, through the proposed fee, will collect an amount of $28,970 to contribute towards the improvement at SR-55 Frontage Road SB Ramps at Paularino Avenue.

Based on this update, the proposed fees are significantly higher than the current 2016 fees due to several factors which include additional improvement locations, significant increases in improvement costs between 2010 and 2015, fewer number of remaining developments that will share the cost of the improvements and a lesser amount of remaining available IBC funds that can be applied towards the improvements. However, even with the increased fees, they remain about 30%-35% lower than the 2009 IBC traffic fees, in-place prior to the adoption of the Vision Plan in 2010.

Appendix A: 2009 Settlement Agreement between City of Irvine and City of Newport Beach

SETTLEMENT AGREEMENT AND MUTUAL RELEASE OF CLAIMS

This Settlement Agreement and Mutual Release of Claims ("Agreement and Release") is made and entered into as of November 24, 2009 (the "Effective Date") by and between the CITY OF NEWPORT BEACH ("Newport Beach"), a California municipal corporation, and the CITY OF IRVINE ("Irvine"), a California municipal corporation. Newport Beach and Irvine are sometimes referred to in this Agreement and Release individually as a "Party" and collectively as the "Parties."

Recitals

A. Newport Beach is a petitioner and plaintiff in the below-described legal actions commenced and pending against Irvine, which are sometimes referred to collectively as the "Actions."

1. On April 26, 2007, Newport Beach and the City of Tustin ("Tustin") filed an action in the Orange County Superior Court entitled *City of Newport Beach and City of Tustin v. City of Irvine, et al. (Starpointe Ventures and West Millennium Homes)*, bearing Case No. 07CC01264. This action challenges Irvine's approval of the 82-unit Martin Street condominium project, situated within the Irvine Business Complex ("IBC"), and Irvine's certification of an environmental impact report in connection with the project approval. The trial court entered judgment in favor of Newport Beach and Tustin and against Irvine, and subsequently awarded attorneys' fees in favor of Newport Beach and Tustin and against Irvine. Irvine has appealed the judgment and the award of attorneys' fees (Court of Appeal Case Nos. G040749 and G041113).

2. On April 26, 2007, Newport Beach and Tustin filed an action in the Orange County Superior Court entitled *City of Newport Beach and City of Tustin v. City of Irvine, et al. (Starpointe Ventures, Avalonbay Communities, Inc. and Alton Associates)*, bearing Case No. 07CC01265. This action challenges Irvine's approval of the 170-unit 2851 Alton condominium project, situated within the IBC, and Irvine's certification of an environmental impact report in connection with the project approval. The trial court entered judgment in favor of Newport Beach and Tustin and against Irvine, and subsequently awarded attorneys' fees in favor of Newport Beach and Tustin and against Irvine. Irvine has appealed the judgment and the award of attorneys' fees (Court of Appeal Case Nos. G040757 and G041107). Real party in interest Alton Associates has also appealed the judgment (Court of Appeal Case No. G040759) ("Alton Associates Appeal").

3. On December 12, 2008, Newport Beach and Tustin filed an action in the Orange County Superior Court entitled *City of Newport Beach and City of Tustin v. City of Irvine, et al. (Starpointe Ventures and Hines)*, bearing Case No. 30-2008-00228855-CU-WM-CXC. This action challenges Irvine's approval of a multi-phase project consisting of up to 785,000 square feet of office space and 15,500 square feet of retail/restaurant space, situated within the IBC, and Irvine's certification of an environmental impact report in connection with the project approval. This action is still pending in the Superior Court and no final disposition has occurred.

4. On April 29, 2009, Newport Beach and Tustin filed an action in the Orange County Superior Court entitled *City of Newport Beach and City of Tustin v. City of Irvine, et al.*, bearing Case No. 30-2009-00264696-CU-WM-CXC. This action challenges Irvine's approval of a Zoning Code Technical Update, including a new Accessory Retail Business designation as a permitted use within the IBC, and Irvine's determination that the approval was exempt from review under the California Environmental Quality Act ("CEQA"), codified as Public Resources Code section 21000 *et seq*. This action is still pending in the Superior Court and no final disposition has occurred.

B. The Parties mutually desire to enter into this Agreement and Release to achieve a full and complete resolution of all claims arising from or relating to the disputes between them concerning the Actions and the subject matters raised and implicated by the Actions.

NOW, THEREFORE, in consideration of the facts recited above, and the covenants, conditions and promises set forth below, the Parties agree as follows:

Agreement and Release

1. **Recitals Incorporated.** The Foregoing Recitals are incorporated herein and made a part of this Agreement and Release.

2. **Dismissal of Trial Court Actions.** Within ten (10) business days of the Effective Date of this Agreement and Release, Newport Beach shall personally deliver to Irvine's counsel properly completed and executed Requests for Dismissal with prejudice of the entire action as to Newport Beach only for the Actions entitled *City of Newport Beach and City of Tustin v. City of Irvine, et al. (Starpointe Ventures and Hines)*, bearing Case No. 30-2008-00228855-CU-WM-CXC, and *City of Newport Beach and City of Tustin v. City of Irvine, et al.*, bearing Case No. 30-2009-00264696-CU-WM-CXC, as further described in paragraphs A.3 and A.4 above.

3. **Dismissal of Court of Appeal Actions.**

A. Irvine Appeals. Within five (5) business days of the Effective Date of this Agreement and Release, Newport Beach and Irvine shall file a Stipulated Request for Dismissal of the appeals as to Newport Beach only for the Actions entitled *City of Newport Beach and City of Tustin v. City of Irvine, et al. (Starpointe Ventures and West Millennium Homes)* and *City of Newport Beach and City of Tustin v. City of Irvine, et al. (Starpointe Ventures, Avalonbay Communities, Inc. and Alton Associates)*, as further described in paragraphs A.1 and A.2 above. Each Stipulated Request for Dismissal shall provide that upon remand of such portion of the Action to the Superior Court following issuance of a remittitur, Newport Beach and Irvine will file a stipulation for the vacation of the judgments and orders that are the subject of the appeal and for the dismissal with prejudice of the entire action as to Newport Beach only. Such stipulation shall also include an agreement that Newport Beach and Irvine shall each bear its own attorneys' fees and costs, and that for purposes of Newport Beach's attorneys' fees and costs, such amount would be fifty percent (50%) of the total amount of fees and costs, whether or not awarded, incurred by Newport Beach and Tustin jointly up to the date of the entry of dismissal.

B. Alton Associates Appeal. If Alton Associates agrees, within five (5) business days of the Effective Date of this Agreement and Release, or as soon thereafter as reasonably practicable, Newport Beach, Alton Associates and Irvine shall file a Stipulated Request for Dismissal of the appeal as to Newport Beach only for the Alton Associates Appeal. The Stipulated Request for Dismissal shall provide that upon remand of such portion of the Alton Associates Appeal to the Superior Court following issuance of a remittitur, Newport Beach, Alton Associates and Irvine will file a stipulation for the vacation of the judgment and orders that are the subject of the Alton Associates Appeal and for the dismissal with prejudice of the entire action as to Newport Beach only. Alton Associates must agree to bear its own attorneys' fees and costs in the action and the appeal. This Agreement and Release is conditioned upon the agreement of Alton Associates to take the action reflected in this paragraph. If Alton Associates does not agree to take this action, this Agreement and Release is void and without force or effect.

C. Forbearance. In addition to the obligations set forth above in this paragraph, Newport Beach shall not take or cause to be taken any actions to enforce or facilitate the enforcement of the judgments and orders issued in any of the Actions.

4. **Agreement Not To Bring Further Challenges; Agreement to Cooperate.** The Parties, and each of them, shall not initiate, join, participate in, provide funding to or assist any third party in the initiation or participation in, any legal or administrative action or proceeding challenging any of the following:

A. The approval of land use and development entitlements (including but not limited to tentative and final subdivision maps, conditional use permits, lot line adjustments, and grading and building plans and permits) for any development project in the other Party's city, so long as the project substantially conforms to the other Party's applicable General Plan, inclusive of any current formally submitted proposed amendments to Newport Beach's General Plan and the currently forecast development in Irvine's draft IBC Vision Plan. While not restricting Irvine's discretion to adopt a final IBC Vision Plan, the agreement by Newport Beach to not challenge the IBC Vision Plan as set out on this paragraph 4 is conditioned upon Irvine's adoption of the IBC Vision Plan alternative that provides for no greater than 15,000 residential dwelling units, excluding those units allowed as a matter of state law mandates (e.g., density bonus requirements), within the IBC.

B. The final approval of Irvine's IBC Vision Plan (including but not limited to the substance, merits, nature, scope, methodology, assumptions, analyses or conclusions) so long as such final plan substantially conforms to Irvine's draft IBC Vision Plan. In this regard, the Parties acknowledge and agree that the draft IBC Vision Plan may be modified as necessary to reflect the land use changes generally described in Exhibit A to that certain Settlement Agreement and Mutual Release between Allergan, Inc. and Irvine and the City Council of the City of Irvine, dated on or about August 18, 2009 ("Allergan Settlement Agreement"), a copy of which is appended as Exhibit "1" to this Agreement and Release and is hereby incorporated by this reference, and further acknowledge and agree that such land use changes are generally consistent with Irvine's draft IBC Vision Plan. While not restricting Irvine's discretion to adopt a final IBC Vision Plan, the agreement by Newport Beach to not challenge the IBC Vision Plan

as set out on this paragraph 4 is conditioned upon Irvine's modification of the IBC Vision Plan in a manner consistent with the Allegan Settlement Agreement.

C. The final approval of any current formally submitted proposed amendments to Newport Beach's General Plan and further including a technical modification of the Newport Beach General Plan for development in the Airport Business District to allow for the park in the Conexant project to be bounded on two sides by a public road.

D. Adjustments to the IBC Transportation Development Fee Program, provided that such adjustments are not in conflict or inconsistent with the provisions of or any obligations under this Agreement and Release.

E. Approval or implementation of any transit and/or transportation improvements supporting development activities in the IBC substantially conforming to the IBC Vision Plan.

F. Any determination under CEQA with respect to any of the foregoing.

The Parties, and each of them, further agree to cooperate in timely seeking and providing comments, both verbal and in writing, to each other on any proposed changes in their respective planning documents prior to any such change being presented to the respective decision-making body.

5. **Payment of Traffic/Transportation Impact Mitigation Fees.** Within twenty (20) business days of the Effective Date of this Agreement and Release, Irvine shall pay Newport Beach, and Newport Beach agrees to accept and expend, the sum of Three Million Six Hundred Fifty Thousand Dollars ($3,650,000.00) to be used exclusively for the engineering, design and appropriately-timed construction of traffic and transportation improvements situated within the City of Newport Beach portion of the Traffic Study Area that was utilized in the previously circulated Draft Environmental Impact Report for the IBC Vision Plan ("Traffic Study Area"), such expenditures to be as deemed appropriate by Newport Beach in its sole discretion to improve traffic conditions in the Traffic Study Area as necessitated by development in the IBC. A map depicting and describing the Traffic Study Area is appended as Exhibit "2" to this Agreement and Release and is hereby incorporated by this reference. The Parties acknowledge and agree that Irvine's contribution of the sum set forth above shall and does constitute Irvine's fair share obligation toward traffic and transportation improvements within the City of Newport Beach arising from or related to development in the IBC contemplated by and in substantial conformance to the IBC Vision Plan so long as Irvine adopts the alternative that provides for no greater than 15,000 residential dwelling units, excluding those units allowed as a matter of state law mandates (e.g., density bonus requirements), within the IBC. The Parties further acknowledge and agree that Irvine's contribution of the sum set forth above shall and does fully discharge Irvine's obligation to pay a fair share toward all traffic and transportation improvements situated within the City of Newport Beach necessitated by any past project approvals and future project approvals contemplated by and in substantial conformance to the IBC Vision Plan so long as Irvine adopts the alternative that provides for no greater than 15,000 residential dwelling units, excluding those units allowed as a matter of state law mandates (e.g.,

density bonus requirements) within the IBC, and so long the IBC Vision Plan is modified to be consistent with the Allergan Settlement Agreement.

6. **Irvine Support of Newport Beach Park.** Irvine will support the efforts of Newport Beach to obtain and improve a park site on property currently owned by the University of California, Irvine as more specifically described in Exhibit "3" appended hereto and hereby incorporated by this reference. Newport Beach acknowledges and agrees that absent a further agreement to the contrary, Irvine shall have no financial or programmatic responsibility for any such park. Newport Beach, in its sole discretion and upon such terms and conditions as it deems appropriate or necessary, may hereafter consider entering into a joint use agreement with Irvine for any such park. Newport Beach does not and shall not have any obligation to enter into a joint use agreement with Irvine for any such park.

7. **Release of Claims.**

A. Each Party, including its mayors, councilmembers, officers, employees, agents, assigns and attorneys, hereby releases and forever discharges the other Party, including its mayors, councilmembers, officers, employees, agents, assigns and attorneys, from any and all claims, demands, causes of action, obligations, damages, injuries, attorneys' fees, costs, and liabilities of any nature whatsoever, whether or not now known, suspected or claimed, which the Party ever had, now has or may claim to have against the other Party (whether directly or indirectly), by reason of any act or omission concerning any matter, event, incident, encounter, cause, or thing relating to or arising out of the events that underlie and are the subject of the Actions, and any claims asserted or which could be or could have been asserted in the Actions.

B. Each Party acknowledges that it may later discover facts different from or in addition to those it now knows or believes to be true with respect to the claims, demands, causes of action, obligations, damages, and liabilities of any nature whatsoever that are the subject of the releases set forth in this Agreement and Release. The Parties expressly agree to assume the risk of the possible discovery of additional or different facts, and agree that this Agreement and Release shall be and remain effective in all respects regardless of such additional or different facts.

C. The releases set forth above are general releases of all claims, demands, causes of action, obligations, damages, and liabilities of any nature whatsoever that are described in those releases and are intended to encompass all known and unknown, foreseen and unforeseen claims which Newport Beach and Irvine may have against each other relating to or arising out of the events that underlie and are the subject of the Actions, except for any claims that may arise from the terms of this Agreement and Release.

D. By releasing and forever discharging claims both known and unknown as hereinabove provided, the Parties, and each of them, expressly waive and relinquish all rights and benefits they may have under section 1542 of the Civil Code of the State of California, which reads as follows:

> "[General Release -- Claims Extinguished.] A general release does not extend to claims which the creditor does not know or suspect to

exist in his favor at the time of executing the release, which if known by him must have materially affected his settlement with the debtor."

E. It is agreed and understood that these releases do not affect the rights or actions available to the City of Tustin, if there are any, to pursue its pending actions or future actions. It is further agreed and understood that Agreement and Release is not intended, nor is it to be construed, to expand the rights of Tustin with regard to the collection of attorneys' fees and costs that have previously been awarded in the Actions in favor of Tustin and any further attorneys' fees and costs incurred but not yet awarded.

8. **Responsibility for Attorneys' Fees, Costs and Litigation Expenses.** Newport Beach and Irvine each shall be wholly responsible for the payment of their respective attorneys' fees, cost and litigation expenses incurred in the Actions.

9. **No Other Pending Actions.** The Parties each warrant and represent that they have not filed any complaints or claims (other than the Actions referenced above) against each other with any local, state or federal agency or court, and that they will not do so at any time hereafter with respect to the event that underlie and are the subject of the Actions, the claims that were asserted or that could be or could have been asserted in the Actions, or any claims arising out of the Actions.

10. **No Assignment of Claims.** The Parties each warrant and represent that they have made no assignment, and will make no assignment, of any claim, cause of action, right of action or any right of any kind whatsoever, embodied in any of the claims and allegations referred to herein, and that no other person or entity of any kind had or has any interest in any of the demands, obligations, actions, causes of action, debts liabilities, rights, contracts, damages, attorneys' fees, costs, expenses, losses or claims referred to herein. Each Party hereby agrees to indemnify, defend and hold harmless the other Party as against any claim based on or arising out of any assignment, transfer or sale in violation of the foregoing warranty.

11. **Non-Admission of Liability.** The Parties acknowledge and agree that this Agreement and Release is a settlement of disputed claims. Neither the fact that the Parties have settled nor the terms of this Agreement and Release shall be construed in any manner as an admission of any liability by Irvine or any affiliated person or entity, all of whom consistently have taken the position that they have no liability whatsoever to Newport Beach.

12. **Successors and Assigns.** This Agreement and Release, and all of the terms and provisions hereof, shall be binding upon and shall inure to the benefit of the Parties and their respective successors, assigns and legal representatives.

13. **Knowing and Voluntary.** The Parties each specifically represent that prior to signing this Agreement and Release, they have been provided a reasonable period of time within which to consider whether to accept this Agreement and Release. The Parties each represent that they have each carefully read and fully understand all of the provisions of this Agreement, and that they are voluntarily, knowingly, and without coercion entering into this Agreement and Release based upon their own judgment.

14. **Assistance of Counsel.** The Parties each specifically represent that they have consulted to their satisfaction with and received independent advice from their respective counsel prior to executing this Agreement and Release concerning the terms and conditions of this Agreement and Release.

15. **Enforcement Costs.** Should any legal action be required to enforce the terms of this Agreement and Release, the prevailing Party shall be entitled to reasonable attorneys' fees and costs in addition to any other relief to which that Party may be entitled.

16. **Severability.** Should any portion, word, clause, phrase, sentence or paragraph of this Agreement and Release be declared void or unenforceable, such portion shall be considered independent and severable from the remainder, the validity of which shall remain unaffected.

17. **Construction.** The Parties acknowledge that this Agreement and Release was jointly prepared by them, by and through their respective legal counsel, and any uncertainty or ambiguity existing herein shall not be interpreted against any of the Parties, but otherwise shall be interpreted according to the application of the rules on interpretation of contracts.

18. **Waiver.** Failure to insist on compliance with any term, covenant or condition contained in this Agreement and Release shall not be deemed a waiver of that term, covenant or condition, nor shall any waiver or relinquishment of any right or power contained in this Agreement and Release at any one time or more times be deemed a waiver or relinquishment of any right or power at any other time or times.

19. **Governing Law and Venue.** This Agreement and Release is made and entered into in the State of California, and shall in all respects be interpreted, enforced and governed under the laws of said State without giving effect to conflicts of laws principles. Venue for any action to enforce this Agreement and Release shall be in the Orange County Superior Court, notwithstanding the provisions of Code of Civil Procedure section 394.

20. **Notices.** All notices and other communications provided or permitted hereunder shall be made personal delivery or pre-paid first class mail, as follows:

If to Newport Beach:

City of Newport Beach
Attention: City Manager
3300 Newport Boulevard
Post Office Box 1768
Newport Beach, CA 92658-8915

with a copy to:

City of Newport Beach
Office of the City Attorney
3300 Newport Boulevard
Post Office Box 1768
Newport Beach, CA 92658-8915

If to Irvine: City of Irvine
Attention: City Manager
One Civic Center Plaza
Post Office Box 19575
Irvine, CA 92623-9575

With a copy to: Rutan & Tucker, LLP
Attention: City Attorney, City of Irvine
611 Anton Boulevard, Suite 1400
Costa Mesa, CA 92626

All such notices and communications shall be deemed to have been given when delivered, if personally delivered; and two business days after being deposited in the United States mail, postage prepaid.

21. **Entire Agreement.** This Agreement and Release constitutes the entire agreement between the Parties who have executed it and supersedes any and all other agreements, understandings, negotiations, or discussions, either oral or in writing, express or implied, between the Parties to this Agreement and Release. The Parties to this Agreement and Release each acknowledge that no representations, inducements, promises, agreements or warranties, oral or otherwise, have been made by them, or anyone acting on their behalf, which are not embodied in this Agreement and Release, that they have not executed this Agreement and Release in reliance on any such representation, inducement, promise, agreement or warranty, and that no representation, inducement, promise, agreement or warranty not contained in this Agreement and Release including, but not limited to, any purported supplements, modifications, waivers or terminations of this Agreement and Release shall be valid or binding, unless executed in writing by all of the Parties to this Agreement and Release.

22. **Further Assurances; Mutual Cooperation.** The Parties shall perform such further acts, including execution of documents, as are necessary to effectuate the intent of this Agreement and Release. The Parties shall cooperate to ensure that the steps necessary to implement this Agreement and Release are carried out.

23. **No Third Party Beneficiaries.** The Parties recognize and agree that the real parties in interest in the Actions will receive benefits incidental to this Agreement and Release, including but not limited to the vacation of Superior Court orders concerning the issuance of land use entitlement approvals and the award of attorneys' fees. The Parties intend and agree that no third parties, including such real parties in interest, shall have any rights to enforce any provision of or any obligation created by this Agreement and Release.

24. **Representation of Authority to Execute.** Each of the persons executing this Agreement and Release represents and warrants that he or she is duly and fully authorized and empowered to execute this Agreement and Release on behalf of and to bind the Party so indicated below.

IN WITNESS WHEREOF, the undersigned have executed this Settlement Agreement and Mutual Release of Claims on the dates set forth below.

CITY OF NEWPORT BEACH

By: _____

Edward D. Selich, Mayor

Dated: November 24, 2009

CITY OF IRVINE

By: _____

Sukhee Kang, Mayor

Dated: November 24, 2009

Attest: _____

Leilani I. Brown, City Clerk

Attest: _____

Sharie Apodaca, City Clerk

CITY OF NEWPORT BEACH CALIFORNIA

APPROVED AS TO FORM:

By: _____

David R. Hunt
City Attorney, City of Newport Beach

By: _____

Philip D. Kohn
City Attorney, City of Irvine

Appendix B: 2010 Settlement Agreement between City of Irvine and City of Tustin

SETTLEMENT AGREEMENT AND MUTUAL RELEASE OF CLAIMS

This Settlement Agreement and Mutual Release of Claims ("Agreement and Release") is made and entered into as of July 13, 2010 (the "Effective Date") by and between the CITY OF TUSTIN ("Newport Beach"), a California municipal corporation, and the CITY OF IRVINE ("Irvine"), a California municipal corporation. Tustin and Irvine are sometimes referred to in this Agreement and Release individually as a "Party" and collectively as the "Parties."

Recitals

A. Tustin is a petitioner and plaintiff in the below-described legal actions commenced and pending against Irvine, which are sometimes referred to collectively as the "Actions."

1. On April 26, 2007, Tustin and the City of Newport Beach "Newport Beach") filed an action in the Orange County Superior Court entitled *City of Newport Beach and City of Tustin v. City of Irvine, et al. (Starpointe Ventures and West Millennium Homes)*, bearing Case No. 07CC01264. This action challenges Irvine's approval of the 82-unit Martin Street condominium project, situated within the Irvine Business Complex ("IBC"), and Irvine's certification of an environmental impact report in connection with the project approval. The trial court entered judgment in favor of Tustin and Newport Beach and against Irvine, and subsequently awarded attorneys' fees in favor of Tustin and Newport Beach and against Irvine. Irvine has appealed the judgment and the award of attorneys' fees (Court of Appeal Case Nos. G040749 and G041113).

2. On April 26, 2007, Tustin and Newport Beach filed an action in the Orange County Superior Court entitled *City of Newport Beach and City of Tustin v. City of Irvine, et al. (Starpointe Ventures, Avalonbay Communities, Inc. and Alton Associates)*, bearing Case No. 07CC01265. This action challenges Irvine's approval of the 170-unit 2851 Alton condominium project, situated within the IBC, and Irvine's certification of an environmental impact report in connection with the project approval. The trial court entered judgment in favor of Tustin and Newport Beach and against Irvine, and subsequently awarded attorneys' fees in favor of Tustin and Newport Beach and against Irvine. Irvine has appealed the judgment and the award of attorneys' fees (Court of Appeal Case Nos. G040757 and G041107). Real party in interest Alton Associates has also appealed the judgment (Court of Appeal Case No. G040759) ("Alton Associates Appeal").

3. On December 12, 2008, Tustin and Newport Beach filed an action in the Orange County Superior Court entitled *City of Newport Beach and City of Tustin v. City of Irvine, et al. (Starpointe Ventures and Hines)*, bearing Case No. 30-2008-00228855-CU-WM-CXC. This action challenges Irvine's approval of a multi-phase project consisting of up to 785,000 square feet of office space and 15,500 square feet of retail/restaurant space, situated within the IBC, and Irvine's certification of an environmental impact report in connection with the project approval. This action is still pending in the Superior Court and no final disposition has occurred.

4. On April 29, 2009, Tustin and Newport Beach filed an action in the Orange County Superior Court entitled *City of Newport Beach and City of Tustin v. City of Irvine, et al.*, bearing Case No. 30-2009-00264696-CU-WM-CXC. This action challenges Irvine's approval of a Zoning Code Technical Update, including a new Accessory Retail Business designation as a permitted use within the IBC, and Irvine's determination that the approval was exempt from review under the California Environmental Quality Act ("CEQA"), codified as Public Resources Code section 21000 *et seq*. This action is still pending in the Superior Court and no final disposition has occurred.

B. The Parties mutually desire to enter into this Agreement and Release to achieve a full and complete resolution of all claims arising from or relating to the disputes between them concerning the Actions and the subject matters raised and implicated by the Actions.

NOW, THEREFORE, in consideration of the facts recited above, and the covenants, conditions and promises set forth below, the Parties agree as follows:

Agreement and Release

1. **Reeitals Iueorporated.** The Foregoing Recitals are incorporated herein and made a part of this Agreement and Release.

2. **Dismissal of Trial Court Aetious.** Within ten (10) business days of the Effective Date of this Agreement and Release, Tustin shall personally deliver to Irvine's counsel properly completed and executed Requests for Dismissal with prejudice of the entire action as to Tustin only for the Actions entitled *City of Newport Beach and City of Tustin v. City of Irvine, et al. (Starpointe Ventures and Hines)*, bearing Case No. 30-2008-00228855-CU-WM-CXC, and *City of Newport Beach and City of Tustin v. City of Irvine, et al.*, bearing Case No. 30-2009-00264696-CU-WM-CXC, as further described in paragraphs A.3 and A.4 above. The Parties acknowledge that Newport Beach previously filed Requests for Dismissal of the subject actions as to Newport Beach only, which dismissals were entered, and that the dismissals as to Tustin will result in dismissal of the subject actions in their entirety.

3. **Dismissal of Court of Appeal Aetious.**

A. Irvine Appeals. Within five (5) business days of the Effective Date of this Agreement and Release, Tustin and Irvine shall file a Stipulated Request for Dismissal of the appeals as to Tustin only for the Actions entitled *City of Newport Beach and City of Tustin v. City of Irvine, et al. (Starpointe Ventures and West Millennium Homes)* and *City of Newport Beach and City of Tustin v. City of Irvine, et al. (Starpointe Ventures, Avalonbay Communities, Inc. and Alton Associates)*, as further described in paragraphs A.1 and A.2 above. Each Stipulated Request for Dismissal shall provide that upon remand of such portion of the Action to the Superior Court following issuance of a remittitur, Tustin and Irvine will file a stipulation for the vacation of the judgments and orders that are the subject of the appeal and for the dismissal with prejudice of the entire action as to Tustin only. Such stipulation shall also include an agreement that Tustin and Irvine shall each bear its own attorneys' fees and costs. The Parties acknowledge that Newport Beach and Irvine previously filed such a Stipulated Request for Dismissal of the appeals as to Newport Beach only and upon remittitur filed a stipulation for the

vacation of the judgments and orders that were the subject of the appeal and for the dismissal with prejudice of the entire action as to Newport Beach, which dismissals were entered, and that the dismissals as to Tustin contemplated by this paragraph 3.A will result in dismissal of the subject actions in their entirety.

B. Alton Associates Appeal. If Alton Associates agrees, within five (5) business days of the Effective Date of this Agreement and Release, or as soon thereafter as reasonably practicable, Tustin, Alton Associates and Irvine shall file a Stipulated Request for Dismissal of the appeal as to Tustin only for the Alton Associates Appeal. The Stipulated Request for Dismissal shall provide that upon remand of such portion of the Alton Associates Appeal to the Superior Court following issuance of a remittitur, Tustin, Alton Associates and Irvine will file a stipulation for the vacation of the judgment and orders that are the subject of the Alton Associates Appeal and for the dismissal with prejudice of the entire action as to Tustin only. Alton Associates must agree to bear its own attorneys' fees and costs in the action and the appeal. This Agreement and Release is conditioned upon the agreement of Alton Associates to take the action reflected in this paragraph. If Alton Associates does not agree to take this action, this Agreement and Release is void and without force or effect. The Parties acknowledge that Newport Beach, Alton Associates and Irvine previously filed such a Stipulated Request for Dismissal of the appeal as to Newport Beach only and upon remittitur filed a stipulation for the vacation of the judgment and orders that were the subject of the appeal and for the dismissal with prejudice of the entire action as to Newport Beach, which dismissal were entered, and that the dismissal as to Tustin contemplated by this paragraph 3.B will result in dismissal of the subject action in its entirety.

C. Forbearance. In addition to the obligations set forth above in this paragraph, Tustin shall not take or cause to be taken any actions to enforce or facilitate the enforcement of the judgments and orders issued in any of the Actions.

4. **Agreement Not To Bring Further Challenges; Agreement to Cooperate.** The Parties, and each of them, shall not initiate, join, participate in, provide funding to or assist any third party in the initiation or participation in, any legal or administrative action or proceeding challenging any of the following:

A. The approval of land use and development entitlements (including but not limited to tentative and final subdivision maps, conditional use permits, lot line adjustments, and grading and building plans, permits, community facilities district and/or assessment district proceedings, including any necessary subsequent environmental documentation for any and all implementation actions) for any development project in the other Party's city, so long as the project substantially conforms to the Average Daily Trip (ADTs) development maximum thresholds in each other Party's current respective General Plan, zoning documents and other applicable planning documents, inclusive of the MCAS Tustin Specific Plan (approved on or about February 3, 2003), any previously adopted amendments and any current formally submitted proposed amendments to Tustin's General Plan, or is exempt from environmental review under state law, and the currently forecast development in Irvine's draft IBC Vision Plan, and inclusive of ADTs for maximum development identified in the applicable planning documents. While not restricting Irvine's discretion to adopt a final IBC Vision Plan, the agreement by Tustin to not challenge the IBC Vision Plan as set out on this paragraph 4 is

conditioned upon Irvine's adoption of the IBC Vision Plan alternative as provided in Section 4.B below.

B. The final approval of Irvine's IBC Vision Plan (including but not limited to the substance, merits, nature, scope, methodology, assumptions, analyses or conclusions) so long as such final plan substantially conforms to Irvine's draft IBC Vision Plan. In this regard, the Parties acknowledge and agree that the draft IBC Vision Plan may be modified as necessary to reflect the land use changes generally described in Exhibit A to that certain Settlement Agreement and Mutual Release between Allergan, Inc. and Irvine and the City Council of the City of Irvine, dated on or about August 18, 2009 ("Allergan Settlement Agreement"), a copy of which is appended as Exhibit "1" to this Agreement and Release and is hereby incorporated by this reference, and further acknowledge and agree that such land use changes are generally consistent with Irvine's draft IBC Vision Plan. While not restricting Irvine's discretion to adopt a final IBC Vision Plan, the agreement by Tustin to not challenge the IBC Vision Plan as set out on this paragraph 4 is conditioned upon Irvine's modification of the IBC Vision Plan in a manner consistent with the Allegan Settlement Agreement.

C. The certified Final Environmental Information Statement/Environmental Impact Report for the Tustin Legacy project, including without limitation the incorporated Supplemental Environmental Information Statement/Environmental Impact report for the Tustin Ranch Road project and the Addendum for Zone Change (Specific Plan Amendment) 05-022 and the Master Developer Disposition and Development Agreement and Development Plan (approved on or about June 5, 2007), together with a possible Addendum to the Final EIS/EIR for the Tustin Legacy project for modification or deletion of transportation/circulation projects and mitigation measures (collectively, "the Final EIS/EIR for Tustin Legacy") in order to implement the terms of this Agreement.

D. Adjustments to the IBC Transportation Development Fee Program or the Tustin Legacy Backbone Infrastructure Program, provided that such adjustments are not in conflict or inconsistent with the provisions of or any obligations under this Agreement and Release.

E. Approval or implementation of any transit and/or transportation improvements supporting development activities in the IBC substantially conforming to the IBC Vision Plan or for the Tustin Legacy project.

F. Any determination under CEQA with respect to any of the foregoing.

The Parties, and each of them, further agree to cooperate in timely seeking and providing comments, both verbal and in writing, to each other on any proposed changes in their respective planning documents prior to any such change being presented to the respective decision-making body.

5. **Prior Agreement Regarding Red Hill Avenue Improvements.** On or about November 16, 1992, Tustin and Irvine entered into that certain Agreement Regarding Implementation, Timing and Funding of Transportation/Circulation Mitigation for the Irvine Business Complex Project ("1992 Agreement"). Tustin and Irvine agree that Irvine hereafter

shall not have, and shall be relieved of and discharged from, any responsibilities or obligations to perform under or pursuant to the 1992 Agreement, and that all of the terms and provisions of the 1992 Agreement shall be and are terminated in their entirety and of no further force or effect. The parties acknowledge and agree that the construction of the Red Hill Avenue Improvements as provided in the 1992 Agreement are unnecessary and not required by the IBC Vision Plan as a mitigation measure.

6. **Prior Agreement Regarding Tustin Legaey Mitigation Measures.** On or about February 22, 2001, Tustin and Irvine entered into that certain Agreement Between the City of Irvine and the City of Tustin Regarding the Implementation, Timing and Funding of Transportation/Circulation Mitigation for the MCAS Tustin Project ("2001 Agreement"). Tustin hereafter shall not have, and shall be relieved of and discharged from, any responsibilities or obligations to perform under or pursuant to the 2001 Agreement, and that all of the terms and provisions of the 2001 Agreement shall be and are terminated in their entirety and of no further force or effect, and no additional mitigation requirements are required within the City of Irvine under the Tustin adopted Final EIS/EIR for the Tustin Legacy project. In 2005, Tustin, Irvine and Lennar Homes of California, Inc. entered into a Joint Community Facilities Agreement as it related to the use by Tustin of net bond proceeds generated by Irvine Community Facilities District 2005-02 (Columbus Grove) for certain of the mitigation measures required in the 2001 Agreement ("2005 Agreement"). Tustin and Irvine agree that Irvine shall be entitled to accept and use the remaining estimated balance of $1.9 million in the Tustin Account (as defined in the 2005 Agreement) in such manner and for such purposes authorized under CFD 2005-02, as Irvine determines in its sole and absolute discretion.

7. **Payment for Tnstin Raneh Road Improvements.** In lieu of Irvine's fair share of the estimated costs of those traffic and transportation improvements located within Tustin identified as mitigation measures in and arising from the IBC Vision Plan, Irvine shall contribute 12% of the construction contract award amount or $4.5 million, whichever is greater, up to a maximum of $6.5 million, for the Tustin Ranch Road Extension roadway improvements from Walnut Avenue to Warner Avenue, including the grade separation and loop at Edinger Avenue. Irvine shall pay this sum to Tustin within twenty (20) business days of the date Tustin awards a construction contract for all segments of the project. In the event that Tustin has not awarded such a construction contract by July 1, 2015, Tustin may use Irvine's contribution to jointly fund such interim improvements for Tustin Ranch Road from Walnut Avenue to Warner Avenue as are mutually agreeable and beneficial to both cities. Irvine's contribution obligation will expire, and Tustin shall reimburse Irvine any contribution made, in the event that Tustin Ranch Road between Walnut Avenue and Warner Avenue is not fully constructed and open to traffic by July 1, 2025. The Parties acknowledge and agree that Irvine's agreement to contribute funds as set forth above shall and does constitute Irvine's fair share obligation toward traffic and transportation improvements within the City of Tustin arising from or related to development in the IBC contemplated by and in substantial conformance to the IBC Vision Plan. Further, Tustin and Irvine agree to cooperatively advocate any applications for regional, state, or federal funding for the Tustin Ranch Road Extension roadway improvements.

8. **Release of Claims.**

A. Each Party, including its mayors, councilmembers, officers, employees, agents, assigns and attorneys, hereby releases and forever discharges the other Party, including its mayors, councilmembers, officers, employees, agents, assigns and attorneys, from any and all claims, demands, causes of action, obligations, damages, injuries, attorneys' fees, costs, and liabilities of any nature whatsoever, whether or not now known, suspected or claimed, which the Party ever had, now has or may claim to have against the other Party (whether directly or indirectly), by reason of any act or omission concerning any matter, event, incident, encounter, cause, or thing relating to or arising out of the events that underlie and are the subject of the Actions, and any claims asserted or which could be or could have been asserted in the Actions.

B. Each Party acknowledges that it may later discover facts different from or in addition to those it now knows or believes to be true with respect to the claims, demands, causes of action, obligations, damages, and liabilities of any nature whatsoever that are the subject of the releases set forth in this Agreement and Release. The Parties expressly agree to assume the risk of the possible discovery of additional or different facts, and agree that this Agreement and Release shall be and remain effective in all respects regardless of such additional or different facts.

C. The releases set forth above are general releases of all claims, demands, causes of action, obligations, damages, and liabilities of any nature whatsoever that are described in those releases and are intended to encompass all known and unknown, foreseen and unforeseen claims that Tustin and Irvine may have against each other relating to or arising out of the events that underlie and are the subject of the Actions, except for any claims that may arise from the terms of this Agreement and Release.

D. By releasing and forever discharging claims both known and unknown as hereinabove provided, the Parties, and each of them, expressly waive and relinquish all rights and benefits they may have under section 1542 of the Civil Code of the State of California, which reads as follows:

> "[General Release -- Claims Extinguished.] A general release does not extend to claims which the creditor does not know or suspect to exist in his favor at the time of executing the release, which if known by him must have materially affected his settlement with the debtor."

9. **Responsibility for Attorneys' Fees, Costs and Litigation Expenses.** Tustin and Irvine each shall be wholly responsible for the payment of their respective attorneys' fees, cost and litigation expenses incurred in the Actions.

10. **No Other Pending Aetions.** The Parties each warrant and represent that they have not filed any complaints or claims (other than the Actions referenced above) against each other with any local, state or federal agency or court, and that they will not do so at any time hereafter with respect to the event that underlie and are the subject of the Actions, the claims that

were asserted or that could be or could have been asserted in the Actions, or any claims arising out of the Actions.

11. **No Assignment of Claims.** The Parties each warrant and represent that they have made no assignment, and will make no assignment, of any claim, cause of action, right of action or any right of any kind whatsoever, embodied in any of the claims and allegations referred to herein, and that no other person or entity of any kind had or has any interest in any of the demands, obligations, actions, causes of action, debts liabilities, rights, contracts, damages, attorneys' fees, costs, expenses, losses or claims referred to herein. Each Party hereby agrees to indemnify, defend and hold harmless the other Party as against any claim based on or arising out of any assignment, transfer or sale in violation of the foregoing warranty.

12. **Non-Admission of Liability.** The Parties acknowledge and agree that this Agreement and Release is a settlement of disputed claims. Neither the fact that the Parties have settled nor the terms of this Agreement and Release shall be construed in any manner as an admission of any liability by Irvine or any affiliated person or entity, all of whom consistently have taken the position that they have no liability whatsoever to Newport Beach.

13. **Successors and Assigns.** This Agreement and Release, and all of the terms and provisions hereof, shall be binding upon and shall inure to the benefit of the Parties and their respective successors, assigns and legal representatives.

14. **Knowing and Voluntary.** The Parties each specifically represent that prior to signing this Agreement and Release, they have been provided a reasonable period of time within which to consider whether to accept this Agreement and Release. The Parties each represent that they have each carefully read and fully understand all of the provisions of this Agreement, and that they are voluntarily, knowingly, and without coercion entering into this Agreement and Release based upon their own judgment.

15. **Assistance of Counsel.** The Parties each specifically represent that they have consulted to their satisfaction with and received independent advicc from their respective counsel prior to executing this Agreement and Release concerning the terms and conditions of this Agreement and Release.

16. **Euforcemcnt Costs.** Should any legal action be required to enforce the terms of this Agreement and Release, the prevailing Party shall be entitled to reasonable attorneys' fees and costs in addition to any other relief to which that Party may be entitled.

17. **Severability.** Should any portion, word, clause, phrase, sentence or paragraph of this Agreement and Release be declared void or unenforceable, such portion shall be considered independent and severable from the remainder, the validity of which shall remain unaffected.

18. **Coustructiou.** The Parties acknowledge that this Agreement and Release was jointly prepared by them, by and through their respective legal counsel, and any uncertainty or ambiguity existing herein shall not be interpreted against any of the Parties, but otherwise shall be interpreted according to the application of the rules on interpretation of contracts.

19. **Waiver.** Failure to insist on compliance with any term, covenant or condition contained in this Agreement and Release shall not be deemed a waiver of that term, covenant or condition, nor shall any waiver or relinquishment of any right or power contained in this Agreement and Release at any one time or more times be deemed a waiver or relinquishment of any right or power at any other time or times.

20. **Governing Law and Venne.** This Agreement and Release is made and entered into in the State of California, and shall in all respects be interpreted, enforced and governed under the laws of said State without giving effect to conflicts of laws principles. Venue for any action to enforce this Agreement and Release shall be in the Orange County Superior Court, notwithstanding the provisions of Code of Civil Procedure section 394.

21. **Notiees.** All notices and other communications provided or permitted hereunder shall be made personal delivery or pre-paid first class mail, as follows:

If to Tustin:
City of Tustin
Attention: City Manager
300 Centennial Way
Tustin, CA 92780

with a copy to:
Woodruff, Spradlin & Smart
Attention: City Attorney, City of Tustin
555 Anton Boulevard, Suite 1200
Costa Mesa, CA 92626

If to Irvine:
City of Irvine
Attention: City Manager
One Civic Center Plaza
Post Office Box 19575
Irvine, CA 92623-9575

With a copy to:
Rutan & Tucker, LLP
Attention: City Attorney, City of Irvine
611 Anton Boulevard, Suite 1400
Costa Mesa, CA 92626

All such notices and communications shall be deemed to have been given when delivered, if personally delivered; and two business days after being deposited in the United States mail, postage prepaid.

22. **Entire Agreement.** This Agreement and Release constitutes the entire agreement between the Parties who have executed it and supersedes any and all other agreements, understandings, negotiations, or discussions, either oral or in writing, express or implied, between the Parties to this Agreement and Release. The Parties to this Agreement and Release each acknowledge that no representations, inducements, promises, agreements or warranties, oral or otherwise, have been made by them, or anyone acting on their behalf, which are not embodied in this Agreement and Release, that they have not executed this Agreement and Release in

reliance on any such representation, inducement, promise, agreement or warranty, and that no representation, inducement, promise, agreement or warranty not contained in this Agreement and Release including, but not limited to, any purported supplements, modifications, waivers or terminations of this Agreement and Release shall be valid or binding, unless executed in writing by all of the Parties to this Agreement and Release.

23. **Further Assuranees; Mutual Cooperation.** The Parties shall perform such further acts, including execution of documents, as are necessary to effectuate the intent of this Agreement and Release. The Parties shall cooperate to ensure that the steps necessary to implement this Agreement and Release are carried out.

24. **No Third Party Benefieiaries.** The Parties recognize and agree that the real parties in interest in the Actions will receive benefits incidental to this Agreement and Release, including but not lirnited to the vacation of Superior Court orders concerning the issuance of land use entitlement approvals and the award of attorneys' fees. The Parties intend and agree that no third parties, including such real parties in interest, shall have any rights to enforce any provision of or any obligation created by this Agreement and Release.

25. **Representation of Authority to Exeeute.** Each of the persons executing this Agreement and Release represents and warrants that he or she is duly and fully authorized and empowered to execute this Agreement and Release on behalf of and to bind the Party so indicated below.

IN WITNESS WHEREOF, the undersigned have executed this Settlement Agreement and Mutual Release of Claims on the dates set forth below.

CITY OF TUSTIN

By: _____

Jerry Amante, Mayor

Dated: July 12, 2010

Attest: _____

Pamela Stoker, City Clerk

APPROVED AS TO FORM:

By: _____

Douglas C. Holland
City Attorney, City of Tustin

CITY OF IRVINE

By: _____

Sukhee Kang, Mayor

Dated: July ___, 2010

Attest: _____

Sharie Apodaca, City Clerk

By: _____

Philip D. Kohn
City Attorney, City of Irvine

reliance on any such representation, inducement, promise, agreement or warranty, and that no representation, inducement, promise, agreement or warranty not contained in this Agreement and Release including, but not limited to, any purported supplements, modifications, waivers or terminations of this Agreement and Release shall be valid or binding, unless executed in writing by all of the Parties to this Agreement and Release.

23. **Further Assurances; Mutual Cooperation.** The Parties shall perform such further acts, including execution of documents, as are necessary to effectuate the intent of this Agreement and Release. The Parties shall cooperate to ensure that the steps necessary to implement this Agreement and Release are carried out.

24. **No Third Party Benefieiaries.** The Parties recognize and agree that the real parties in interest in the Actions will receive benefits incidental to this Agreement and Release, including but not limited to the vacation of Superior Court orders concerning the issuance of land use entitlement approvals and the award of attorneys' fees. The Parties intend and agree that no third parties, including such real parties in interest, shall have any rights to enforce any provision of or any obligation created by this Agreement and Release.

25. **Representation of Authority to Exeeute.** Each of the persons executing this Agreement and Release represents and warrants that he or she is duly and fully authorized and empowered to execute this Agreement and Release on behalf of and to bind the Party so indicated below.

IN WITNESS WHEREOF, the undersigned have executed this Settlement Agreement and Mutual Release of Claims on the dates set forth below.

CITY OF TUSTIN

By:_____

Jerry Amante, Mayor

Dated: July ___, 2010

Attest:_____

Pamela Stoker, City Clerk

APPROVED AS TO FORM:

By:_____

Douglas C. Holland
City Attorney, City of Tustin

CITY OF IRVINE

By:_____

Sukhee Kang, Mayor

Dated: July 12, 2010

Attest:_____

Sharie Apodaca, City Clerk

By:_____

Philip D. Kohn
City Attorney, City of Irvine

Appendix C: 1992 Agreement and Subsequent Amendment between City of Irvine and City of Santa Ana

AMENDMENT TO AND RESTATEMENT OF THE 1992 AGREEMENT BETWEEN THE CITIES OF SANTA ANA AND IRVINE

THIS AGREEMENT ("Agreement") entered into and shall be effective on this 21st day of MARCH, 2011 by and between the City of Santa Ana, hereinafter referred to as "Santa Ana," and the City of Irvine, hereinafter referred to as "Irvine." Santa Ana and Irvine are collectively referred to as the "Parties." This AGREEMENT replaces and supersedes in its entirety that certain agreement dated November 24, 1992 by and between the Parties titled "Implementation of Roadway and Interchange Mitigation Program for EIR 88-ZC-0087" ("1992 Agreement."). A true and correct copy of the 1992 Agreement is attached hereto as Exhibit "A."

RECITALS

A. WHEREAS, on July 13, 2010 Irvine certified an Environmental Impact Report for certain General Plan Amendments and Zone Changes that are collectively known as the "IBC Vision Plan." That same evening, Irvine approved the General Plan Amendment for the IBC Vision Plan, and conducted a first reading for the Zone Change for the IBC Vision Plan. On July 27, 2010, Irvine conducted a second reading for the Zone Change for the IBC Vision Plan. The IBC Vision Plan is hereinafter referred to as the "Project." The Project is generally bounded by the former Tustin Marine Corps Air Station (MCAS) to the north, the San Diego Creek channel to the east, John Wayne Airport and Campus Drive to the south and State Route 55 (SR-55) to the west. The Project is bordered by the cities of Newport Beach, Santa Ana, Costa Mesa and Tustin. The Project includes and/or contemplates (*i*) an increase in total units in the Irvine Business Complex ("IBC") from 9,401 units to 15,000 units, and (ii) a reduction of 2,715,062 square feet of nonresidential development (measured in office equivalency). In addition, a total of 1,191 density bonus units could be allowed (and are therefore assumed as part of the Project) in accordance with state law, resulting in a total of 16,191 units; and

B. WHEREAS, a Traffic Impact Study (TIS) has been prepared for the Project that identifies Project-related impacts and corresponding pro-rata funding fair-shares for the following intersections and roadway segment in Santa Ana:

- Bristol Street at Segerstrom Intersection – 12.7%
- Main Street at Dyer Road Intersection – 21%
- Grand Avenue at Warner Avenue Intersection – 15.8%
- MacArthur Boulevard widening from Main Street to SR55 – 31.1%

Each intersection and roadway segment listed above shall hereinafter be referred to as "Project Impact" and collectively be referred to as "Project Impacts," and the corresponding pro-rata funding fair-shares shall hereinafter be referred to as "Improvement Fair Share Contributions"; and

C. WHEREAS, Santa Ana currently has no fee program designed to collect fees for the mitigation of any of the Project Impacts; and

D. WHEREAS, the Project involves the same land area – the IBC – that was the subject of certain Irvine General Plan Amendment and Irvine Zoning Code Amendments project, together with a mitigation fee program and an Environmental Impact Report ("IBC EIR"), for which approvals and certifications were completed by 1992 (collectively, the "1992 Entitlements"); and

E. WHEREAS, in connection with the 1992 Entitlements, the Parties entered into the 1992 Agreement, which outlines the Parties' roles and responsibilities in implementing certain transportation improvements identified in the 1992 Entitlements; and

F. WHEREAS, the 1992 Agreement may be amended upon the mutual consent of both Parties; and

G. WHEREAS, this Agreement is intended to, and does, restate in full and supersede the 1992 Agreement.

NOW THEREFORE, for good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, the parties hereby amend and restate in full the 1992 Agreement in full as follows:

1 Limit on new development in the IBC The parties hereto agree that Irvine will not issue building permits for development in the IBC which would cause the total development in the IBC (existing development plus development occurring after the date of this Agreement) to exceed 51,000,000 square feet of office equivalency development (as defined in the Irvine Zoning Code) until after the following street improvements, located in the City of Santa Ana, have been completed:

(a) The widening of Dyer Road to eight (8) lanes from a point commencing just east of the SR-55 freeway northbound direct connector on-ramp to and including the Redhill - Dyer/Barranca Avenue intersection, as provided in the IBC EIR mitigation measures, hereinafter referred to as the "Roadway Improvement".

(b) An Alton Avenue overcrossing of the SR-55 Freeway, hereinafter referred to as the "Overcrossing Improvement".

If, notwithstanding Irvine's agreement to limit the issuance of building permits as set forth hereinabove, the total development in the IBC exceeds 51,000,000 square feet prior to the completion of the Roadway Improvement and Overcrossing Improvement;

A. Irvine shall pay to Santa Ana Irvine's share of the Total Costs (as defined in Section 2 herein below) of the Overcrossing Improvement, to the extent such Total Cost remain unpaid. Any amounts received by Santa Ana pursuant to this paragraph shall be expended by Santa Ana in accordance with Section 3 herein below. As of the date of this agreement, Irvine has issued building permits in the IBC for 41,671,636 square feet of office equivalency development.

B. Irvine shall deposit the Total Costs (as defined in Section 2 herein below)

of the Roadway Improvement, to the extent such Total Costs remain outstanding, in an interest bearing account in a financial institution acceptable to both Irvine and Santa Ana. Irvine shall not withdraw any of the principal of such amount except in connection with the design and construction of the Roadway Improvement, including but not limited to alignment studies, necessary environmental documentation, land acquisition costs, costs of design and construction, and administrative staff costs related to the Roadway Improvements.

2. Responsibilities of the Parties

A. "Total Costs" defined. The term "Total Costs" means all costs incurred in the design and construction of an improvement (i.e., the Roadway Improvement or the Overcrossing Improvement), including, but not limited to, costs of preparation of environmental documentation, costs of land acquisition (including any costs incurred in any eminent domain action), costs of design and construction, and Santa Ana's administrative staff costs, so long as such administrative staff costs related to Roadway Improvement do not exceed 5% of the Total Costs (excluding administrative staff costs) of the improvement ("Improvement Work").

B. To assist in minimizing Total Costs of Roadway Improvement, Santa Ana shall consider and process for approval a reduction of otherwise required landscape setbacks during the right of way acquisition phase of the project if, absent such reduction, the taking of buildings would be necessary to construct the Roadway Improvement. Irvine will mitigate parking losses incurred by any parcels affected by partial acquisitions by the addition of onsite parking spaces through reconfiguration of the site, or by acquisition and development of adjacent real estate for parking. All parking mitigation plans will be subject to the approval of Santa Ana.

C. "Lead Agency" defined. As used herein, the term "Lead Agency" means the city (Irvine or Santa Ana) which is responsible for undertaking the

Improvement Work, either through its own employees or through independent contractors, except as otherwise provided herein below.

D. Funding responsibilities. Irvine shall be responsible for 100% the Total Cost of the Roadway Improvement, less any portion the Total Costs of the Roadway Improvement for which any entity other than Santa Ana assumes responsibility. Irvine will support City of Santa Ana's effort in obtaining local, state and federal grants for the Overcrossing Improvement. Irvine and Santa Ana shall each be responsible for 50% of the Total Costs of the Overcrossing Improvement; provided, however, that if any entity(ies) and/or grant funds other than Irvine or Santa Ana contribute(s) to the Total Costs of the Overcrossing Improvement ("Third Party Contribution(s)"), Irvine's and Santa Ana's contribution shall each be reduced in an amount equal to 50% of said Third Party Contribution(s). Nothing herein shall be construed to restrict the ability of Irvine and/or Santa Ana to obtain funds to meet their funding responsibilities hereunder through the imposition of development fees or such other revenue measures (collectively "Development Fees") as may be deemed appropriate by Irvine and/or Santa Ana, and said Development Fees shall not be deemed to be Third Party Contributions.

Irvine shall have no responsibility to contribute in any way to the mitigation of the Project Impacts (as defined in Recital B above), whether through the payment of the Improvement Fair Share Contribution (as defined in Recital B above) or otherwise. Responsibility for mitigation of the Project Impacts shall belong to Santa Ana or such other entities (other than Irvine) as may assume responsibility to mitigate the Project Impacts.

E. Lead Agency Responsibilities. Except as otherwise provided in Section 3 of this Agreement,
Irvine shall be the Lead Agency for the Roadway Improvement, provided, however, that to the extent that Irvine is unable to acquire land necessary for the Roadway Improvement due to Irvine's inability to apply its powers

of eminent domain to properties located within Santa Ana, Santa Ana shall assume Lead Agency responsibilities with respect to such land acquisition. All design plans and environmental documentation for the Roadway Improvement that is prepared by or on behalf of Irvine as Lead Agency shall be subject to approval by Santa Ana, which approval shall not be unreasonably withheld or delayed; provided, however, that Santa Ana may require all design plans to conform to Santa Ana design standards in effect at the time such plans are submitted.
Santa Ana shall be the Lead Agency with regard to the Overcrossing Improvement. All alignment and design plans and environmental documentation for the Overcrossing Improvement that are prepared by or on behalf of Santa as Lead Agency shall be subject to approval by Irvine, which approval shall not be unreasonably withheld or delayed.

Santa Ana shall indemnify, defend and hold Irvine, its City Council members, officers, officials, employees, agents and representatives harmless from and against any and all actions, claims, demands, judgments, attorneys fees, costs, damage to persons or property, penalties, obligations, expenses or liabilities that may be asserted or claimed by any person or entity arising out of the negligent acts or omissions of Santa Ana in connection with the design, construction or maintenance of the Roadway Improvement or Overcrossing Improvement.

Irvine shall indemnify, defend and hold Santa Ana, its City Council members, officers, officials, employees, agents and representatives harmless from and against any and all actions, claims, demands, judgments, attorneys fees, costs, damage to persons or property, penalties, obligations, expenses or liabilities that may be asserted or claimed by any person or entity arising out of the negligent acts or omissions of Irvine in connection with the design, construction or maintenance of the Roadway Improvement or Overcrossing Improvement; provided, however, that upon completion of the Roadway Improvement, and upon satisfactory completion of inspection by appropriate personnel

for the City of Santa Ana, Irvine shall dedicate or convey the Roadway Improvement in its entirety to Santa Ana (to the extent necessary), and shall thereafter have no further liability or responsibility to Santa Ana in connection with the Improvement Work on the Roadway Improvement. However, Irvine shall cooperate with Santa Ana in the prosecution of any required construction defect claims in regard to the Roadway Improvements.

F. Payment of costs. Irvine shall reimburse Santa Ana for any portion of the Total Costs of the Roadway Improvement incurred by Santa Ana if Santa Ana acts as Lead Agency, subject to the restrictions and limitations contained in this Agreement, as follows:

> Santa Ana shall invoice Irvine not more than once monthly for costs incurred since the previous invoice. Each invoice shall be accompanied by a detailed statement of the nature of the costs incurred. Each proper invoice shall be paid by Irvine within thirty (30) days of receipt. The parties agree to meet and confer in good faith to resolve any dispute over any invoice or the need and necessity of any costs incurred. With regard to any action in eminent domain undertaken by Santa Ana in the implementation of this Agreement, Santa Ana may require commercially reasonable advance payments from Irvine at such times as Santa Ana determines to be appropriate to discharge its responsibilities in such action. The provisions of this paragraph may be modified by the mutual agreement of the City Managers of Irvine and Santa Ana.

G. Monitoring of Building Permits. Irvine shall monitor the extent of development authorized by the issuance of building permits in the IBC and submit annual reports to Santa Ana. The Annual Report shall indicate the gross square feet of development authorized by building permits issued for development in the IBC.

H. Cooperation. The Parties shall cooperate in the implementation of this Agreement. In particular, Irvine will: (*i*) retain the Overcrossing Improvement and the Roadway Improvement in the County's Master Plan of Arterial Highways (MPAH), (*ii*) support Santa Ana in any application for grant funding for the Overcrossing Improvement, and (*iii*) support Santa Ana in requesting that Orange County Transportation Authority (OCTA) include the Overcrossing Improvement as part of the SR55 freeway widening project. Similarly, Santa Ana will: (*i*) support Irvine in any application for grant funding for the Roadway Improvement.

3. Payment by Irvine to Santa Ana of Irvine's share:

A. Overcrossing Improvement. If Santa Ana does not have available funds necessary to enable it to perform its funding obligation for the Overcrossing Improvement at such time as Irvine is prepared to provide funds for the completion of the Overcrossing Improvements, the City Managers of Irvine and Santa Ana shall defer the construction of the Overcrossing Improvement to a mutually agreeable date, provided, however, in the event that parties can not mutually agree upon a deferred date, Irvine may choose to pay Santa Ana the amount of its obligations for the completion of the Overcrossing Improvement in order to be relieved and would in that event, notwithstanding any other provision of this Agreement, be permitted to issue building permits for development in excess of 51,000,000 square feet in the IBC,

B. Amount of payments. The payment due to Santa Ana from Irvine pursuant to this section shall be the estimated Total Cost of the Overcrossing Improvement as agreed between Irvine and Santa Ana, to the extent of the work that remains to be done, at the time payment is made.

C. Use of funds by Santa Ana. Any funds received by Santa Ana from Irvine pursuant to this section for the Overcrossing Improvement shall be maintained in a separate fund by Santa Ana, which fund shall be used solely for the completion of the Overcrossing Improvement.

4. Amendment of Santa Ana General Plan. Santa Ana shall process a General Plan Amendment, as necessary to accommodate the Roadway Improvement (the "GPA"). The Parties acknowledge that as part of the GPA, Santa Ana may alter its current designations for Dyer Road outside the area of the Roadway Improvement. Irvine shall not object to any portion of the GPA that is consistent with this Paragraph 4. Until Santa Ana amends its General Plan to accommodate the Roadway Improvement, or certifies to Irvine that the Santa Ana General Plan accommodates the Roadway Improvement, Irvine shall have no obligation to fund the Roadway Improvement.

5. Covenant Not to Sue. Each Party, and its respective agents, officers, employees, representatives and assigns hereby agrees and covenants that this Agreement forever satisfies any past, present, or future claims which the Party, and its agents, officers, employees, representatives or assigns had, has or may have against the other Party or its agents, officers, employees, representatives, and assigns arising out of the IBC Vision Plan, the 1992 Entitlements and the 1992 Agreement. Each Party hereto covenants not to file any future legal actions of whatever kind or nature against the other Party regarding any claim in connection with the IBC Vision Plan, the 1992 Entitlements and the 1992 Agreement, whether such claim is known or unknown, suspected or unsuspected, fixed or contingent.

6. Waiver of Civil Code Section 1542. With regard to matters arising from or related to IBC Vision Plan, the 1992 Entitlements and/or the 1992 Agreement, each of the Parties hereto expressly waives any and all rights that they may have under Civil Code section 1542 ("Section 1542") or any Federal or State statutory right, rules or principles of common law or equity or those of any other jurisdiction, government or political subdivision thereof, similar to Section 1542 ("Similar Provision"). Thus, no Party hereto may invoke the benefit of Section 1542 or any Similar Provision in order to prosecute or assert in any manner any claim released hereunder that arises from or relates to the IBC Vision Plan, the 1992 Entitlements and/or the 1992 Agreement. Section 1542 provides that: "a general

release does not extend to claims which the creditor does not know or suspect to exist in his favor at the time of executing the release, which if known by him must have materially effected his settlement with the debtor. "

Santa Ana Initials: BR

Irvine initials: SK

7. Integration. This Agreement represents the entire understanding of the Parties hereto. No prior or contemporaneous oral or written understanding shall be of any force or effect with respect to those matters covered in this Agreement. This Agreement may not be altered, amended, or modified except by mutual consent of the Parties hereto through a written instrument.

8. California Law. This Agreement shall be construed and interpreted both as to its validity and as to the performance of the Parties in accordance with the laws of the State of California.

9. Execution and Counterparts. This Agreement may be executed and delivered in any number of counterparts or copies ("Counterpart") by the Parties hereto.

10. Authority to Execute. Each person executing this Agreement on behalf of a Party hereto warrant that he or she is duly authorized to execute this Agreement on behalf of said Party and that by so executing this Agreement, each Party formally binds itself to the provisions of this Agreement. Each person executing this Agreement further acknowledges that he or she has obtained all necessary and legally required approvals for entry into this Agreement from legislative or governing boards and that such legislative or governing board has adopted a resolution, motion, ordinance or other action pursuant to State law and its own bylaws or ordinances for approval of this Agreement.

11. Notices. Every notice, demand, request, annual report, or other document or instrument delivered pursuant to this Agreement shall be in writing and shall either be personally delivered, sent by Federal Express or other reputable over-night courier, sent by facsimile transmission with the original subsequently

delivered by any other means authorized herein, or sent by certified United States mail, postage prepaid, return receipt requested, to the address set forth below for the applicable Party, or such other address as Parties may designate from time to time:

To the City: City of Irvine
City Hall
One Civic Center Plaza
P.O. Box 19575
Irvine, CA 92713
Attn: City Manager
cc: Director of Community Development
Director of Public Works
Telephone: (714) 724-6000
Fax: (714) 724-6075

To the City: City of Santa Ana
20 Civic Center Plaza
P.O. Box 1988
Santa Ana, CA 92702
Attn: City Manager
cc: Executive Director of Planning and Building
Executive Director of Public Works
Telephone: (714) 647-6900
Fax: (714) 647-6951

12. Severability. The invalidity in whole or in part of any provision of this Agreement shall not void or affect the validity of any other provision of this Agreement.

13. Amendment and Restatement: This Agreement amends and restates, and thereby supersedes in full, the 1992 Agreement.

IN WITNESS WHEREOF, the Parties hereto have executed this Amendment To and Restatement Of the 1992 Agreement as set forth below.

"Irvine"
CITY OF IRVINE

By: _____
Sukhee Kang, Mayor

APPROVED AS TO FORM:

By: _____
Philip D. Kohn
City Attorney

ATTEST:

By: _____
Shari Apodaca
City Clerk of the City of Irvine

"Santa Ana"
CITY OF SANTA ANA

By: _____
David N. Ream, City Manager

APPROVED AS TO FORM:

By: _____
City Attorney

ATTEST:

By: _____
Clerk of the Council, City of Santa Ana

REL: 11/20/92

AGREEMENT

This Agreement for IMPLEMENTING ROADWAY AND INTERCHANGE MITIGATION PROGRAM ("Agreement") is made and entered into as of this 24th day of November, 1992 (the "Effective Date"), by and between the City of Irvine, a California charter city ("Irvine") and the City of Santa Ana, a California municipal corporation ("Santa Ana") (collectively referred to as the "Parties").

RECITALS

A. Irvine has certified Environmental Impact Report 88-ER-0087 (the "IBC EIR"), as adequate and complete and adopted General Plan Amendment No. 7234-GA, and Zoning Amendment 88-ZC-0135 (collectively the "IBC Rezoning") to amend the land use designation and zoning in that portion of the City known as the Irvine Business Complex (the "IBC"), more specifically defined as that area depicted on Exhibit "A," attached hereto and incorporated herein by this reference.

B. The IBC EIR analyzes the IBC Rezoning and concludes that the mitigation measures contained therein will adequately accommodate the traffic impacts which are anticipated to be generated by the IBC Rezoning.

C. Certain mitigation measures discussed in the IBC EIR and adopted as part of the IBC Rezoning are Roadway and Interchange Improvements which are to be constructed within the municipal boundaries of Santa Ana.

EXHIBIT A

2750

NOW, THEREFORE, in consideration of the mutual promises and covenants contained herein, the Parties hereto agree as follows:

1. Limit on new development in the IBC.

The parties hereto agree and stipulate that, as of the date of this Agreement, Irvine has approximately 39,846,000 square feet of development within the IBC. Except as otherwise provided in this Agreement, Irvine agrees that it will not issue building permits for development in the IBC which would cause the total development in the IBC (presently existing development plus development occurring after the date of this Agreement) to exceed 51,000,000 square feet until after the following street improvements, located in the City of Santa Ana, have been completed:

(a) The widening of Dyer Road to eight (8) lanes from a point commencing just east of the SR-55 freeway northbonnd direct connector on-ramp to and including the Redhill-Dyer/Barranca Avenue intersection, as provided in the IBC EIR mitigation measures (numbers 1.a. and 2.p.) (the "Roadway Improvements").

(b) An Alton Avenue overcrossing of the SR-55 freeway with high occupancy vehicle northbound and southbound drop ramps, as provided in the IBC EIR mitigation measures (numbers 1.d and 3.b.) (the "Interchange Improvements").

Irvine further agrees that in the event that, notwithstanding Irvine's agreement to limit the issuance of building permits as abovesaid, the total development in the IBC does exceed 51,000,000 square feet prior to the completion of the Roadway Improvements and

the Interchange Improvements:

(a) Irvine shall be liable to Santa Ana for Irvine's share of the Total Costs (as defined in Section 2 hereinbelow) of the Interchange Improvements, to the extent such Total Costs remain outstanding, and shall pay such amount to Santa Ana. Any amonnts received by Santa Ana pursuant to this paragraph for the Interchange Improvements shall be expended by Santa Ana in accordance with Section 3 hereinbelow.

(b) Irvine shall deposit the Total Costs (as defined in Section 2 hereinbelow) of the Roadway Improvements, to the extent such Total Costs remain outstanding, in an interest bearing account in a financial institution acceptable to both Irvine and Santa Ana. Irvine shall not withdraw any of the principal of such amount except in connection with the design and construction of the Roadway Improvements, including but not limited to alignment studies and any environmental documentation which may be necessary in addition to the IBC EIR, costs of land acquisition (including any costs incurred in any eminent domain action), costs of design and construction, and administrative staff costs related to the Roadway Improvements. Any and all interest earned on the amounts deposited in such account shall be paid to Santa Ana.

Notwithstanding anything to the contrary in the IBC EIR or in the environmental findings approved by Irvine in its approval of

the IBC Rezoning, the parties hereto agree that the completion of the Roadway Improvements and the Interchange Improvements in accordance with this Agreement (and subject to the exceptions set forth in this Agreement) are appropriate and necessary mitigation measures for the IBC Rezoning under the California Environmental Quality Act.

2. Responsibilities of the Parties.

a. "Total Costs" defined. As used with reference to the Roadway Improvements and/or the Interchange Improvements, the term "Total Costs" means all costs incurred in the completion of those improvements, including, but not limited to, costs of preparation of alignment studies and any environmental documentation which may be necessary in addition to the IBC EIR, costs of land acquisition (including any costs incurred in any eminent domain action), costs of design and construction, and administrative staff costs.

b. "Lead Agency" defined. As used herein, the term "Lead Agency" means the city (Irvine or Santa Ana) which is responsible for undertaking the work necessary to complete the Roadway Improvements and/or the Interchange Improvements, including, but not limited to, preparation of alignment studies and any environmental documentation which may be necessary in addition to the IBC EIR, land acquisition, and design and construction, either through its own employees or through independent contractors, except as otherwise provided hereinbelow.

c. Funding responsibilities. Irvine shall be

responsible for 100% of the Total Costs of the Roadway improvements, exclusive of any portion thereof as to which any governmental entity other than Santa Ana may assume responsibility. Irvine and Santa Ana shall each be responsible for 50% of the Total Costs of the Interchange Improvements, exclusive of any portion thereof as to which any governmental entity other than Irvine or Santa Ana may assume responsibility. Nothing herein shall be construed to restrict the ability of either city to obtain funds to meet its funding responsibilities hereunder through the imposition of development fees or such other revenue measures as may be deemed appropriate by that city.

d. Lead Agency responsibilities. Except as otherwise provided in paragraph b of Section 3 of this Agreement, Irvine shall be the Lead Agency for the Roadway Improvements, provided, however, that to the extent that Irvine is unable to acquire land necessary for the Roadway Improvements due to Irvine's inability to exercise powers of eminent domain in the jurisdiction of the City of Santa Ana, Santa Ana shall assume Lead Agency responsibilities with respect to such land acquisition. Santa Ana shall be the Lead Agency with regard to the Interchange Improvements. All alignment and design plans and environmental documentation prepared by or on behalf of Irvine as Lead Agency shall be subject to approval by Santa Ana, which approval shall not be unreasonably withheld or delayed; provided, however, that Santa Ana may require all design plans to conform to Santa Ana design standards in effect at the time such plans are submitted.

Santa Ana shall indemnify, defend and hold Irvine, its councilmembers, officers, officials, employees, agents and representatives harmless from and against any and all actions, claims, demands, judgments, attorneys fees, costs, damage to persons or property, penalties, obligations, expenses or liabilities that may be asserted or claimed by any person or entity arising out of the negligent acts or omissions of Santa Ana in connection with the design, construction or maintenance of the Roadway Improvements or Intersection Improvements.

Irvine shall indemnify, defend and hold Santa Ana, its councilmembers, officers, officials, employees, agents and representatives harmless from and against any and all actions, claims, demands, judgments, attorneys fees, costs, damage to persons or property, penalties, obligations, expenses or liabilities that may be asserted or claimed by any person or entity arising out of the negligent acts or omissions of Irvine in connection with the design, construction or maintenance of the Roadway Improvements or Intersection Improvements.

e. Payment of costs. For any portion of Total Costs incurred by Santa Ana as Lead Agency, Irvine shall pay to Santa Ana Irvine's funding obligation for such costs, as determined pursuant to paragraph a of this section, as follows: Santa Ana shall invoice Irvine not more than once monthly for costs incurred since the previous invoice. Each invoice shall be accompanied by a detailed statement of the nature of the costs incurred. Each proper invoice shall be paid by Irvine within thirty (30) days of

receipt. The parties agree to meet in good faith to resolve any dispute over any invoice or the need and necessity of any costs incurred. With regard to any action in eminent domain action undertaken by Santa Ana in the implementation of this Agreement, Santa Ana may require payments from Irvine at such times as Santa Ana determines to be appropriate to discharge its responsibilities in such action. The provisions of this paragraph may be modified and/or elaborated by the mutual agreement of the City Managers of Irvine and Santa Ana.

f. Monitoring of building permits. Irvine shall monitor the extent of development authorized by the issuance of building permits in the IBC and submit quarterly reports to Santa Ana commencing on or about the first week of January, 1993 (the "Quarterly Report"). The Quarterly Report shall indicate the gross square feet of development authorized by building permits issued for development in the IBC.

g. Cooperation. The parties hereto agree to cooperate in the implementation of this Agreement. In particular, but without limitation, Santa Ana and Irvine shall exercise good faith in cooperating with the California Department of Transportation ("Caltrans") in negotiating and entering into all necessary cooperative agreements for the funding, design, and construction of the Interchange Improvements.

3. Payment by Irvine to Santa Ana of Irvine's share.

a. The Interchange Improvements. In the event that (1) Santa Ana does not have available funds necessary to

enable it to perform its funding obligation for the Interchange Improvements at such time as Irvine is prepared to provide funds for the completion of its funding obligations for the Interchange Improvements, or (2) Caltrans has not taken any and all actions required by it to permit the construction of the Interchange Improvements at such time as Irvine is prepared to provide funds for the completion of its funding obligations for the Interchange Improvements, the City Managers of Irvine and Santa Ana shall defer the construction of the Interchange Improvements to a mutually agreeable date; provided, however, that in the event the parties cannot mutually agree upon a deferred date, Irvine shall pay to Santa Ana the amount of its funding obligation for the Interchange Improvements, and Irvine shall thereupon be relieved of any further responsibility for the completion of the Interchange Improvements pursuant to Section 1 of this Agreement, and the completion of the Interchange Improvements shall no longer be condition precedent to the issuance of building permits for development in excess of 51,000,000 square feet in the IBC.

b. Amount of payments. The amount of the payment due to Santa Ana from Irvine pursuant to this Section shall be the estimated Total Cost of the Interchange Improvements, to the extent of the work that remains to be done, at the time payment is made.

c. Use of funds by Santa Ana. Any funds received by Santa Ana from Irvine pursuant to this Section for the Interchange Improvements shall be used for the completion of the Interchange Improvements.

4. Amendment of Santa Ana General Plan.

Within two years of the execution of this Agreement, Santa Ana shall, if necessary, take action to amend its General Plan to accommodate the Interchange Improvements contemplated by this Agreement. In the event of any litigation challenging the amendment of Santa Ana's general plan to accommodate the Interchange Improvements, the abovesaid time period shall be extended for such time as may be necessary to resolve such litigation. Irvine shall not object to that portion of the Santa Ana General Plan amendment relating to the Interchange Improvements. In the event that, after the expiration of the abovesaid time period, Santa Ana has not amended its General Plan to accommodate the Interchange Improvements at such time as Irvine is prepared to provide funds for the completion of its funding obligations for the Interchange Improvements, then the completion of the Interchange Improvements shall no longer be a condition precedent to the issuance of building permits for development in excess of 51,000,000 square feet in the IBC. Unless and until Santa Ana amends its General Plan to accommodate the Interchange Improvements, or certifies to Irvine that the Santa Ana General Plan accommodates the Interchange Improvements, Irvine shall have no obligation to fund the Interchange Improvements.

Within two years of the execution of this Agreement, Santa Ana shall take an action to amend its General Plan to accommodate the Roadway Improvement contemplated by this Agreement. In the event of any litigation challenging the amendment of Santa

Ana's general plan to accommodate the Roadway Improvement, the abovesaid time period shall be extended for such time as may be necessary to resolve such litigation. Irvine shall not object to that portion of the Santa Ana General Plan amendment relating to the Roadway Improvements or to any Santa Ana General Plan designation of any portion of Dyer Road outside of the area of the Roadway Improvements adopted to effectuate this Agreement. In the event that, after the expiration of the abovesaid time period, Santa Ana has not amended its General Plan to accommodate the Roadway Improvements at such time as Irvine is prepared to acquire land for the Roadway Improvements, then Irvine shall no longer have any obligation under this Agreement to construct or fund the Roadway Improvements.

5. Participation in Five-City Study.

Irvine shall not request Santa Ana's participation in the Five-City study referenced in IBC EIR Condition No. 8 and IBC Mitigation Monitoring and Reporting Checklist Mitigation Measure No. 7A.

6. Payment for Main Street Widening.

Irvine shall not request that Santa Ana contribute any funds whatsoever for the widening of Main Street to six (6) lanes between Sunflower Avenue and San Diego Creek.

7. Covenant Not to Sue.

Each Party, and its respective agents, officers, employees, representatives and assigns hereby agrees and covenants that this Agreement forever satisfies any past, present, or future

claims which the Party, and its agents, officers, employees, representatives or assigns had, has or may have against the other Party or its agents, officers, employees, representatives, and assigns arising out of the IBC Rezoning and/or the preparation and certification of the IBC EIR. As a result, each Party hereto covenants not to file any future legal actions of whatever kind or nature against the other Party regarding any claim in connection with the IBC Rezoning or the IBC EIR whether such claim is known or unknown, suspected or unsuspected, fixed or contingent.

8. Waiver of Civil Code Section 1542.

Each of the Parties hereto expressly waives any and all rights under Section 1542 of the California Civil Code or any Federal or State statutory right, rules or principles of common law or equity or those of any other jurisdiction, government or political subdivision thereof, similar to Civil Code Section 1542 (hereinafter referred to "Similar Provision"). Thus, no Party hereto may invoke the benefit of Section 1542 or any Similar Provision in order to prosecute or assert in any manner any claim released hereunder. Section 1542 provides that:

> "a general release does not extend to claims which the creditor does not know or suspect to exist in his favor at the time of executing the release, which if known by him must have materially effected his settlement with the debtor."

9. Integration.

This Agreement represents the entire understanding of the Parties hereto. No prior or contemporaneous oral or written

understanding shall be of any force or effect with respect to those matters covered in this Agreement. This Agreement may not be altered, amended, or modified except by mutual consent of the Parties hereto through a written instrument.

10. Attorneys Fees.

In the event that any Party hereto should bring any action, suit or other proceeding to remedy, prevent, or obtain relief from a breach of this Agreement or arising out of a breach of this Agreement, or contesting the validity of this Agreement or attempting to rescind, negate, modify, or reform this Agreement, or any of the terms or provisions of this Agreement, the prevailing Party shall recover from such Party those reasonable attorneys fees and costs, including expert fees, incurred in each and every such action, suit, or other proceeding, including any and all appeals or petitions therefrom.

11. California Law.

This Agreement shall be construed and interpreted both as to validity and performance of the Parties in accordance with the laws of the State of California.

12. Execution and Counterparts.

This Agreement may be executed and delivered in any number of counterparts or copies ("Counterpart") by the Parties hereto.

13. Authority to Execute.

The persons executing this Agreement on behalf of the Parties hereto warrant that they are duly authorized to execute

this Agreement on behalf of said Parties and that by so executing this Agreement, the Parties hereto are formally bound to the provisions of this Agreement. Each person further acknowledges that he or she has obtained all necessary and legally required approvals for entry into this Agreement from legislative or governing boards and that it has adopted a resolution, motion, ordinance or other action pursuant to State law and its own bylaws or ordinances for approval of this Agreement.

14. Notices.

Every notice, demand, request, or other document or instrument delivered pursuant to this Agreement shall be in writing and shall either be personally delivered, sent by Federal Express or other reputable over-night courier, sent by facsimile transmission with the original subsequently delivered by any other means authorized herein, or sent by certified United States mail, postage prepaid, return receipt requested, to the address set forth below for the applicable Party, or such other address as Parties may designate from time to time:

To the City: City of Irvine
City Hall
One Civic Center Plaza
P.O. Box 19575
Irvine, CA 92713
Attn: City Manager
cc: Director of Community Development
Telephone: (714) 724-6000
Fax: (714) 724-6075

To the City: City of Santa Ana
20 Civic Center Plaza
P.O. Box 1988
Santa Ana, CA 92702
Attn: City Manager
cc: Executive Director of Planning and Building
Telephone: (714) 647-6900
Fax: (714) 647-6951

15. Severability clause.

The invalidity in whole or in part of any provision of this Agreement shall not void or affect the validity of any other provision of this Agreement.

IN WITNESS WHEREOF, the Parties have executed this Agreement on the date appearing next to their signatures.

Dated: 12/23/92

ATTEST:

Janice C. Guy
Clerk of the Council

APPROVED AS TO FORM:

Edward J. Cooper
City Attorney

CITY OF SANTA ANA

by Daniel H. Young
Mayor

Dated: 11-24-92

ATTEST:

Clerk of the Council

APPROVED AS TO FORM:

City Attorney

CITY OF IRVINE

by Sally Anne Sheridan
Mayor

Approved as to content

City Manager

Appendix D: Detail Layout and Cost Estimate Worksheets for Improvements

City of Irvine

City of Irvine List of Improvements and Associated Costs

Jurisdiction	Int ID	Intersection / Arterial Location	Improvement Strategy	Cost				Fair Share %	Total Cost to IBC Fee
				Construction Subtotal	ROW Subtotal	Contingency Cost*	Total		
Irvine	97	Von Karman Avenue/Tustin Ranch Road at Barranca Parkway	Add 3rd NBT and convert de facto right-turn to standard NBR	$2,918,631	$2,880,767	$1,759,316	$7,558,713	90%	$6,802,842
Irvine	98	Von Karman Avenue at Alton Parkway	Add 3rd NBT						
Irvine	134	Loop Road/Park Avenue at Warner Avenue	Add 3rd EBT and NBR overlap	$3,169,280	$340,175	$1,901,568	$5,411,023	90%	$4,869,921
Irvine	135	Jamboree NB Ramps/Warner Avenue	Add 2nd EBL	$1,389,515	$208,725	$994,757	$2,592,998	90%	$2,333,698
Irvine	188	Harvard Avenue at Michelson Drive	Widen SB to 2,2,1	$1,628,028	$10,725	$1,114,014	$2,752,766	90%	$2,477,489
Irvine	229	Culver Drive at Alton Parkway	Improve EB to 2,3,0 (de facto right)	$587,290	$23,095	$593,646	$1,204,030	90%	$1,083,627
Irvine		Red Hill Avenue between Main Street and Mac Arthur Boulevard	Widen from 4 lanes to 6 lanes.	$7,088,805	$7,077,301	$4,253,284	$18,419,390	90%	$16,577,451
Irvine		Gillette Avenue at Alton Parkway	New traffic signal (T-intersection)	$350,000	$0	$137,500	$487,500	90%	$438,750
								TOTAL	$34,583,778

*Contingency cost includes:

- Preliminary Project Development Cost (10% Construction Cost, minimum $300,000)
- Design Engineering/Administration Cost (15% Construction Cost)
- Construction Engineering Cost/Administration (15% Construction Cost)
- Contingency (20% Construction Cost)

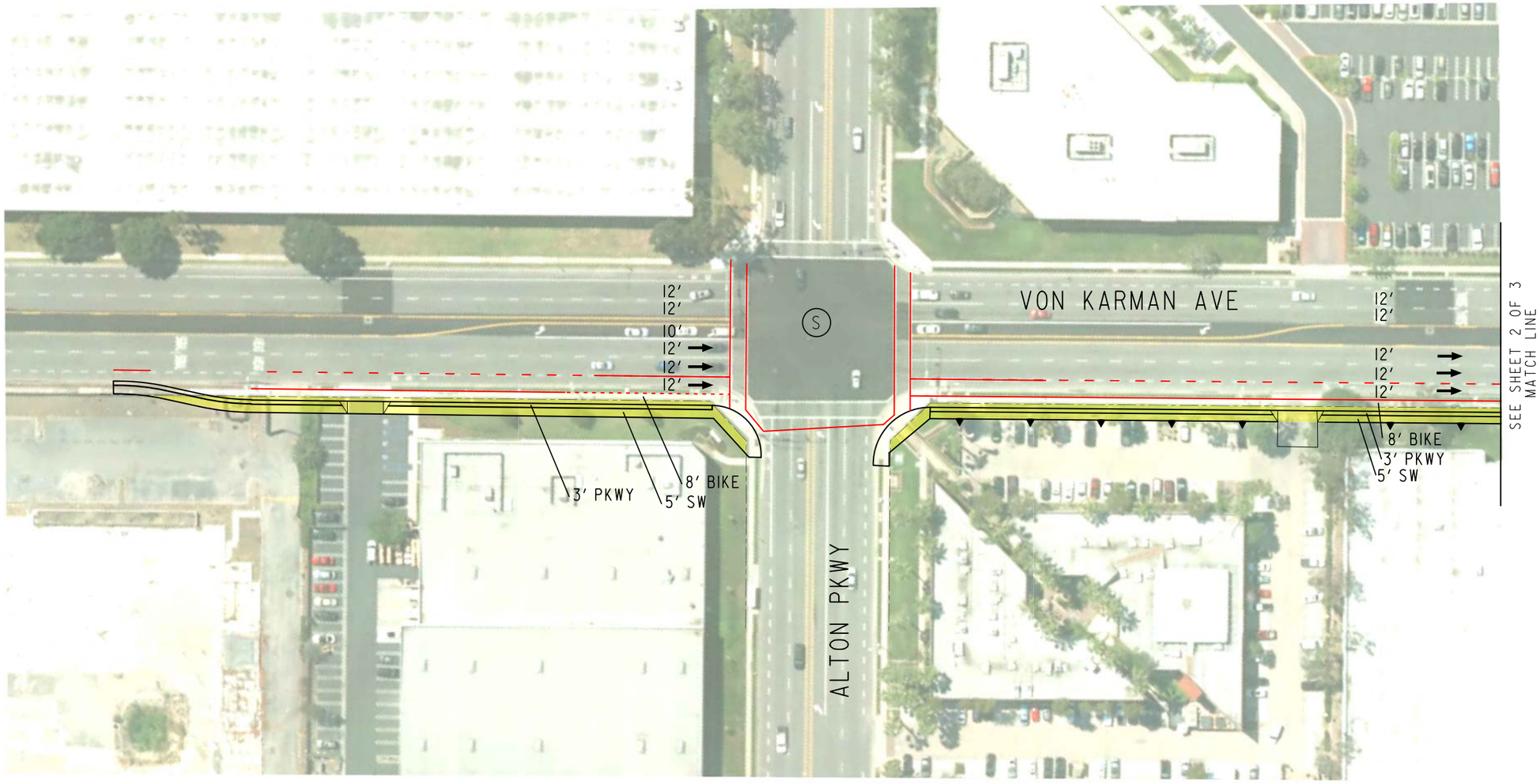
97 - Von Karman Avenue/Tustin Ranch Road at Barranca Parkway
and
98 - Von Karman Avenue at Alton Parkway

Irvine IBC - Nexus Study

Cost Estimate

Intersections #97 and #98
Von Karman Ave & Barranca Pkwy and Von Karman Ave & Alton Pkwy
Mitigations: Add 3rd NBT lane, Convert defacto right-turn to standard NBR

ITEM #	DESCRIPTION OF WORK	UNIT PRICE	UNIT	QUANTITY	COST	NOTES
	ROADWAY					
1	Clear & Grub	$12,200.00	AC	**0.85**	**$10,370**	
2	Earthwork	$46.00	CY	**1900**	**$87,400**	
3	Remove Curb & Gutter	$24.00	LF	**3085**	**$74,040**	
4	Remove Median Curb	$30.00	LF		**$0**	
5	Remove PCC Sidewalk	$5.00	SF	**16305**	**$81,525**	
6	Remove Pavement	$5.00	SF	**9600**	**$48,000**	
7	Remove Channel	$40.00	LF		**$0**	
8	Remove/Replace Chain Link Fence	$35.00	LF		**$0**	
9	Reconstruct Metal Beam Guard Rail	$40.00	LF		**$0**	
10	Remove & Replace Tree	$1,500.00	EA	**46**	**$69,000**	
11	Modify Driveway	$6,100.00	EA	**11**	**$67,100**	
12	Construct PCC Pavement	$14.00	SF		**$0**	
13	Construct AC Pavement	$8.00	SF	**34949**	**$279,592**	
14	Construct AC Overlay	$3.60	SF		**$0**	
15	Construct Slurry Seal	$0.40	SF		**$0**	
16	Construct AC Dike	$15.00	LF		**$0**	
17	Construct Curb & Gutter	$30.00	LF	**3042**	**$91,260**	
18	Construct Concrete Barrier	$80.00	LF		**$0**	
19	Construct Median Curb	$31.00	LF	**25**	**$775**	
20	Construct Median Concrete	$15.00	SF		**$0**	
21	Construct Median/Parkway Landscaping	$13.00	SF	**6719**	**$87,347**	
22	Construct PCC Sidewalk	$9.05	SF	**14590**	**$132,040**	
23	Construct Wheelchair Ramp	$6,000.00	EA	**12**	**$72,000**	
24	Construct Retaining Wall	$75.00	SF	**6360**	**$477,000**	Average Height = 3'
25	Remove Retaining Wall	$35.00	SF		**$0**	Caltrans has $35 per SF. $74 too high.
26	Relocate Monument Wall	$20,000.00	EA		**$0**	
27	Parkway Drain	$1,000.00	EA	**9**	**$9,000**	
28	Sawcut	$4.00	LF	**3032**	**$12,128**	
	ROADWAY SUBTOTAL				**$1,598,577**	
	TRAFFIC					
29	Remove Striping	$3.00	LF	**3100**	**$9,300**	Caltrans Cost $3 per LF. $13 too high.
30	Relocate Street Light	$6,200.00	EA	**12**	**$74,400**	
31	Modify Traffic Signal	$325,000.00	EA	**1**	**$325,000**	Alton Pkwy, Barranca Pkwy signals
32	New Traffic Signal	$425,000.00	EA		**$0**	
33	Install Striping	$5.00	LF	**4930**	**$24,650**	
34	Relocate Freeway Sign (2 post)	$700.00	EA		**$0**	
35	Loop Detector	$2000.00	EA	**8**	**$16,000**	
36	Relocate Sign (1 post)	$220.00	EA	**30**	**$6,600**	
37	Overhead Sign (2 posts)	$240,000.00	EA		**$0**	
38	Relocate Bus Bench	$1,458.00	EA	**1**	**$1,458**	
39	Install Ramp Metering System	$80,000.00	EA		**$0**	
40	Install Delineator	$36.60	EA		**$0**	
41	Apply ATMS	$113,165.00	LS		**$0**	
	TRAFFIC SUBTOTAL				**$457,408**	
	UTILITIES AND DRAINAGE					
42	Relocate Call Box	$2,051.00	EA		**$0**	
43	Relocate Power Pole	$25,000.00	EA		**$0**	
44	Relocate Catch Basin	$9,760.00	EA	**2**	**$19,520**	
45	Relocate Fire Hydrant	$5,000.00	EA		**$0**	
46	Relocate Utility Boxes	$1000.00	EA	**50**	**$50,000**	
47	Relocate Main Water Valve	$12,200.00	EA		**$0**	
48	Relocate Utility Vault	$10,000.00	EA	**6**	**$60,000**	
49	Adjust Manhole to Grade	$1,500.00	EA		**$0**	
50	Adjust Water Meter	$1000.00	EA		**$0**	
51	Adjust Water Valve	$1000.00	EA	**2**	**$2,000**	
52	Adjust Minor Above Ground Utilities	$1000.00	EA		**$0**	
53	Construct Striping & Marking	$2.00	LF		**$0**	
54	Construct Storm Drain Main	$122.00	LF		**$0**	
55	Construct RCB	$549.00	CY		**$0**	
56	Construct Channel (Earthen)	$12.20	LF		**$0**	
57	Relocate FDC	$15000.00	EA	**5**	**$75,000**	
58	Construct Concrete V-Ditch	$19.00	LF		**$0**	
59	Construct Bridge Widening	$500.00	SF		**$0**	
	UTILITIES AND DRAINAGE SUBTOTAL				**$206,520**	
	GENERAL					
60	Mobilization	10.00%	LS	**1**	**$226,250**	
61	Traffic Control	8%	LS	**1**	**$181,000**	
62	Utility Relocations	5%	LS	**1**	**$113,125**	
63	SWPPP Plan and Implementation	6%	LS	**1**	**$135,750**	
	CONSTRUCTION SUBTOTAL				**$2,918,631**	
	RIGHT-OF-WAY					
64	Right-Of-Way	$70.00	SF	**34721**	**$2,430,470**	Increase for 2016
65	Parking Impacts	$20,000.00	EA	**5**	**$100,000**	
66	Temporary Construction Easements	$6.50	SF	**15000**	**$97,500**	
67	Right-of-Way Management	10%	LS	**1**	**$252,797**	
	RIGHT-OF-WAY SUBTOTAL				**$2,880,767**	
TOTAL CONSTRUCTION & RIGHT-OF-WAY COST:					**$5,799,398**	
Preliminary Project Development (10% Construction Cost, min $300,000)					**$300,000**	
Design Engineering/Administration Cost (15% Construction Cost)					**$437,795**	
Construction Engineering Costs/Administration (15% Construction Cost)					**$437,795**	
Contingency (20% Construction Cost)					**$583,726**	
TOTAL PROJECT COSTS					**$7,558,713**	



IRVINE INTERSECTIONS 97 & 98

VON KARMAN AVE AT BARRANCA PKWY

VON KARMAN AVE AT ALTON PKWY

SHEET 1 OF 3

LEGEND

- (S) SIGNALIZED INTERSECTION
- → DIRECTION OF TRAVEL
- PROPOSED ROW
- XX' PROPOSED LANE WIDTH
- PROPOSED RETAINING WALL

MITIGATIONS - IRVINE INTERSECTION 98

(VON KARMAN AVE & ALTON PKWY)

1. ADD 3RD NORTHBOUND THROUGH LANE

MITIGATIONS - IRVINE INTERSECTION 97

(VON KARMAN AVE AT BARRANCA PKWY)

1. ADD 3RD NORTHBOUND THROUGH LANE
2. CONVERT DEFACTO RIGHT-TURN TO STANDARD NBR

SEPTEMBER 14, 2016

CITY OF IRVINE 1971

PLAN PREPARED BY: HDR

2015 IBC NEXUS STUDY
ROADWAY IMPROVEMENTS

CITY OF IRVINE
COMMUNITY DEVELOPMENT

PATH =
DWG =
VIEW =

SHEET REVISED: 8/15/07

LEGEND

- (S) SIGNALIZED INTERSECTION
- → DIRECTION OF TRAVEL
- PROPOSED ROW
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MITIGATIONS - IRVINE INTERSECTION 98
(VON KARMAN AVE & ALTON PKWY)

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(VON KARMAN AVE AT BARRANCA PKWY)

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IRVINE INTERSECTIONS 97 & 98
VON KARMAN AVE AT BARRANCA PKWY
VON KARMAN AVE AT ALTON PKWY
SHEET 2 OF 3

SEPTEMBER 14, 2016

PLAN PREPARED BY:

2015 IBC NEXUS STUDY
ROADWAY IMPROVEMENTS

CITY OF IRVINE
COMMUNITY DEVELOPMENT

VIEW = DWG = PATH =

SHEET REVISED: 8/15/07

LEGEND

- (S) SIGNALIZED INTERSECTION
- → DIRECTION OF TRAVEL
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MITIGATIONS - IRVINE INTERSECTION 98
(VON KARMAN AVE & ALTON PKWY)

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MITIGATIONS - IRVINE INTERSECTION 97
(VON KARMAN AVE AT BARRANCA PKWY)

(1) ADD 3RD NORTHBOUND THROUGH LANE

(2) CONVERT DEFACTO RIGHT-TURN TO STANDARD NBR

IRVINE INTERSECTIONS 97 & 98
VON KARMAN AVE AT BARRANCA PKWY
VON KARMAN AVE AT ALTON PKWY
SHEET 3 OF 3

DECEMBER, 2016

CITY OF IRVINE 1971

PLAN PREPARED BY: HDR

2015 IBC NEXUS STUDY
ROADWAY IMPROVEMENTS

CITY OF IRVINE
COMMUNITY DEVELOPMENT

PATH =
DWG =
VIEW =

SHEET REVISED: 8/15/07

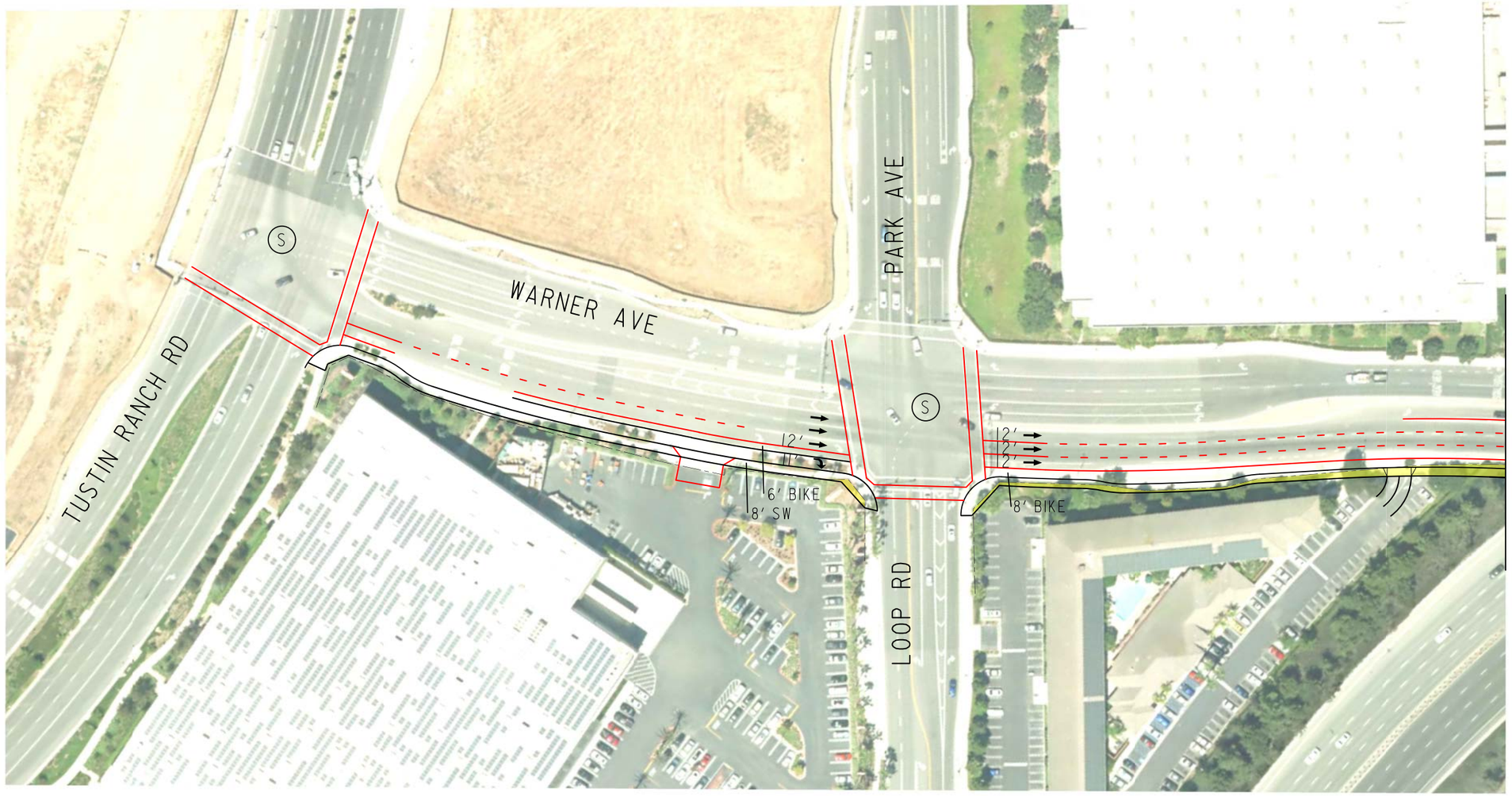
134 - Loop Road/Park Avenue at Warner Avenue

Irvine IBC - Nexus Study

Cost Estimate

Intersection 134
Loop Rd/Park Ave & Warner Ave

ITEM #	DESCRIPTION OF WORK	UNIT PRICE (2012 STUDY)	UNIT PRICE (HDR REVISION)	UNIT	QUANTITY	COST	NOTES
	ROADWAY						
1	Clear & Grub	$12,200.00	$12,200.00	AC	0.34	**$4,201**	
2	Earthwork	$46.00	$46.00	CY	3500	**$161,000**	
3	Remove Curb & Gutter	$36.00	$24.00	LF	1500	**$36,000**	Caltrans has $24 per LF. $36 too high
4	Remove Median Curb	$37.00	$30.00	LF	0	**$0**	Caltrans has $30 per LF. $37 too high
5	Remove PCC Sidewalk	$5.00	$5.00	SF	12800	**$64,000**	
6	Remove Pavement	$5.00	$5.00	SF	3700	**$18,500**	PCC bus stop pad
7	Remove Channel	$40.00	$40.00	LF	0	**$0**	
8	Remove/Replace Chain Link Fence	$31.00	$35.00	LF	0	**$0**	
9	Reconstruct Metal Beam Guard Rail	$86.00	$40.00	LF	0	**$0**	Caltrans has $30 per LF. $86 too high
10	Remove & Replace Tree	$1,500.00	$1,500.00	EA	10	**$15,000**	
11	Modify Driveway	$6,100.00	$6,100.00	EA	2	**$12,200**	
12	Construct PCC Pavement	$7.50	$14.00	SF	3700	**$51,800**	2 bus pads
13	Construct AC Pavement	$6.00	$8.00	SF	15000	**$120,000**	
14	Construct AC Overlay	$2.50	$3.60	SF	0	**$0**	
15	Construct Slurry Seal	$0.40	$0.40	SF	0	**$0**	
16	Construct AC Dike	$4.00	$15.00	LF	0	**$0**	
17	Construct Curb & Gutter	$19.00	$30.00	LF	1500	**$45,000**	$30 per recent Irvine bids
18	Construct Concrete Barrier	$295.00	$80.00	LF	0	**$0**	Caltrans has $80 per LF.
19	Construct Median Curb	$31.00	$31.00	LF	0	**$0**	
20	Construct Median Concrete	$7.90	$15.00	SF	0	**$0**	
21	Construct Median/Parkway Landscaping	$13.00	$13.00	SF	10000	**$130,000**	Includes new irrigation, Excludes Ex irrigation util box relocation
22	Construct PCC Sidewalk	$9.05	$9.05	SF	12800	**$115,840**	
23	Construct Wheelchair Ramp	$5,200.00	$6,000.00	EA	8	**$48,000**	6 curb returns and 1 ADA ramp mod
24	Construct Retaining Wall	$114.00	$75.00	SF	855	**$64,125**	285' x 3'
25	Remove Retaining Wall	$74.00	$35.00	SF	0	**$0**	
26	Relocate Monument Wall	$20,000.00	$20,000.00	EA	1	**$20,000**	
27	Tie-Back Wall (Includes Structural Ex, R&R PCC Slope paving)	-	$300.00	SF	3000	**$900,000**	
28	Sawcut	$1.25	$4.00	LF	1500	**$6,000**	
	ROADWAY SUBTOTAL					**$1,811,666**	
	TRAFFIC						
29	Remove Striping	$13.00	$3.00	LF	3350	**$10,050**	Caltrans Cost $3 per LF. $13 too high.
30	Remove Pavement Markings	-	$150.00	EA	11	**$1,650**	
31	Relocate Street Light	$5,700.00	$6,200.00	EA	7	**$43,400**	
32	Modify Traffic Signal	$300,000.00	$325,000.00	EA	1.25	**$406,250**	
33	New Traffic Signal	-	$425,000.00	EA	0	**$0**	
34	Install Striping	-	$5.00	LF	5600	**$28,000**	
35	Install Pavement Markings	-	$350.00	EA	11	**$3,850**	
36	Relocate Freeway Sign (2 post)	$700.00	$700.00	EA	0	**$0**	
37	Loop Detector	$2,000.00	$2,000.00	EA	10	**$20,000**	
38	Remove Roadside Sign	-	$150.00	EA	0	**$0**	
39	Relocate Sign (1 post)	$220.00	$220.00	EA	28	**$6,160**	
40	Overhead Sign (2 posts)	$240,000.00	$240,000.00	EA	0	**$0**	
41	Relocate Bus Bench	$1,458.00	$1,458.00	EA	0	**$0**	
42	Install Ramp Metering System	$80,000.00	$80,000.00	EA	0	**$0**	
43	Install Delineator	$36.60	$36.60	EA	0	**$0**	
44	Apply ATMS	$113,165.00	$113,165.00	LS	0	**$0**	
	TRAFFIC SUBTOTAL					**$519,360**	
	UTILITIES AND DRAINAGE						
45	Relocate Call Box	$2,051.00	$2,051.00	EA	0	**$0**	
46	Relocate Power Pole	$25,000.00	$25,000.00	EA	0	**$0**	
47	Relocate Catch Basin	$9,760.00	$9,760.00	EA	3	**$29,280**	
48	Relocate Fire Hydrant	$5,000.00	$5,000.00	EA	4	**$20,000**	
49	Relocate Utility Boxes	$895.00	$1,000.00	EA	48	**$48,000**	
50	Relocate Main Water Valve	$12,200.00	$12,200.00	EA	0	**$0**	
51	Relocate Utility Vault	$10,000.00	$10,000.00	EA	2	**$20,000**	
52	Adjust Manhole to Grade	$1,500.00	$1,500.00	EA	3	**$4,500**	
53	Adjust Water Meter	$610.00	$1,000.00	EA	2	**$2,000**	
54	Adjust Water Valve	$610.00	$1,000.00	EA	2	**$2,000**	
55	Adjust Minor Above Ground Utilities	$610.00	$1,000.00	EA	0	**$0**	
56	Construct Striping & Marking	$2.00	$2.00	LF	0	**$0**	
57	Construct Storm Drain Main	$122.00	$122.00	LF	0	**$0**	
58	Construct RCB	$549.00	$549.00	CY	0	**$0**	
59	Construct Channel (Earthen)	$12.20	$12.20	LF	0	**$0**	
60	Construct Concrete V-Ditch	$19.00	$19.00	LF	0	**$0**	
61	Construct Bridge Widening	$500.00	$500.00	SF	0	**$0**	
	UTILITIES AND DRAINAGE SUBTOTAL					**$125,780**	
	GENERAL						
62	Mobilization	10.00%	$12,578	LS	1	**$245,681**	
63	Traffic Control	8% ($2,000 Min)	8%	LS	1	**$196,544**	
64	Utility Relocation	-	5%	LS	1	**$122,840.31**	
65	SWPPP Plan and Implementation	6%	6%	LS	1	**$147,408**	
	CONSTRUCTION SUBTOTAL					**$3,169,280**	
	RIGHT-OF-WAY						
66	Right-Of-Way	$65.00	$70.00	SF	3800	**$266,000**	Increase for 2016
67	Parking Impacts	$20,000.00	$20,000.00	EA	2	**$40,000**	
68	Temporary Construction Easements	$6.50	$6.50	SF	500	**$3,250**	
69	Right-of-Way Management	5%	10%	LS		**$30,925**	
	RIGHT-OF-WAY SUBTOTAL					**$340,175**	
TOTAL CONSTRUCTION & RIGHT-OF-WAY COST:						**$3,509,455**	
Preliminary Project Development (10% Construction Cost, min $200,000)						**$316,928**	
Design Engineering/Administration Cost (15% Construction Cost)						**$475,392**	
Construction Engineering Costs/Administration (15% Construction Cost)						**$475,392**	
Contingency (20% Construction Cost)						**$633,856**	
TOTAL PROJECT COSTS						**$5,411,023**	



LEGEND

- (S) SIGNALIZED INTERSECTION
- → DIRECTION OF TRAVEL
- PROPOSED ROW
- XX' PROPOSED LANE WIDTH

MITIGATIONS - TUSTIN/IRVINE INTERSECTION 134

(1) ADD 3RD EBT AND NBR OVERLAP

TUSTIN/IRVINE INTERSECTION 134
WARNER AVE AT PARK AVE/LOOP RD
SHEET 1 OF 2

DECEMBER, 2016

CITY OF IRVINE 1971

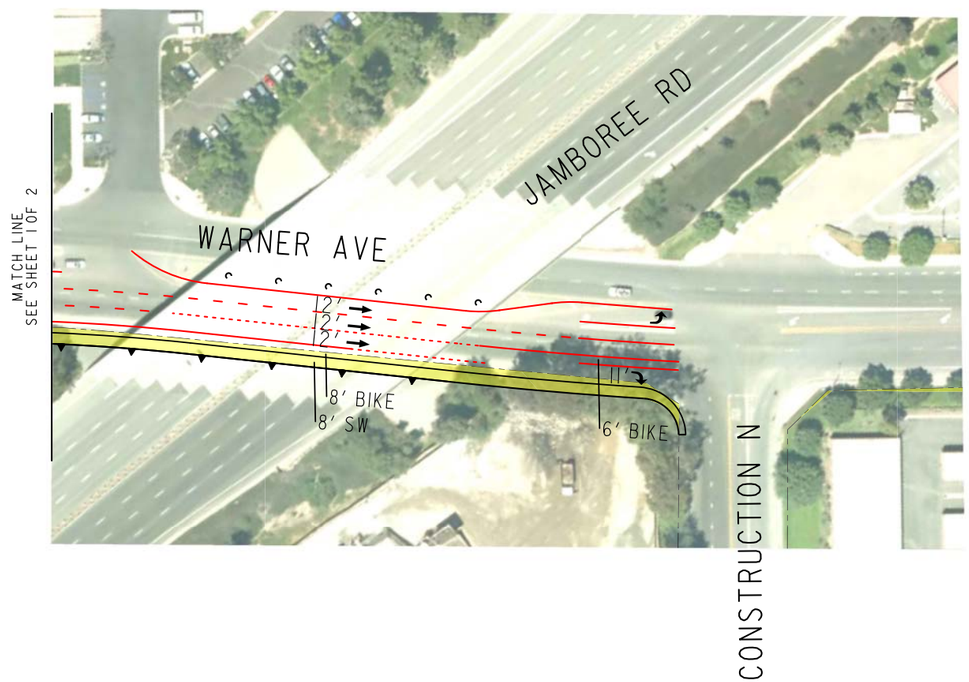
PLAN PREPARED BY: HDR

2015 IBC NEXUS STUDY
ROADWAY IMPROVEMENTS

CITY OF IRVINE
COMMUNITY DEVELOPMENT

VIEW = DWG = PATH =

SHEET REVISED: 8/15/07



TUSTIN/IRVINE INTERSECTION 134
WARNER AVE AT PARK AVE/LOOP RD
SHEET 2 OF 2

LEGEND

- (S) SIGNALIZED INTERSECTION
- → DIRECTION OF TRAVEL
- PROPOSED ROW
- XX' PROPOSED LANE WIDTH
- PROPOSED RETAINING WALL

MITIGATIONS - TUSTIN/IRVINE INTERSECTION 134

(1) ADD 3RD EBT AND NBR OVERLAP

DECEMBER, 2016

PLAN PREPARED BY:

2015 IBC NEXUS STUDY
ROADWAY IMPROVEMENTS

CITY OF IRVINE
COMMUNITY DEVELOPMENT

PATH =
DWG =
VIEW =

SHEET REVISED: 8/15/07

135 - Jamboree NB Ramps/Warner Avenue

Irvine IBC - Nexus Study

Cost Estimate

Intersection #135(a)
Warner Ave & Jamboree Rd
Mitigations: Add 2nd EBL

ITEM #	DESCRIPTION OF WORK	UNIT PRICE	UNIT	QUANTITY	COST	NOTES
	ROADWAY					
1	Clear & Grub	$12,200.00	AC	0.18	**$2,199**	
2	Earthwork	$46.00	CY	2800	**$128,800**	
3	Remove Curb & Gutter	$24.00	LF	1700	**$40,800**	
4	Remove Median Curb	$30.00	LF	0	**$0**	
5	Remove PCC Sidewalk	$5.00	SF	5500	**$27,500**	
6	Remove Pavement	$5.00	SF	9600	**$48,000**	
7	Remove Channel	$40.00	LF	0	**$0**	
8	Remove/Replace Chain Link Fence	$35.00	LF	0	**$0**	
9	Reconstruct Metal Beam Guard Rail	$40.00	LF	0	**$0**	
10	Remove & Replace Tree	$1,500.00	EA	30	**$45,000**	
11	Modify Driveway	$6,100.00	EA	1	**$6,100**	
12	Construct PCC Pavement	$14.00	SF	0	**$0**	
13	Construct AC Pavement	$8.00	SF	14500	**$116,000**	
14	Construct AC Overlay	$3.60	SF	0	**$0**	
15	Construct Slurry Seal	$0.40	SF	0	**$0**	
16	Construct AC Dike	$15.00	LF	0	**$0**	
17	Construct Curb & Gutter	$30.00	LF	1700	**$51,000**	
18	Construct Concrete Barrier	$80.00	LF	0	**$0**	
19	Construct Median Curb	$31.00	LF	0	**$0**	
20	Construct Median Concrete	$15.00	SF	0	**$0**	
21	Construct Median/Parkway Landscaping	$13.00	SF	6500	**$84,500**	Includes new irrigation, Excludes Ex irrigation util box relocation
22	Construct PCC Sidewalk	$9.05	SF	5500	**$49,775**	
23	Construct Wheelchair Ramp	$6,000.00	EA	4	**$24,000**	
24	Construct Retaining Wall	$75.00	SF	0	**$0**	assume 4'(6'H) x 300 LF wall at toe.
25	Remove Retaining Wall	$35.00	SF	0	**$0**	
26	Relocate Monument Wall	$20,000.00	EA	0	**$0**	
27	Sawcut	$4.00	LF	1750	**$7,000**	
	ROADWAY SUBTOTAL				**$630,674**	
	TRAFFIC					
28	Remove Striping	$3.00	LF	4000	**$12,000**	
29	Remove Pavement Markings	$150.00	EA	11	**$1,650**	
30	Relocate Street Light	$6,200.00	EA	2	**$12,400**	Along On-Ramp - Protect Street Lights along Warner (except on Sig Poles)
31	Modify Traffic Signal	$325,000.00	EA	1	**$325,000**	two corners modified
32	New Traffic Signal	$425,000.00	EA	0	**$0**	
33	Install Striping	$5.00	LF	6500	**$32,500**	
34	Install Pavement Markings	$350.00	EA	14	**$4,900**	
35	Relocate Freeway Sign (2 post)	$700.00	EA	1	**$700**	
36	Loop Detector	$2,000.00	EA	0	**$0**	video detection
37	Remove Roadside Sign	$150.00	EA	0	**$0**	
38	Relocate Sign (1 post)	$220.00	EA	7	**$1,540**	
39	Overhead Sign (2 posts)	$240,000.00	EA	0	**$0**	
40	Relocate Bus Bench	$1,458.00	EA	0	**$0**	
41	Install Ramp Metering System	$80,000.00	EA	0	**$0**	
42	Install Delineator	$36.60	EA	0	**$0**	
43	Apply ATMS	$113,165.00	LS	0	**$0**	
	TRAFFIC SUBTOTAL				**$390,690**	
	UTILITIES AND DRAINAGE					
44	Relocate Call Box	$2,051.00	EA	0	**$0**	
45	Relocate Power Pole	$25,000.00	EA	0	**$0**	
46	Relocate Catch Basin	$9,760.00	EA	3	**$29,280**	
47	Relocate Fire Hydrant	$5,000.00	EA	2	**$10,000**	
48	Relocate Utility Boxes	$1,000.00	EA	2	**$2,000**	
49	Relocate Main Water Valve	$12,200.00	EA	0	**$0**	
50	Relocate Utility Vault	$10,000.00	EA	0	**$0**	
51	Adjust Manhole to Grade	$1,500.00	EA	1	**$1,500**	
52	Adjust Water Meter	$1,000.00	EA	2	**$2,000**	
53	Adjust Water Valve	$1,000.00	EA	10	**$10,000**	
54	Adjust Minor Above Ground Utilities	$1,000.00	EA	1	**$1,000**	Area Drain
55	Construct Striping & Marking	$2.00	LF	0	**$0**	
56	Construct Storm Drain Main	$122.00	LF	0	**$0**	
57	Construct RCB	$549.00	CY	0	**$0**	
58	Construct Channel (Earthen)	$12.20	LF	0	**$0**	
59	Construct Concrete V-Ditch	$19.00	LF	0	**$0**	
60	Construct Bridge Widening	$500.00	SF	0	**$0**	
	UTILITIES AND DRAINAGE SUBTOTAL				**$55,780**	
	GENERAL					
61	Mobilization	$5,578	LS	1	**$107,714**	
62	Traffic Control	8%	LS	1	**$86,171**	
63	Utility Relocations	5%	LS	1	**$53,857**	
64	SWPPP Plan and Implementation	6%	LS	1	**$64,629**	
	CONSTRUCTION SUBTOTAL				**$1,389,515**	
	RIGHT-OF-WAY					
65	Right-Of-Way	$70.00	SF	2200	**$154,000**	
66	Parking Impacts	$20,000.00	EA	0	**$0**	
67	Temporary Construction Easements	$6.50	SF	5500	**$35,750**	
68	Right-of-Way Management	10%	LS	0	**$18,975**	
	RIGHT-OF-WAY SUBTOTAL				**$208,725**	
TOTAL CONSTRUCTION & RIGHT-OF-WAY COST:					**$1,598,240**	
Preliminary Project Development (10% Construction Cost, min $300,000)					**$300,000**	
Design Engineering/Administration Cost (15% Construction Cost)					**$208,427**	
Construction Engineering Costs/Administration (15% Construction Cost)					**$208,427**	
Contingency (20% Construction Cost)					**$277,903**	
TOTAL PROJECT COSTS					**$2,592,998**	

LEGEND

- (S) SIGNALIZED INTERSECTION
- → DIRECTION OF TRAVEL
- PROPOSED ROW
- XX' PROPOSED LANE WIDTH

IRVINE INTERSECTION 135(a)

WARNER AVE AT JAMBOREE RD RAMPS

SHEET 1 OF 1

DECEMBER, 2016

MITIGATIONS - IRVINE INTERSECTION 135(a)

(1) ADD SECOND EB LEFT-TURN LANE

CITY OF IRVINE 1971

PLAN PREPARED BY: HDR

2015 IBC NEXUS STUDY
ROADWAY IMPROVEMENTS

CITY OF IRVINE
COMMUNITY DEVELOPMENT

VIEW = DWG = PATH =

SHEET REVISED: 8/15/07

Irvine IBC - Nexus Study

Cost Estimate

Intersection 135(b)
Jamboree Rd & Warner Ave
Mitigations: Construct roundabout

ITEM #	DESCRIPTION OF WORK	UNIT PRICE	UNIT	QUANTITY	COST	NOTES
	ROADWAY					
1	Clear & Grub	$12,200.00	AC	0.16	**$2,007**	
2	Earthwork	$46.00	CY	1333	**$61,318**	
3	Remove Curb & Gutter	$24.00	LF	400	**$9,600**	
4	Remove Median Curb	$30.00	LF	380	**$11,400**	
5	Remove PCC Sidewalk	$5.00	SF	2400	**$12,000**	
6	Remove Pavement	$5.00	SF	32000	**$160,000**	
7	Remove Channel	$40.00	LF	0	**$0**	
8	Remove/Replace Chain Link Fence	$35.00	LF	0	**$0**	
9	Reconstruct Metal Beam Guard Rail	$40.00	LF	0	**$0**	
10	Remove & Replace Tree	$1,500.00	EA	25	**$37,500**	
11	Modify Driveway	$6,100.00	EA		**$0**	
12	Construct PCC Pavement	$14.00	SF	0	**$0**	
13	Construct AC Pavement	$8.00	SF	39900	**$319,200**	
14	Construct AC Overlay	$3.60	SF	0	**$0**	
15	Construct Slurry Seal	$0.40	SF	0	**$0**	
16	Construct AC Dike	$15.00	LF	0	**$0**	
17	Construct Curb & Gutter	$30.00	LF	450	**$13,500**	
18	Construct Concrete Barrier	$80.00	LF	0	**$0**	
19	Construct Median Curb	$31.00	LF	1050	**$32,550**	
20	Construct Median Concrete	$15.00	SF	220	**$3,300**	
21	Construct Median/Parkway Landscaping	$13.00	SF	5090	**$66,170**	
22	Construct PCC Sidewalk	$9.05	SF	2200	**$19,910**	
23	Construct Wheelchair Ramp	$6,000.00	EA	8	**$48,000**	
24	Construct Retaining Wall	$75.00	SF	0	**$0**	
25	Remove Retaining Wall	$35.00	SF	0	**$0**	
26	Relocate Monument Wall	$20,000.00	EA	0	**$0**	
27	Sawcut	$4.00	LF	200	**$800**	
	ROADWAY SUBTOTAL				**$797,255**	
	TRAFFIC					
28	Remove Striping	$3.00	LF	2500	**$7,500**	
29	Remove Pavement Markings	$150.00	EA	5	**$750**	
30	Relocate Street Light	$6,200.00	EA	5	**$31,000**	
31	Modify Traffic Signal	$325,000.00	EA	0	**$0**	
32	New Traffic Signal	$425,000.00	EA	0	**$0**	
33	Install Striping	$5.00	LF	2200	**$11,000**	
34	Install Pavement Markings	$350.00	EA	10	**$3,500**	
35	Relocate Freeway Sign (2 post)	$700.00	EA	0	**$0**	
36	Loop Detector	$2,000.00	EA	0	**$0**	
37	Remove Roadside Sign	$150.00	EA	5	**$750**	
38	Relocate Sign (1 post)	$220.00	EA	5	**$1,100**	
39	Install New Sign (1 post)	$280.00	EA	30	**$8,400**	
40	Overhead Sign (2 posts)	$240,000.00	EA	0	**$0**	
41	Remove Traffic Signal	$80,000.00	EA	1	**$80,000**	
42	Relocate Bus Bench	$1,458.00	EA	0	**$0**	
43	Install Ramp Metering System	$80,000.00	EA	0	**$0**	
44	Install Delineator	$36.60	EA	0	**$0**	
45	Apply ATMS	$113,165.00	LS	0	**$0**	
	TRAFFIC SUBTOTAL				**$144,000**	
	UTILITIES AND DRAINAGE					
46	Relocate Call Box	$2,051.00	EA		**$0**	
47	Relocate Power Pole	$25,000.00	EA		**$0**	
48	Relocate Catch Basin	$9,760.00	EA	3	**$29,280**	
49	Relocate Fire Hydrant	$5,000.00	EA		**$0**	
50	Relocate Utility Boxes	$1,000.00	EA	10	**$10,000**	
51	Relocate Main Water Valve	$12,200.00	EA		**$0**	
52	Relocate Utility Vault	$10,000.00	EA	2	**$20,000**	
53	Adjust Manhole to Grade	$1,500.00	EA	5	**$7,500**	
54	Adjust Water Meter	$1,000.00	EA	2	**$2,000**	
55	Adjust Water Valve	$1,000.00	EA	1	**$1,000**	
56	Adjust Minor Above Ground Utilities	$1,000.00	EA	2	**$2,000**	
57	Construct Striping & Marking	$2.00	LF		**$0**	
58	Construct Storm Drain Main	$122.00	LF		**$0**	
59	Construct RCB	$549.00	CY		**$0**	
60	Construct Channel (Earthen)	$12.20	LF		**$0**	
61	Construct Concrete V-Ditch	$19.00	LF		**$0**	
62	Construct Bridge Widening	$500.00	SF		**$0**	
	UTILITIES AND DRAINAGE SUBTOTAL				**$71,780**	
	GENERAL					
63	Mobilization	$7,178	LS	1	**$101,303**	
64	Traffic Control	8%	LS	1	**$81,043**	
65	Utility Relocations	5%	LS	1	**$50,651.73**	
66	SWPPP Plan and Implementation	6%	LS	1	**$60,782**	
	CONSTRUCTION SUBTOTAL				**$1,306,815**	
	RIGHT-OF-WAY					
67	Right-Of-Way	$70.00	SF	19100	**$1,337,000**	
68	Building Modifications	-	LS	1	**$300,000**	
69	Parking Impacts	$20,000.00	EA	5	**$100,000**	
70	Temporary Construction Easements	$6.50	SF	1000	**$6,500**	
71	Right-of-Way Management	10%	LS	1	**$144,350**	
	RIGHT-OF-WAY SUBTOTAL				**$1,887,850**	
TOTAL CONSTRUCTION & RIGHT-OF-WAY COST:					**$3,194,665**	
Preliminary Project Development (10% Construction Cost, min $300,000)					**$300,000**	
Design Engineering/Administration Cost (15% Construction Cost)					**$196,022**	
Construction Engineering Costs/Administration (15% Construction Cost)					**$196,022**	
Contingency (20% Construction Cost)					**$261,363**	
TOTAL PROJECT COSTS					**$4,148,072**	

Note: This was an alternative improvement considered, but costs were not included in fees

LEGEND

- (S) SIGNALIZED INTERSECTION
- → DIRECTION OF TRAVEL
- PROPOSED ROW
- XX' PROPOSED LANE WIDTH

MITIGATIONS - IRVINE INTERSECTION 135(b)

(1) ROUNDABOUT AT WARNER & JAMBOREE RD

IRVINE INTERSECTION 135(b)
WARNER AVE AT JAMBOREE RD RAMPS
SHEET 1 OF 1

DECEMBER, 2016

PLAN PREPARED BY: HDR

2015 IBC NEXUS STUDY
ROADWAY IMPROVEMENTS

CITY OF IRVINE
COMMUNITY DEVELOPMENT

VIEW = DWG = PATH =

SHEET REVISED: 8/15/07

188 - Harvard Avenue at Michelson Drive

Irvine IBC - Nexus Study

Cost Estimate

Intersection #188
Harvard Ave & Michelson Street
Mitigations: Widen SB TO 2,2,1 configuration

ITEM #	DESCRIPTION OF WORK	UNIT PRICE	UNIT	QUANTITY	COST	NOTES
	ROADWAY					
1	Clear & Grub	$12,200.00	AC	1.452	**$17,714**	
2	Earthwork	$46.00	CY	4000	**$184,000**	
3	Remove Curb & Gutter	$24.00	LF	650	**$15,600**	
4	Remove Median Curb	$30.00	LF	0	**$0**	
5	Remove PCC Sidewalk	$5.00	SF	3200	**$16,000**	
6	Remove Pavement	$5.00	SF	0	**$0**	
7	Remove Channel	$40.00	LF		**$0**	
8	Remove/Replace Chain Link Fence	$35.00	LF		**$0**	
9	Reconstruct Metal Beam Guard Rail	$40.00	LF		**$0**	
10	Remove & Replace Tree	$1,500.00	EA	4	**$6,000**	
11	Modify Driveway	$6,100.00	EA		**$0**	
12	Construct PCC Pavement	$14.00	SF		**$0**	
13	Construct AC Pavement	$8.00	SF	8000	**$64,000**	
14	Construct AC Overlay	$3.60	SF	0	**$0**	
15	Construct Slurry Seal	$0.40	SF	0	**$0**	
16	Construct AC Dike	$15.00	LF	0	**$0**	
17	Construct Curb & Gutter	$30.00	LF	650	**$19,500**	
18	Construct Concrete Barrier	$80.00	LF		**$0**	
19	Construct Median Curb	$31.00	LF	0	**$0**	
20	Construct Median Concrete	$15.00	SF	0	**$0**	
21	Construct Median/Parkway Landscaping	$13.00	SF	25000	**$325,000**	Includes new irrigation, Excludes Ex irrigation util box relocation
22	Construct PCC Sidewalk	$9.05	SF	3250	**$29,413**	
23	Construct Wheelchair Ramp	$6,000.00	EA	1	**$6,000**	
24	Construct Retaining Wall	$75.00	SF	1800	**$135,000**	assume 4'(6'H) x 300 LF wall at toe.
25	Remove Retaining Wall	$35.00	SF		**$0**	
26	Relocate Monument Wall	$20,000.00	EA		**$0**	
27	Sawcut	$4.00	LF	650	**$2,600**	
	ROADWAY SUBTOTAL				**$820,827**	
	TRAFFIC					
28	Remove Striping	$3.00	LF	3000	**$9,000**	
29	Remove Pavement Markings	$150.00	EA	8	**$1,200**	
30	Relocate Street Light	$6,200.00	EA	2	**$12,400**	
31	Modify Traffic Signal	$325,000.00	EA	1	**$325,000**	
32	New Traffic Signal	$425,000.00	EA	0	**$0**	
33	Install Striping	$5.00	LF	3500	**$17,500**	
34	Install Pavement Markings	$350.00	EA	10	**$3,500**	
35	Relocate Freeway Sign (2 post)	$700.00	EA		**$0**	
36	Loop Detector	$2,000.00	EA	15	**$30,000**	
37	Remove Roadside Sign	$150.00	EA	5	**$750**	
38	Relocate Sign (1 post)	$220.00	EA	5	**$1,100**	
39	Overhead Sign (2 posts)	$240,000.00	EA		**$0**	
40	Relocate Bus Bench	$1,458.00	EA	0	**$0**	
41	Install Ramp Metering System	$80,000.00	EA		**$0**	
42	Install Delineator	$36.60	EA	0	**$0**	
43	Apply ATMS	$113,165.00	LS	0	**$0**	
	TRAFFIC SUBTOTAL				**$400,450**	
	UTILITIES AND DRAINAGE					
44	Relocate Call Box	$2,051.00	EA		**$0**	
45	Relocate Power Pole	$25,000.00	EA		**$0**	
46	Relocate Catch Basin	$9,760.00	EA	1	**$9,760**	
47	Relocate Fire Hydrant	$5,000.00	EA		**$0**	
48	Relocate Utility Boxes	$1,000.00	EA		**$0**	
49	Relocate Main Water Valve	$12,200.00	EA		**$0**	
50	Relocate Utility Vault	$10,000.00	EA	3	**$30,000**	1 small & 1 Huge; assume 3
51	Adjust Manhole to Grade	$1,500.00	EA		**$0**	
52	Adjust Water Meter	$1,000.00	EA		**$0**	
53	Adjust Water Valve	$1,000.00	EA		**$0**	
54	Adjust Minor Above Ground Utilities	$1,000.00	EA	1	**$1,000**	Area Drain
55	Construct Striping & Marking	$2.00	LF		**$0**	
56	Construct Storm Drain Main	$122.00	LF		**$0**	
57	Construct RCB	$549.00	CY		**$0**	
58	Construct Channel (Earthen)	$12.20	LF		**$0**	
59	Construct Concrete V-Ditch	$19.00	LF		**$0**	
60	Construct Bridge Widening	$500.00	SF		**$0**	
	UTILITIES AND DRAINAGE SUBTOTAL				**$40,760**	
	GENERAL					
61	Mobilization	10%	LS	1	**$126,204**	
62	Traffic Control	8%	LS	1	**$100,963**	
63	Utility Relocation	5%	LS	1	**$63,102**	
64	SWPPP Plan and Implementation	6%	LS	1	**$75,722**	
	CONSTRUCTION SUBTOTAL				**$1,628,028**	
	RIGHT-OF-WAY					
65	Right-Of-Way	$70.00	SF	0	**$0**	
66	Parking Impacts	$20,000.00	EA	0	**$0**	
67	Temporary Construction Easements	$6.50	SF	1500	**$9,750**	
68	Right-of-Way Management	10%	LS	1	**$975**	
	RIGHT-OF-WAY SUBTOTAL				**$10,725**	
TOTAL CONSTRUCTION & RIGHT-OF-WAY COST:					**$1,638,753**	
Preliminary Project Development (10% Construction Cost, min $300,000)					**$300,000**	
Design Engineering/Administration Cost (15% Construction Cost)					**$244,204**	
Construction Engineering Costs/Administration (15% Construction Cost)					**$244,204**	
Contingency (20% Construction Cost)					**$325,606**	
TOTAL PROJECT COSTS					**$2,752,766**	

LEGEND

- (S) SIGNALIZED INTERSECTION
- → DIRECTION OF TRAVEL
- PROPOSED ROW
- XX' PROPOSED LANE WIDTH

MITIGATIONS - IRVINE INTERSECTION 188

(1) WIDEN SB TO 2, 2, 1 CONFIGURATION

IRVINE INTERSECTION 188
HARVARD DR & MICHELSON DR
SHEET 1 OF 1

DECEMBER, 2016

PLAN PREPARED BY:

HDR

2015 IBC NEXUS STUDY
ROADWAY IMPROVEMENTS

CITY OF IRVINE
COMMUNITY DEVELOPMENT

VIEW =
DWG =
PATH =

SHEET REVISED: 8/15/07

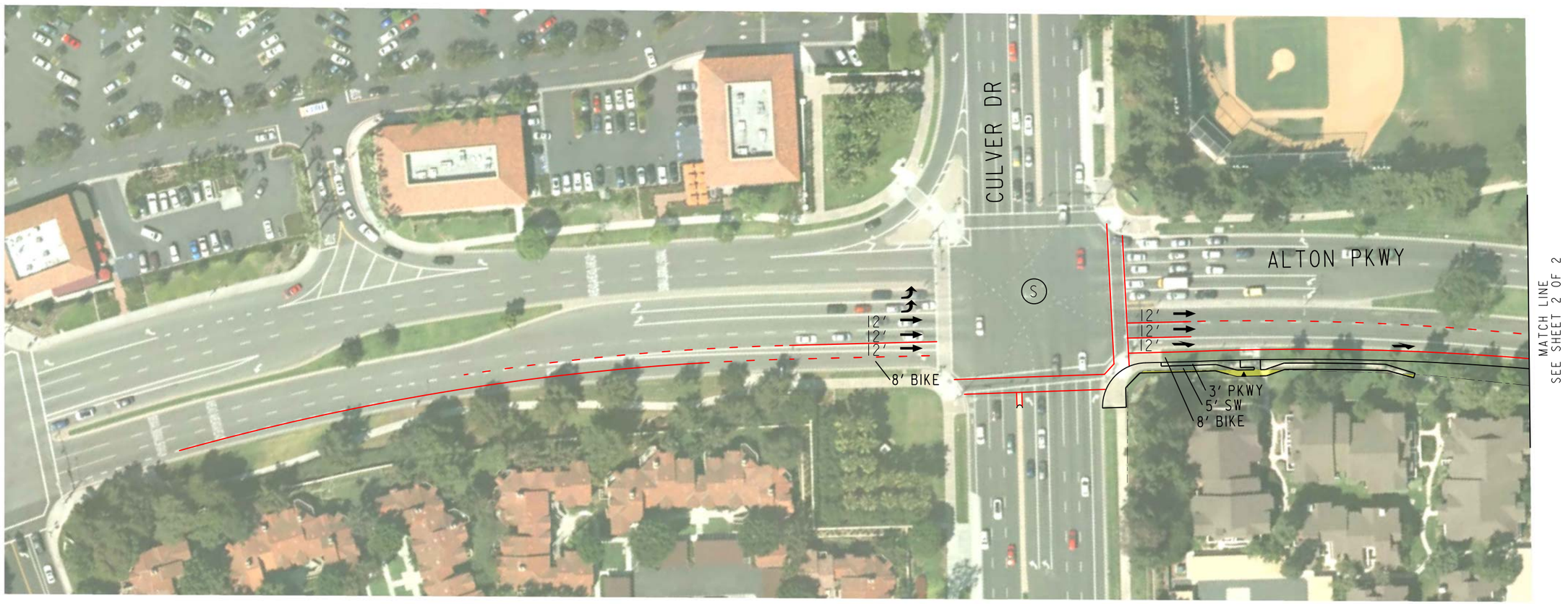
229 - Culver Drive at Alton Parkway

Irvine IBC - Nexus Study

Cost Estimate

Intersection #229
Culver Drive & Alton Parkway
Mitigations: Widen EB to 2, 3, defacto RT

ITEM #	DESCRIPTION OF WORK	UNIT PRICE	UNIT	QUANTITY	COST	NOTES
	ROADWAY					
1	Clear & Grub	$12,200.00	AC	0.18	$2,196	
2	Earthwork	$46.00	CY	1612	$74,152	
3	Remove Curb & Gutter	$24.00	LF	800	$19,200	
4	Remove Median Curb	$30.00	LF	29	$870	
5	Remove PCC Sidewalk	$5.00	SF	3639	$18,195	
6	Remove Pavement	$5.00	SF	1542	$7,710	
7	Remove Channel	$40.00	LF		$0	
8	Remove/Replace Chain Link Fence	$35.00	LF		$0	
9	Reconstruct Metal Beam Guard Rail	$40.00	LF		$0	
10	Remove & Replace Tree	$1,500.00	EA	15	$22,500	
11	Modify Driveway	$6,100.00	EA		$0	
12	Construct PCC Pavement	$14.00	SF		$0	
13	Construct AC Pavement	$8.00	SF	7490	$59,920	
14	Construct AC Overlay	$3.60	SF		$0	
15	Construct Slurry Seal	$0.40	SF		$0	
16	Construct AC Dike	$15.00	LF		$0	
17	Construct Curb & Gutter	$30.00	LF	751	$22,530	
18	Construct Concrete Barrier	$80.00	LF		$0	
19	Construct Median Curb	$31.00	LF	7	$217	
20	Construct Median Concrete	$15.00	SF	5	$75	
21	Construct Median/Parkway Landscaping	$13.00	SF	1949	$25,337	
22	Construct PCC Sidewalk	$9.05	SF	3437	$31,105	
23	Construct ADA Compliant Curb Ramp	$6,000.00	EA	1	$6,000	
24	Construct Retaining Wall	$75.00	SF	100	$7,500	
25	Remove Retaining Wall	$35.00	SF		$0	
26	Relocate Monument Wall	$20,000.00	EA		$0	
27	Sawcut	$4.00	LF	783	$3,132	
	ROADWAY SUBTOTAL				$300,639	
	TRAFFIC					
28	Remove Striping	$3.00	LF	2824	$8,472	
29	Remove Pavement Markings	$150.00	EA	5	$750	
30	Relocate Street Light	$6,200.00	EA		$0	
31	Modify Traffic Signal	$325,000.00	EA	0.25	$81,250	
32	New Traffic Signal	$425,000.00	EA		$0	
33	Install Striping	$5.00	LF	3021	$15,105	
34	Install Pavement Markings	$350.00	EA	8	$2,800	
35	Relocate Freeway Sign (2 post)	$700.00	EA		$0	
36	Loop Detector	$2000.00	EA	8	$16,000	
37	Remove Roadside Sign	$150.00	EA	1	$150	
38	Relocate Sign (1 post)	$220.00	EA	4	$880	
39	Overhead Sign (2 posts)	$240,000.00	EA		$0	
40	Relocate Bus Bench	$1,458.00	EA	1	$1,458	
41	Install Ramp Metering System	$80,000.00	EA		$0	
42	Install Delineator	$36.60	EA		$0	
43	Apply ATMS	$113,165.00	LS		$0	
	TRAFFIC SUBTOTAL				$126,865	
	UTILITIES AND DRAINAGE					
44	Relocate Call Box	$2,051.00	EA		$0	
45	Relocate Power Pole	$25,000.00	EA		$0	
46	Relocate Catch Basin	$9,760.00	EA	1	$9,760	
47	Relocate Fire Hydrant	$5,000.00	EA		$0	
48	Relocate Utility Boxes	$1000.00	EA	18	$18,000	
49	Relocate Main Water Valve	$12,200.00	EA		$0	
50	Relocate Utility Vault	$10,000.00	EA		$0	
51	Adjust Manhole to Grade	$1,500.00	EA		$0	
52	Adjust Water Meter	$1000.00	EA		$0	
53	Adjust Water Valve	$1000.00	EA		$0	
54	Adjust Minor Above Ground Utilities	$1000.00	EA		$0	
55	Construct Storm Drain Main	$122.00	LF		$0	
56	Construct RCB	$549.00	CY		$0	
57	Construct Channel (Earthen)	$12.20	LF		$0	
58	Construct Concrete V-Ditch	$19.00	LF		$0	
59	Construct Bridge Widening	$500.00	SF		$0	
	UTILITIES AND DRAINAGE SUBTOTAL				$27,760	
	GENERAL					
60	Mobilization	$3,776	LS	1	$45,526	
61	Traffic Control	8%	LS	1	$36,421	
62	Utility Relocation	5%	LS	1	$22,763	
63	SWPPP Plan and Implementation	6%	LS	1	$27,316	
	CONSTRUCTION SUBTOTAL				$587,290	
	RIGHT-OF-WAY					
64	Right-Of-Way	$70.00	SF	286	$20,020	
65	Parking Impacts	$20,000.00	EA		$0	
66	Temporary Construction Easements	$6.50	SF	150	$975	
67	Right-of-Way Management	10%	LS	1	$2,100	
	RIGHT-OF-WAY SUBTOTAL				$23,095	
TOTAL CONSTRUCTION & RIGHT-OF-WAY COST:					$610,385	
Preliminary Project Development (10% Construction Cost, min $300,000)					$300,000	
Design Engineering/Administration Cost (15% Construction Cost)					$88,094	
Construction Engineering Costs/Administration (15% Construction Cost)					$88,094	
Contingency (20% Construction Cost)					$117,458	
TOTAL PROJECT COSTS					$1,204,030	



LEGEND

- (S) SIGNALIZED INTERSECTION
- → DIRECTION OF TRAVEL
- PROPOSED ROW
- XX' PROPOSED LANE WIDTH
- PROPOSED RETAINING WALL

MITIGATIONS - IRVINE INTERSECTION 229

(1) WIDEN EB TO 2, 3, DEFACTO RT

IRVINE INTERSECTION 229
CULVER DR & ALTON PKWY
SHEET 1 OF 2

DECEMBER, 2016

CITY OF IRVINE 1971

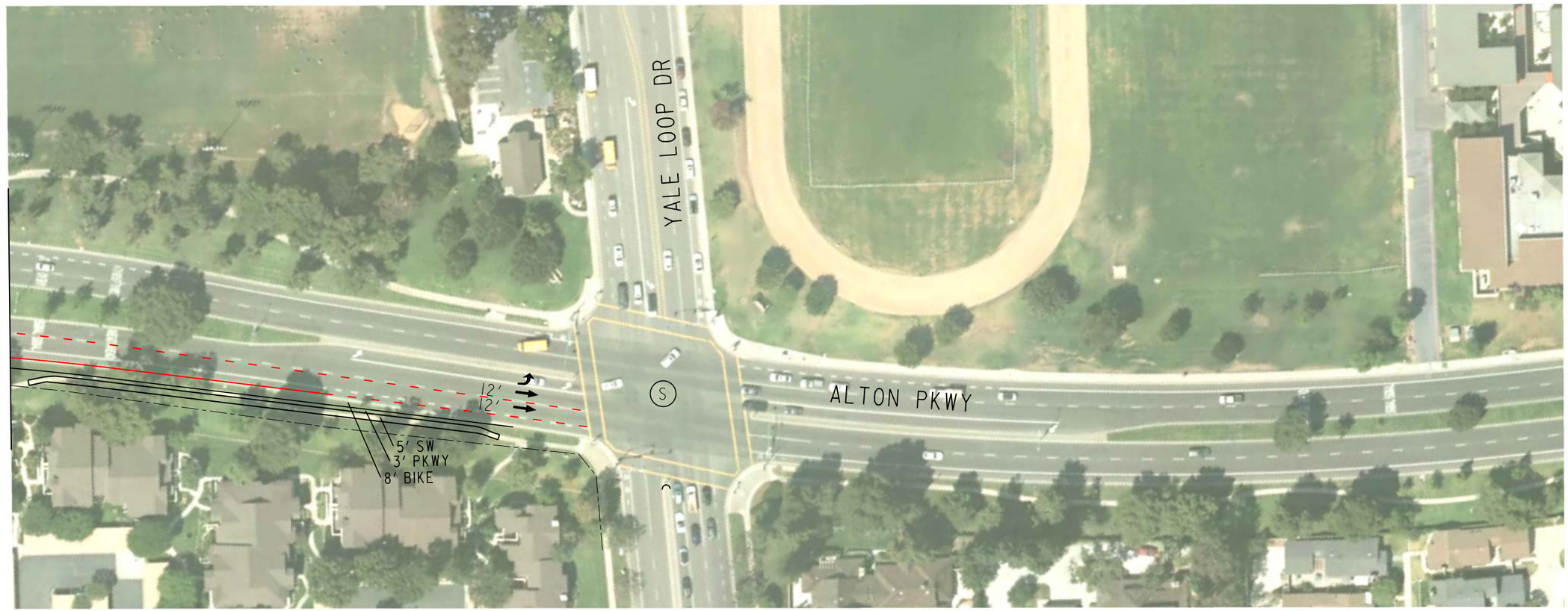
PLAN PREPARED BY: HDR

2015 IBC NEXUS STUDY
ROADWAY IMPROVEMENTS

CITY OF IRVINE
COMMUNITY DEVELOPMENT

VIEW = DWG = PATH =

SHEET REVISED: 8/15/07



IRVINE INTERSECTION 229
CULVER DR & ALTON PKWY
SHEET 2 OF 2

LEGEND

(S) SIGNALIZED INTERSECTION

→ DIRECTION OF TRAVEL

XX' PROPOSED LANE WIDTH

MITIGATIONS - IRVINE INTERSECTION 229

(1) WIDEN EB TO 2, 3, DEFACTO RT

DECEMBER, 2016

CITY OF IRVINE 1971

PLAN PREPARED BY: HDR

2015 IBC NEXUS STUDY
ROADWAY IMPROVEMENTS

CITY OF IRVINE
COMMUNITY DEVELOPMENT

VIEW = DWG = PATH =

SHEET REVISED: 8/15/07

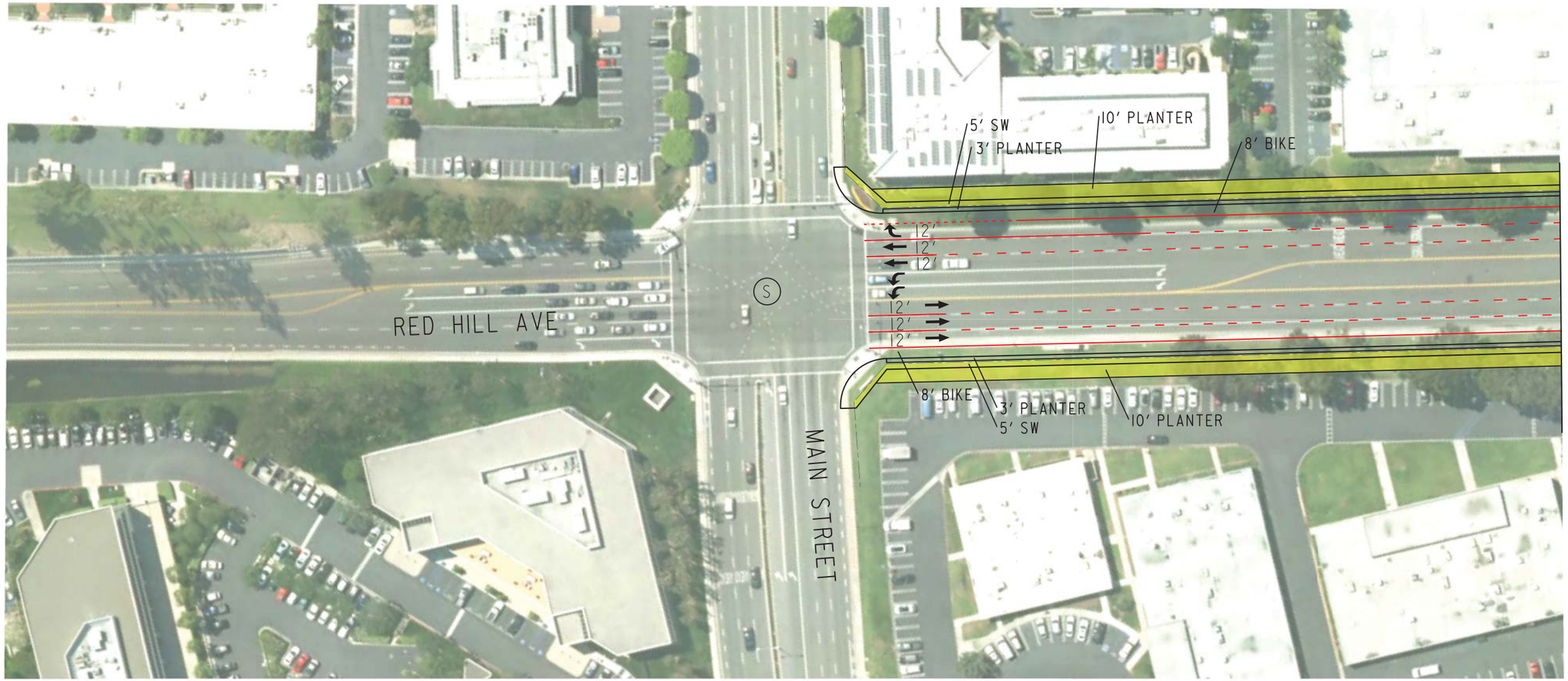
Red Hill Avenue between Main Street and MacArthur Boulevard

Irvine IBC - Nexus Study

Cost Estimate

Arterial
Red Hill Ave From Main St to MacArthur Blvd
Mitigations: Widen Red Hill from 4 lanes to 6 lanes between Main St and MacArthur Blvd

ITEM #	DESCRIPTION OF WORK	UNIT PRICE	UNIT	QUANTITY	COST	NOTES
	ROADWAY					
1	Clear & Grub	$12,200.00	AC	3.56	**$43,467**	
2	Earthwork	$46.00	CY	6798	**$312,705**	
3	Remove Curb & Gutter	$24.00	LF	4850	**$116,400**	
4	Remove Median Curb	$30.00	LF	35	**$1,050**	
5	Remove PCC Sidewalk	$5.00	SF	19416	**$97,080**	
6	Remove Pavement	$5.00	SF	7275	**$36,375**	
7	Remove Channel	$40.00	LF		**$0**	
8	Remove/Replace Chain Link Fence	$35.00	LF		**$0**	
9	Reconstruct Metal Beam Guard Rail	$40.00	LF		**$0**	
10	Remove & Replace Tree	$1,500.00	EA	45	**$67,500**	
11	Modify Driveway	$6,100.00	EA	6	**$36,600**	
12	Construct PCC Pavement	$14.00	SF		**$0**	
13	Construct AC Pavement	$8.00	SF	88600	**$708,800**	
14	Construct AC Overlay	$3.60	SF		**$0**	
15	Construct Slurry Seal	$0.40	SF		**$0**	
16	Construct AC Dike	$15.00	LF		**$0**	
17	Construct Curb & Gutter	$30.00	LF	4850	**$145,500**	
18	Construct Concrete Barrier	$80.00	LF		**$0**	
19	Construct Median Curb	$31.00	LF	30	**$930**	
20	Construct Median Concrete	$15.00	SF	262	**$3,930**	
21	Construct Median/Parkway Landscaping	$13.00	SF	88000	**$1,144,000**	Includes new irrigation, Excludes Ex irrigation util box relocation
22	Construct PCC Sidewalk	$9.05	SF	48500	**$438,925**	
23	Construct Wheelchair Ramp	$6,000.00	EA	9	**$54,000**	
24	Construct Retaining Wall	$75.00	SF	9700	**$727,500**	Average height 2' wall along entire length
25	Remove Retaining Wall	$35.00	SF		**$0**	
26	Relocate Monument Sign	$5,000.00	EA	3	**$15,000**	
27	Sawcut	$4.00	LF	4850	**$19,400**	
	ROADWAY SUBTOTAL				**$3,969,162**	
	TRAFFIC					
28	Remove Striping	$3.00	LF	25000	**$75,000**	
29	Remove Pavement Markings	$150.00	EA	28	**$4,200**	
30	Relocate Street Light	$6,200.00	EA	10	**$62,000**	
31	Modify Traffic Signal	$325,000.00	EA	2	**$650,000**	Sky Park N, Main St
32	New Traffic Signal	$425,000.00	EA		**$0**	
33	Install Striping	$5.00	LF	30300	**$151,500**	
34	Install Pavement Markings	$350.00	EA	32	**$11,200**	
35	Relocate Freeway Sign (2 post)	$700.00	EA		**$0**	
36	Loop Detector	$2,000.00	EA	6	**$12,000**	video detection
37	Remove Roadside Sign	$150.00	EA		**$0**	
38	Relocate Sign (1 post)	$220.00	EA	35	**$7,700**	
39	Overhead Sign (2 posts)	$240,000.00	EA		**$0**	
40	Relocate Bus Bench	$1,458.00	EA	2	**$2,916**	
41	Install Ramp Metering System	$80,000.00	EA		**$0**	
42	Install Delineator	$36.60	EA		**$0**	
43	Apply ATMS	$113,165.00	LS		**$0**	
	TRAFFIC SUBTOTAL				**$976,516**	
	UTILITIES AND DRAINAGE					
44	Relocate Call Box	$2,051.00	EA		**$0**	
45	Relocate Power Pole	$25,000.00	EA	14	**$350,000**	
46	Relocate High Voltage Power Pole	$100,000.00	EA	1	**$100,000**	At Mitchell S
47	Relocate Catch Basin	$9,760.00	EA	2	**$19,520**	
48	Relocate Fire Hydrant	$5,000.00	EA	5	**$25,000**	
49	Relocate Utility Boxes	$1,000.00	EA	32	**$32,000**	
50	Relocate Main Water Valve	$12,200.00	EA		**$0**	
51	Relocate Utility Vault	$10,000.00	EA	2	**$20,000**	
52	Adjust Manhole to Grade	$1,500.00	EA		**$0**	
53	Adjust Water Meter	$1,000.00	EA	3	**$3,000**	
54	Adjust Water Valve	$1,000.00	EA		**$0**	
55	Adjust Minor Above Ground Utilities	$1,000.00	EA		**$0**	
56	Construct Striping & Marking	$2.00	LF		**$0**	
57	Construct Storm Drain Main	$122.00	LF		**$0**	
58	Construct RCB	$549.00	CY		**$0**	
59	Construct Channel (Earthen)	$12.20	LF		**$0**	
60	Construct Concrete V-Ditch	$19.00	LF		**$0**	
61	Construct Bridge Widening	$500.00	SF		**$0**	
	UTILITIES AND DRAINAGE SUBTOTAL				**$549,520**	
	GENERAL					
62	Mobilization	$54,952	LS	1	**$549,520**	
63	Traffic Control	8%	LS	1	**$439,616**	
64	Utility Relocation	5%	LS	1	**$274,760**	
65	SWPPP Plan and Implementation	6%	LS	1	**$329,712**	
	CONSTRUCTION SUBTOTAL				**$7,088,805**	
	RIGHT-OF-WAY					
66	Right-Of-Way	$70.00	SF	90313	**$6,321,910**	
67	Parking Impacts	$20,000.00	EA	3	**$60,000**	
68	Temporary Construction Easements	$6.50	SF	8000	**$52,000**	
69	Right-of-Way Management	10%	LS		**$643,391**	
	RIGHT-OF-WAY SUBTOTAL				**$7,077,301**	
TOTAL CONSTRUCTION & RIGHT-OF-WAY COST:					**$14,166,106**	
Preliminary Project Development (10% Construction Cost, min $300,000)					**$708,881**	
Design Engineering/Administration Cost (15% Construction Cost)					**$1,063,321**	
Construction Engineering Costs/Administration (15% Construction Cost)					**$1,063,321**	
Contingency (20% Construction Cost)					**$1,417,761**	
TOTAL PROJECT COSTS					**$18,419,390**	



MATCH LINE
SEE SHEET 2 OF 4

IRVINE INTERSECTION
RED HILL AVE FROM MAIN ST TO MACARTHUR BLVD
SHEET 1 OF 4

LEGEND

- (S) SIGNALIZED INTERSECTION
- → DIRECTION OF TRAVEL
- PROPOSED ROW
- XX' PROPOSED LANE WIDTH

MITIGATIONS - IRVINE INTERSECTION

(1) WIDEN RED HILL AVE FROM 4-LANES TO 6-LANES BETWEEN MAIN STREET AND MACARTHUR BLVD

DECEMBER, 2016

CITY OF IRVINE 1971

PLAN PREPARED BY: HDR

2015 IBC NEXUS STUDY
ROADWAY IMPROVEMENTS

CITY OF IRVINE
COMMUNITY DEVELOPMENT

VIEW = DWG = PATH =

SHEET REVISED: 8/15/07

LEGEND

- (S) SIGNALIZED INTERSECTION
- → DIRECTION OF TRAVEL
- PROPOSED ROW
- XX' PROPOSED LANE WIDTH

MITIGATIONS - IRVINE INTERSECTION

(1) WIDEN RED HILL AVE FROM 4-LANES TO 6-LANES BETWEEN MAIN STREET AND MACARTHUR BLVD

IRVINE INTERSECTION
RED HILL AVE FROM MAIN ST TO MACARTHUR BLVD
SHEET 2 OF 4

DECEMBER, 2016

CITY OF IRVINE 1971

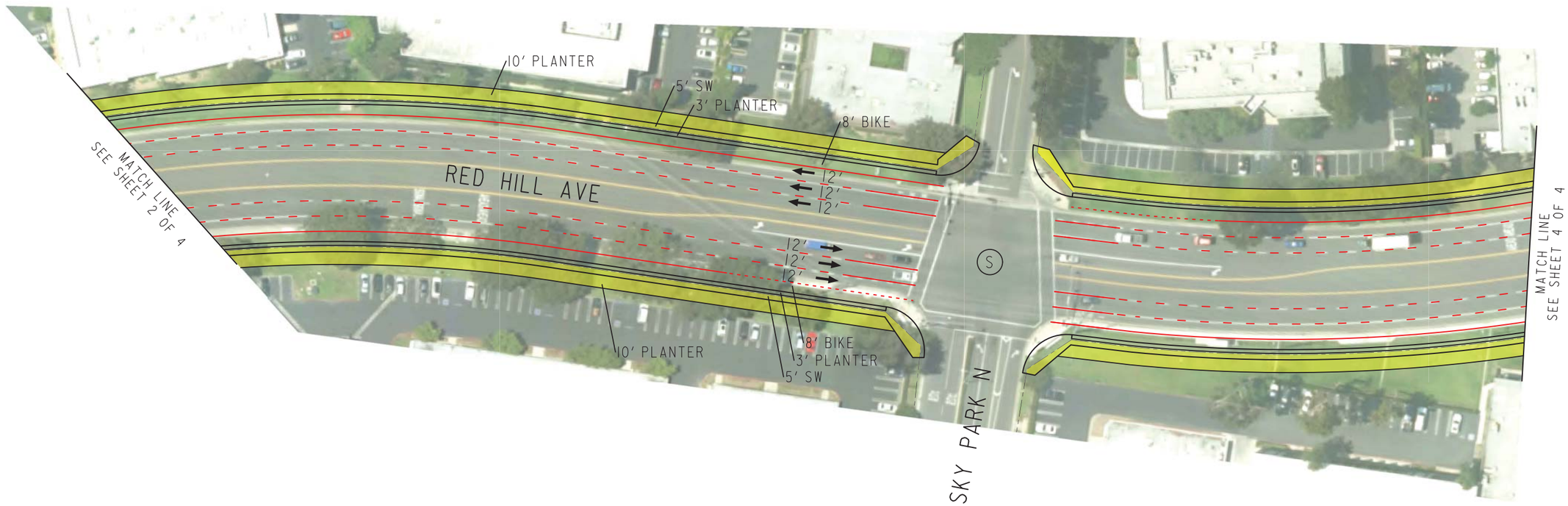
PLAN PREPARED BY: HDR

2015 IBC NEXUS STUDY
ROADWAY IMPROVEMENTS

CITY OF IRVINE
COMMUNITY DEVELOPMENT

VIEW = DWG = PATH =

SHEET REVISED: 8/15/07



LEGEND

- (S) SIGNALIZED INTERSECTION
- → DIRECTION OF TRAVEL
- PROPOSED ROW
- XX' PROPOSED LANE WIDTH

MITIGATIONS - IRVINE INTERSECTION

(1) WIDEN RED HILL AVE FROM 4-LANES TO 6-LANES BETWEEN MAIN STREET AND MACARTHUR BLVD

IRVINE INTERSECTION
RED HILL AVE FROM MAIN ST TO MACARTHUR BLVD
SHEET 3 OF 4

DECEMBER, 2016

PLAN PREPARED BY:

2015 IBC NEXUS STUDY
ROADWAY IMPROVEMENTS

CITY OF IRVINE
COMMUNITY DEVELOPMENT

VIEW = DWG = PATH =

SHEET REVISED: 8/15/07

IRVINE INTERSECTION
RED HILL AVE FROM MAIN ST TO MACARTHUR BLVD
SHEET 4 OF 4

LEGEND

- (S) SIGNALIZED INTERSECTION
- → DIRECTION OF TRAVEL
- PROPOSED ROW
- XX' PROPOSED LANE WIDTH

MITIGATIONS - IRVINE INTERSECTION

(1) WIDEN RED HILL AVE FROM 4-LANES TO 6-LANES BETWEEN MAIN STREET AND MACARTHUR BLVD

DECEMBER, 2016

CITY OF IRVINE 1971

PLAN PREPARED BY: HDR

2015 IBC NEXUS STUDY
ROADWAY IMPROVEMENTS

CITY OF IRVINE
COMMUNITY DEVELOPMENT

VIEW = DWG = PATH =

SHEET REVISED: 8/15/07

Gillete Avenue and Alton Parkway

Irvine IBC - Nexus Study

Cost Estimate

Gillette & Alton
Mitigations: New Traffic Signal (3-leg intersection)

ITEM #	DESCRIPTION OF WORK	UNIT PRICE	UNIT	QUANTITY	COST	NOTES
	ROADWAY					
1	Clear & Grub	$12,200.00	AC		**$0**	
2	Earthwork	$46.00	CY		**$0**	
3	Remove Curb & Gutter	$24.00	LF		**$0**	
4	Remove Median Curb	$30.00	LF		**$0**	
5	Remove PCC Sidewalk	$5.00	SF		**$0**	
6	Remove Pavement	$5.00	SF		**$0**	
7	Remove Channel	$40.00	LF		**$0**	
8	Remove/Replace Chain Link Fence	$35.00	LF		**$0**	
9	Remove and Replace Pedestal and Wrought Iron Fence	$75.00	LF		**$0**	
10	Remove and Replace Vinyl Fence	$40.00	LF		**$0**	
11	Reconstruct Metal Beam Guard Rail	$40.00	LF		**$0**	
12	Remove & Replace Tree	$1,500.00	EA		**$0**	
13	Modify Driveway	$6,100.00	EA		**$0**	
14	Construct PCC Pavement	$14.00	SF		**$0**	
15	Construct AC Pavement	$8.00	SF		**$0**	
16	Construct AC Overlay	$3.60	SF		**$0**	
17	Construct Slurry Seal	$0.40	SF		**$0**	
18	Construct AC Dike	$15.00	LF		**$0**	
19	Construct Curb & Gutter	$30.00	LF		**$0**	
20	Construct Concrete Barrier	$80.00	LF		**$0**	
21	Construct Median Curb	$31.00	LF		**$0**	
22	Construct Median Concrete	$15.00	SF		**$0**	
23	Construct Median/Parkway Landscaping	$13.00	SF		**$0**	
24	Construct PCC Sidewalk	$9.05	SF		**$0**	
25	Construct Wheelchair Ramp	$6,000.00	EA		**$0**	
26	Construct Retaining Wall	$75.00	SF		**$0**	
27	Remove Retaining Wall	$35.00	SF		**$0**	
28	Relocate Monument Wall	$20,000.00	EA		**$0**	
29	Sawcut	$4.00	LF		**$0**	
	ROADWAY SUBTOTAL				**$0**	
	TRAFFIC					
30	Remove Striping	$3.00	LF		**$0**	
31	Remove Pavement Markings	$150.00	EA		**$0**	
32	Relocate Street Light	$6,200.00	EA		**$0**	
33	Modify Traffic Signal	$325,000.00	EA		**$0**	
34	New Traffic Signal	$265,000.00	EA	1	**$350,000**	Small, 3-leg intersection
35	Install Striping	$5.00	LF		**$0**	
36	Install Pavement Markings	$350.00	EA		**$0**	
37	Relocate Freeway Sign (2 post)	$700.00	EA		**$0**	
38	Loop Detector	$2,000.00	EA		**$0**	
39	Remove Roadside Sign	$150.00	EA		**$0**	
40	Relocate Sign (1 post)	$220.00	EA		**$0**	
41	Overhead Sign (2 posts)	$240,000.00	EA		**$0**	
42	Relocate Bus Bench	$1,458.00	EA		**$0**	
43	Relocate Automatic Gate	$10,000.00	EA		**$0**	
44	Install Ramp Metering System	$80,000.00	EA		**$0**	
45	Install Delineator	$36.60	EA		**$0**	
46	Apply ATMS	$113,165.00	LS		**$0**	
	TRAFFIC SUBTOTAL				**$350,000**	
	UTILITIES AND DRAINAGE					
47	Relocate Call Box	$2,051.00	EA		**$0**	
48	Relocate Power Pole	$25,000.00	EA		**$0**	
49	Relocate Catch Basin	$9,760.00	EA		**$0**	
50	Relocate Fire Hydrant	$5,000.00	EA		**$0**	
51	Relocate Utility Boxes	$1,000.00	EA		**$0**	
52	Relocate Main Water Valve	$12,200.00	EA		**$0**	
53	Relocate Utility Vault	$10,000.00	EA		**$0**	
54	Adjust Manhole to Grade	$1,500.00	EA		**$0**	
55	Adjust Water Meter	$1,000.00	EA		**$0**	
56	Adjust Water Valve	$1,000.00	EA		**$0**	
57	Adjust Minor Above Ground Utilities	$1,000.00	EA		**$0**	
58	Construct Striping & Marking	$2.00	LF		**$0**	
59	Construct Storm Drain Main	$122.00	LF		**$0**	
60	Construct RCB	$549.00	CY		**$0**	
61	Construct Channel (Earthen)	$12.20	LF		**$0**	
62	Construct Concrete V-Ditch	$19.00	LF		**$0**	
63	Construct Bridge Widening	$500.00	SF		**$0**	
	UTILITIES AND DRAINAGE SUBTOTAL				**$0**	
	GENERAL					
64	Mobilization	$0	LS	0	**$0**	Included in unit cost
65	Traffic Control	8%	LS	0	**$0**	Included in unit cost
66	Utility Relocations	5%	LS	0	**$0**	None
67	SWPPP Plan and Implementation	6%	LS	0	**$0**	None
	CONSTRUCTION SUBTOTAL				**$350,000**	
	RIGHT-OF-WAY					
68	Right-Of-Way	$70.00	SF		**$0**	
69	Parking Impacts	$20,000.00	EA		**$0**	
70	Temporary Construction Easements	$6.50	SF		**$0**	
71	Right-of-Way Management	10%	LS		**$0**	
	RIGHT-OF-WAY SUBTOTAL				**$0**	
TOTAL CONSTRUCTION & RIGHT-OF-WAY COST:					**$350,000**	
Preliminary Project Development (10% Construction Cost)					**$0**	Not needed for traffic signal
Design Engineering/Administration Cost					**$15,000**	$15k for traffic signal
Construction Engineering Costs/Administration (15% Construction Cost)					**$52,500**	
Contingency (20% Construction Cost)					**$70,000**	
TOTAL PROJECT COSTS					**$487,500**	

City of Santa Ana

City of Santa Ana List of Improvements and Associated Costs

Jurisdiction	Int ID	Intersection / Arterial Location	Improvement Strategy	Cost				Fair Share %	Total Cost to IBC Fee
				Construction Subtotal	ROW Subtotal	Contingency Cost*	Total		
Santa Ana		Alton Overcrossing at SR-55	SR-55/Alton Parkway Overcrossing Project plus the following improvements: • Intersection #44: Red Hill / Alton (Add 1 NBR, convert de facto SBR to 1 SBR, add 2nd EBL, convert 1 WBR to free WBR) • Signalization and widening of Halladay Street / Alton Parkway • Signalization at Daimler Street / Alton Parkway TOTAL	$1,607,512	$493,488	$1,103,756	$55,500,000 $3,204,755 $800,000 $680,000 $60,184,755	50%	$30,092,378
Santa Ana		Dyer Road widening between SR-55 NB on ramp and e/o RR tracks (Phase 2)	Dyer Road widening from SR-55 to Red Hill Avenue (consistent with Barranca-Dyer Project Report)	$6,728,087	$14,246,363	$4,036,852	$25,011,301	90%	$22,510,171
Santa Ana	719	Flower Street and Segerstrom Avenue	Add eastbound de facto lane	$238,813	$53,900	$419,407	$712,124	9.6%	$68,364
								TOTAL	$52,670,912

*Contingency cost includes:

- Preliminary Project Development Cost (10% Construction Cost, minimum $300,000)
- Design Engineering/Administration Cost (15% Construction Cost)
- Construction Engineering Cost/Administration (15% Construction Cost)
- Contingency (20% Construction Cost)

Alton Overcrossing at SR-55

Irvine IBC - Nexus Study

Cost Estimate

Alton Parkway Overcrossing at SR-55 Improvements
Mitigations:
- SR-55/Alton Overcrossing Improvements per KOA Study, 2010 (includes widening of Halladay/Alton intersection of adding 1 EBT and WBT
- Intersection #44: Red Hill Avenue / Alton Parkway (add 1 NBR, 1 SBR, 2nd EBL, and 2nd WBL)
- Signalization at Daimler Street at Alton Parkway, Halladay Street at Alton Parkway

ITEM #	DESCRIPTION OF WORK	UNIT PRICE	UNIT	QUANTITY	COST	NOTES
	ROADWAY					
1	Clear & Grub	$12,200.00	AC	0.29	**$3,585**	
2	Earthwork	$46.00	CY	1333	**$61,333**	
3	Remove Curb & Gutter	$24.00	LF	1150	**$27,600**	
4	Remove Median Curb	$30.00	LF	0	**$0**	
5	Remove PCC Sidewalk	$5.00	SF	8040	**$40,200**	
6	Remove Pavement	$5.00	SF	1150	**$5,750**	
7	Remove Channel	$40.00	LF	0	**$0**	
8	Remove/Replace Chain Link Fence	$35.00	LF	0	**$0**	
9	Reconstruct Metal Beam Guard Rail	$40.00	LF	0	**$0**	
10	Remove & Replace Tree	$1,500.00	EA	8	**$12,000**	
11	Modify Driveway	$6,100.00	EA	2	**$12,200**	
12	Construct PCC Pavement	$14.00	SF	700	**$9,800**	Bus turnout
13	Construct AC Pavement	$8.00	SF	11500	**$92,000**	
14	Construct AC Overlay	$3.60	SF	0	**$0**	
15	Construct Slurry Seal	$0.40	SF	0	**$0**	
16	Construct AC Dike	$15.00	LF	0	**$0**	
17	Construct Curb & Gutter	$30.00	LF	1100	**$33,000**	
18	Construct Concrete Barrier	$80.00	LF	0	**$0**	
19	Construct Median Curb	$31.00	LF	0	**$0**	
20	Construct Median Concrete	$15.00	SF	0	**$0**	
21	Construct Median/Parkway Landscaping	$13.00	SF	3500	**$45,500**	Includes new irrigation, Excludes Ex irrigation util box relocation
22	Construct PCC Sidewalk	$9.05	SF	6500	**$58,825**	
23	Construct Wheelchair Ramp	$6,000.00	EA	4	**$24,000**	
24	Construct Retaining Wall	$75.00	SF	1320	**$99,000**	assume 4'(6'H) x 220 LF wall
25	Remove Retaining Wall	$35.00	SF	0	**$0**	
26	Relocate Monument Wall	$20,000.00	EA	0	**$0**	
27	Sawcut	$4.00	LF	1150	**$4,600**	
	ROADWAY SUBTOTAL				**$529,393**	
	TRAFFIC					
28	Remove Striping	$3.00	LF	4550	**$13,650**	
29	Remove Pavement Markings	$150.00	EA	8	**$1,200**	
30	Relocate Street Light	$6,200.00	EA	2	**$12,400**	
31	Modify Traffic Signal	$325,000.00	EA	0	**$0**	
32	New Traffic Signal	$425,000.00	EA	1	**$425,000**	Replace all new poles and controler
33	Install Striping	$5.00	LF	5750	**$28,750**	
34	Install Pavement Markings	$350.00	EA	22	**$7,700**	
35	Relocate Freeway Sign (2 post)	$700.00	EA	0	**$0**	
36	Loop Detector	$2,000.00	EA	0	**$0**	
37	Remove Roadside Sign	$150.00	EA	0	**$0**	
38	Relocate Sign (1 post)	$220.00	EA	6	**$1,320**	
39	Overhead Sign (2 posts)	$240,000.00	EA	0	**$0**	
40	Relocate Bus Bench	$1,458.00	EA	0	**$0**	
41	Install Ramp Metering System	$80,000.00	EA	0	**$0**	
42	Install Delineator	$36.60	EA	0	**$0**	
43	Apply ATMS	$113,165.00	LS	0	**$0**	
	TRAFFIC SUBTOTAL				**$490,020**	
	UTILITIES AND DRAINAGE					
44	Relocate Call Box	$2,051.00	EA	0	**$0**	
45	Relocate Power Pole	$25,000.00	EA	6	**$150,000**	2 complex pole with comm., assume 6 poles
46	Relocate Catch Basin	$9,760.00	EA	2	**$19,520**	
47	Relocate Fire Hydrant	$5,000.00	EA	2	**$10,000**	
48	Relocate Utility Boxes	$1,000.00	EA	21	**$21,000**	
49	Relocate Main Water Valve	$12,200.00	EA	1	**$12,200**	Along Redhill, NW of intersection
50	Relocate Utility Vault	$10,000.00	EA	1	**$10,000**	
51	Adjust Manhole to Grade	$1,500.00	EA	0	**$0**	
52	Adjust Water Meter	$1,000.00	EA	2	**$2,000**	
53	Adjust Water Valve	$1,000.00	EA	2	**$2,000**	
54	Adjust Minor Above Ground Utilities	$1,000.00	EA	0	**$0**	
55	Construct Striping & Marking	$2.00	LF	0	**$0**	
56	Construct Storm Drain Main	$122.00	LF	0	**$0**	
57	Construct RCB	$549.00	CY	0	**$0**	
58	Construct Channel (Earthen)	$12.20	LF	0	**$0**	
59	Construct Concrete V-Ditch	$19.00	LF	0	**$0**	
60	Construct Bridge Widening	$500.00	SF	0	**$0**	
	UTILITIES AND DRAINAGE SUBTOTAL				**$226,720**	
	GENERAL					
61	Mobilization	$22,672	LS	1	**$124,613**	
62	Traffic Control	8%	LS	1	**$99,691**	
63	Utility Relocation	5%	LS	1	**$62,307**	
64	SWPPP Plan and Implementation	6%	LS	1	**$74,768**	
	CONSTRUCTION SUBTOTAL				**$1,607,512**	
	RIGHT-OF-WAY					
65	Right-Of-Way	$70.00	SF	5875	**$411,250**	
66	Parking Impacts	$20,000.00	EA	0	**$0**	
67	Temporary Construction Easements	$6.50	SF	5750	**$37,375**	
68	Right-of-Way Management	10%	LS	1	**$44,863**	
	RIGHT-OF-WAY SUBTOTAL				**$493,488**	
TOTAL CONSTRUCTION & RIGHT-OF-WAY COST:					**$2,100,999**	
Preliminary Project Development (10% Construction Cost, min $300,000)					**$300,000**	
Design Engineering/Administration Cost (15% Construction Cost)					**$241,127**	
Construction Engineering Costs/Administration (15% Construction Cost)					**$241,127**	
Contingency (20% Construction Cost)					**$321,502**	
TOTAL PROJECT COSTS (Red Hill & Alton)					**$3,204,755**	
Traffic Signal at Alton & Daimler					**$680,000**	Includes all soft costs
Traffic Signal at Alton & Halladay					**$800,000**	Includes all soft costs
Alton/55 Overcrossing Project (cost includes widening of Halladay/Alton intersection; all cost in 2016 $)					**$55,500,000**	
TOTAL ALTON/55 PROJECT COSTS					**$60,184,755**	

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PS&E COST ESTIMATE - 100% PS&E ROADWAY
ALTON PARKWAY OVERCROSSING
ITEM AND QUANTITY LIST

March 31, 2014
EA 12-005501
Project ID# 12-0000-0003

COMBINED ESTIMATE

Item	Item Code	P/F/S	Item Description	Unit	Actual Quantity	Rounded Quantity	Unit Price	Amount
1	020215		TEMPORARY CRASH CUSHION (TYPE ADIEM)	EA	2.00	2	$30,175	$60,400
2	070012		PROGRESS SCHEDULE (CRITICAL PATH METHOD)	LS	1.00	1	$17,000	$17,000
3	070018		TIME-RELATED OVERHEAD	WDAY	325.00	325	$3,400	$1,105,000
4	074016		CONSTRUCTION SITE MANAGEMENT	LS	1.00	1	$81,600	$81,600
5	074019		PREPARE STORM WATER POLLUTION PREVENTION PLAN	LS	1.00	1	$11,050	$11,100
6	074029		TEMPORARY SILT FENCE	LF	3664.00	3,664	$4	$14,900
7	074033		TEMPORARY CONSTRUCTION ENTRANCE	EA	4.00	4	$5,100	$20,400
8	074038		TEMPORARY DRAINAGE INLET PROTECTION	EA	6.00	6	$357	$2,100
9	074041		STREET SWEEPING	LS	1.00	1	$85,000	$85,000
10	074042		TEMPORARY CONCRETE WASHOUT (PORTABLE)	LS	1.00	1	$3,400	$3,400
11	074056		RAIN EVENT ACTION PLAN	EA	35.30	36	$850	$30,600
12	074057		STORM WATER ANNUAL REPORT	EA	1.00	1	$3,400	$3,400
13	074058		STORM WATER SAMPLING AND ANALYSIS DAY	DAY	15.50	16	$1,950	$31,200
14	120090	S	CONSTRUCTION AREA SIGNS	LS	1.00	1	$42,500	$42,500
15	120100	S	TRAFFIC CONTROL SYSTEM	LS	1.00	1	$221,000	$221,000
16	128650	S	PORTABLE CHANGEABLE MESSAGE SIGN	LS	1.00	1	$127,500	$127,500
17	120149		TEMPORARY PAVEMENT MARKING (PAINT)	SF	66.00	66	$4	$300
18	120159		TEMPORARY TRAFFIC STRIPE (PAINT)	LF	30326.26	30,327	$1	$25,800
19	120300		TEMPORARY PAVEMENT MARKER	EA	3634.57	3,635	$9	$32,400
20	129000		TEMPORARY RAILING (TYPE K)	LF	3940.00	3,940	$26	$100,500
21	129100		TEMPORARY CRASH CUSHION MODULE	EA	56.00	56	$595	$33,300
22	129150		TEMPORARY TRAFFIC SCREEN	LF	3940.00	3,940	$7	$28,500
23	141101		REMOVE YELLOW PAINTED TRAFFIC STRIPE (HAZARDOUS WASTE)	LF	32244.10	32,245	$1	$46,600
24	141103		REMOVE YELLOW THERMOPLASTIC TRAFFIC STRIPE (HAZARDOUS WASTE)	LF	1917.85	1,918	$3	$5,200
25	150608		REMOVE CHAIN LINK FENCE	LF	180.00	180	$10	$1,800
26	150662		REMOVE METAL BEAM GUARD RAILING	LF	1287.50	1,288	$14	$18,000
27	150717		REMOVE TRAFFIC STRIPE AND PAVEMENT MARKING	SQFT	99.00	99	$3	$300
28	150722		REMOVE PAVEMENT MARKER	EA	5552.40	5,553	$2	$12,300
29	150771		REMOVE ASPHALT CONCRETE DIKE	LF	559.65	560	$4	$2,500
30	150860		REMOVE BASE AND SURFACING	CY	2522.30	2,523	$34	$85,800
31	152387		RELOCATE ROADSIDE SIGN-TWO POST	EA	2.00	2	$1,615	$3,200
32	153221		REMOVE CONCRETE BARRIER	LF	176.07	177	$36	$6,300
33	160101	P	CLEARING AND GRUBBING	LS	1.00	1	$102,000	$102,000
34	170101	P	DEVELOP WATER SUPPLY	LS	1.00	1	$170,000	$170,000
35	190101		ROADWAY EXCAVATION	CY	1532.01	1,533	$43	$65,200
36	190107		ROADWAY EXCAVATION (TYPE Y-1) (AERIALLY DEPOSITED LEAD)	CY	1532.01	1,533	$31	$46,900
37	190110		LEAD COMPLIANCE PLAN	LS	1.00	1	$8,500	$8,500

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PS&E COST ESTIMATE - 100% PS&E ROADWAY
ALTON PARKWAY OVERCROSSING
ITEM AND QUANTITY LIST

March 31, 2014
EA 12-005501
Project ID# 12-0000-0003

COMBINED ESTIMATE

Item	Item Code	P/F/S	Item Description	Unit	Actual Quantity	Rounded Quantity	Unit Price	Amount
38	192003	F	STRUCTURE EXCAVATION (BRIDGE)	CY	478.00	478	$179	$85,300
39	192020		STRUCTURE EXCAVATION (TYPE D)	CY	382.00	382	$187	$71,400
40	193003	F	STRUCTURE BACKFILL (BRIDGE)	CY	1053.00	1,053	$128	$134,300
41	203031		EROSION CONTROL (HYDROSEED)	SF	65694.00	65,694	$1	$55,800
42	204099	S	PLANT ESTABLISHMENT WORK	LS	1.00	1	$17,000	$17,000
43	250201		CLASS 2 AGGREGATE SUBBASE	CY	1364.95	1,365	$44	$60,300
44	390132		HOT MIX ASPHALT (TYPE A)	TON	2860.82	2,861	$213	$608,000
45	390137		RUBBERIZED ASPHALT CONCRETE (TYPE G)	TON	133.36	134	$272	$36,400
46	394046		PLACE ASPHALT CONCRETE DIKE (TYPE D)	LF	559.65	560	$83	$46,600
47	490780		FURNISH PILING (CLASS 200)	LF	7594.00	7,594	$39	$296,900
48	490781		DRIVE PILE (CLASS 200)	EA	138.00	138	$3,400	$469,200
49	500001		PRESTRESSING STEEL	LS	1.00	1	$425,000	$425,000
50	510051	F	STRUCTURAL CONCRETE, BRIDGE FOOTING	CY	374.00	374	$782	$292,500
51	510053	F	STRUCTURAL CONCRETE, BRIDGE	CY	2892.00	2,892	$1,258	$3,638,100
52	510086		STRUCTURAL CONCRETE, APPROACH SLAB (TYPE N)	CY	200.00	200	$952	$190,400
53	519100		JOINT SEAL (MR = 2")	LF	180.00	180	$145	$26,000
54	520102	F/S	BAR REINFORCING STEEL (BRIDGE)	LB	703608.00	703,608	$2	$1,196,100
55	560203		FURNISH SIGN STRUCTURE (BRIDGE MOUNTED WITH WALKWAY)	LB	3735.00	3,735	$12	$44,400
56	560204		INSTALL SIGN STRUCTURE (BRIDGE MOUNTED WITH WALKWAY)	LB	3735.00	3,735	$9	$31,700
57	566011		ROADSIDE SIGN - ONE POST	EA	31.00	31	$553	$17,100
58	800360		CHAIN LINK FENCE (TYPE CL-6)	LF	81.98	82	$37	$3,100
59	802501		4' CHAIN LINK GATE (TYPE CL-6)	EA	1.00	1	$1,870	$1,900
60	820134		OBJECT MARKER (TYPE P)	EA	12.00	12	$136	$1,600
61	832003		METAL BEAM GUARD RAILING (WOOD POST)	LF	1422.29	1,423	$85	$121,000
62	833032	F/S	CHAIN LINK RAILING (TYPE 7)	LF	663.00	663	$105	$69,900
63	833088		TUBULAR HANDRAILING	LF	120.00	120	$122	$14,700
64	833142	F	CONCRETE BARRIER (TYPE 26 MOD)	LF	783.00	783	$221	$173,000
65	839585		ALTERNATIVE FLARED TERMINAL SYSTEM	EA	1.00	1	$4,420	$4,400
66	839705		CONCRETE BARRIER (TYPE 60E)	LF	315.76	316	$306	$96,700
67	840501	S	THERMOPLASTIC TRAFFIC STRIPE	LF	5112.23	5,113	$1	$6,100
68	840515	S	THERMOPLASTIC PAVEMENT MARKING	SF	132.00	132	$6	$800
69	840656	S	PAINT TRAFFIC STRIPE (2-COAT)	LF	40286.47	40,287	$0	$9,600
70	850101	S	PAVEMENT MARKER (NON-REFLECTIVE)	EA	3882.24	3,883	$3	$13,200
71	850111	S	PAVEMENT MARKER (RETROREFLECTIVE)	EA	2090.55	2,091	$7	$14,200
72	860090		MAINTAINING EXISTING TRAFFIC MANAGEMENT SYSTEM ELEMENTS DURING CONSTRUCTION	LS	1.00	1	$34,000	$34,000
73	860460		LIGHTING AND SIGN ILLUMIATION	LS	1.00	1	$64,600	$64,600

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PS&E COST ESTIMATE - 100% PS&E ROADWAY
ALTON PARKWAY OVERCROSSING
ITEM AND QUANTITY LIST

March 31, 2014
EA 12-005501
Project ID# 12-0000-0003

COMBINED ESTIMATE

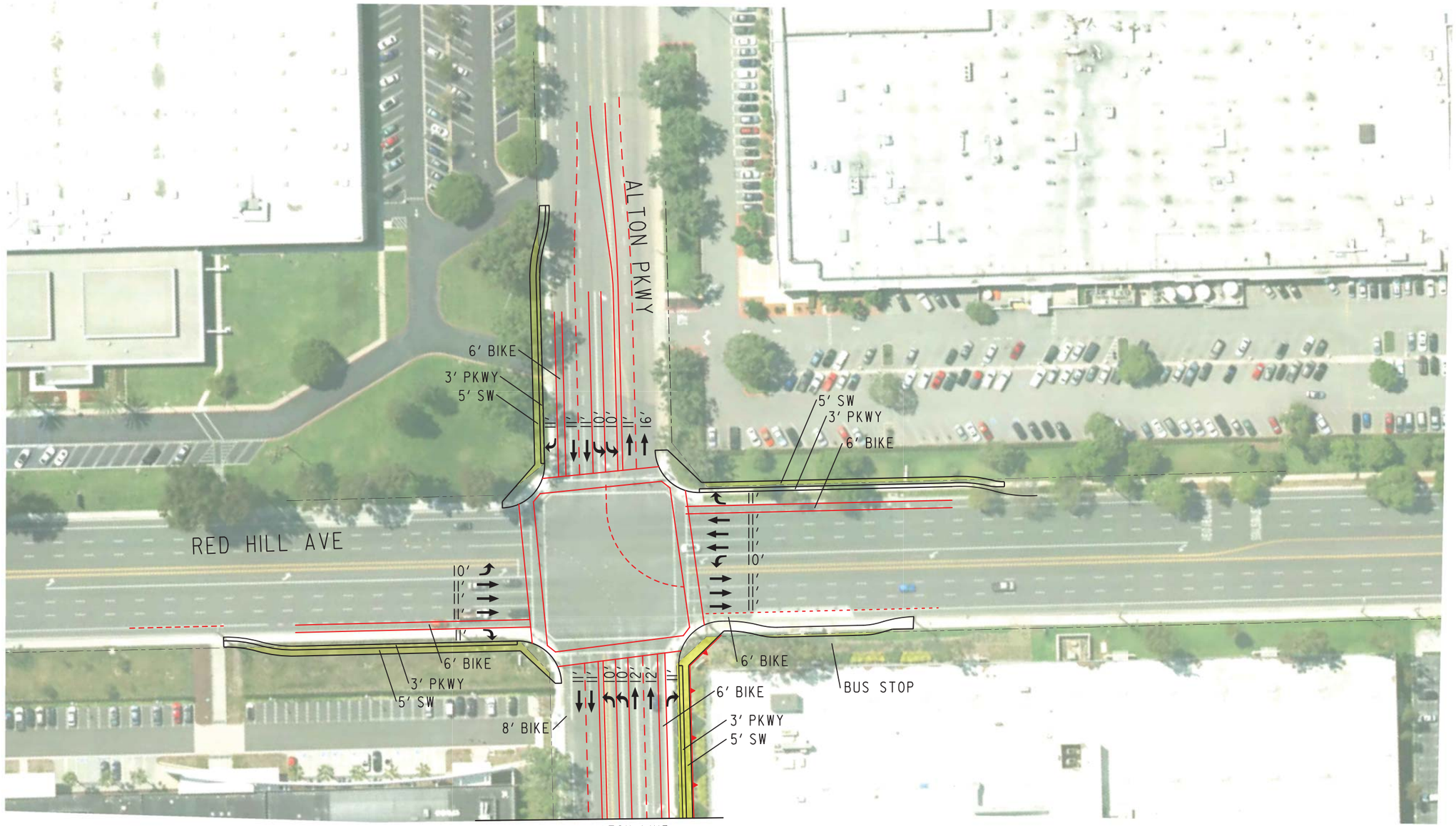
Item	Item Code	P/F/S	Item Description	Unit	Actual Quantity	Rounded Quantity	Unit Price	Amount
74	860930		TRAFFIC MONITORING STATION	LS	1.00	1	$56,100	$56,100
75	861100		RAMP METER SYSTEM	LS	1.00	1	$15,300	$15,300
76	999990		MOBILIZATION	LS	1.00	1	10%	$1,226,000
			SUBTOTAL					**$12,321,200**

SUPPLEMENTAL WORK AND CITY FURNISHED MATERIAL

Item	Item Code	P/F/S	Item Description	Unit	Actual Quantity	Rounded Quantity	Unit Price	Amount
77	066062		COZEEP CONTRACT	LS	1	1	$102,000.00	$102,000
78	066063		TRAFFIC MANAGEMENT PLAN & PUBLIC INFORMATION	LS	1	1	$51,000.00	$51,000
79	066070		MAINTAINING TRAFFIC	LS	1	1	$59,500.00	$59,500
80	066595		WATER POLLUTION CONTROL MAINTENANCE SHARING	LS	1	1	$17,000.00	$17,000
81	066596		ADDITIONAL WATER POLLUTION CONTROL	LS	1	1	$13,600.00	$13,600
82	066597		STORM WATER SAMPLING AND ANALYSIS	LS	1	1	$8,500.00	$8,500
83	066600		DISPOSAL OF YELLOW PAINTED TRAFFIC STRIPE	LS	1	1	$17,000.00	$17,000
84	066610		PARTNERING	LS	1	1	$34,000.00	$34,000
85	066666		COMPENSATION ADJUSTMENT FOR PRICE INDEX FLUCTUATIONS OF PAVING ASPHALT	LS	1	1	$51,000.00	$51,000
86			LOCAL ASSISTANCE (CITIES)	LS	1	1	$34,000.00	$34,000
			SUBTOTAL					**$387,600**

NET SUBTOTAL	$12,700,000
CONTINGENCIES (10%)	$1,300,000
TOTAL (Caltrans)	**$14,000,000**
Total (Street from separate file)	**$10,400,000**
Hazardous Material Removal	**$8,000,000**
Right of Way	**$22,500,000**
Design Cost (Update PS&E and Revalidation)	**$600,000**
GRAND TOTAL	**$55,500,000**

Concept plans for Alton Overcrossing at SR-55 was not developed as part of the IBC Fee Study. The concept remains the same as was developed as part of "Updated Traffic Study for Alton Avenue Overcrossing at State Route 55 Freeway and Arterial Widening in the Cities of Santa Ana and Irvine, May 2010"



LEGEND

- (S) SIGNALIZED INTERSECTION
- → DIRECTION OF TRAVEL
- PROPOSED ROW
- XX' PROPOSED LANE WIDTH
- PROPOSED RETAINING WALL

MITIGATIONS - IRVINE INTERSECTION 44

1. ADD 1 NBR
2. ADD 1 SBR
3. ADD 2ND EBL
4. ADD 2ND WBT

IRVINE INTERSECTION 44
RED HILL AVE & ALTON PKWY
SHEET 1 OF 2

DECEMBER, 2016

CITY OF IRVINE 1971

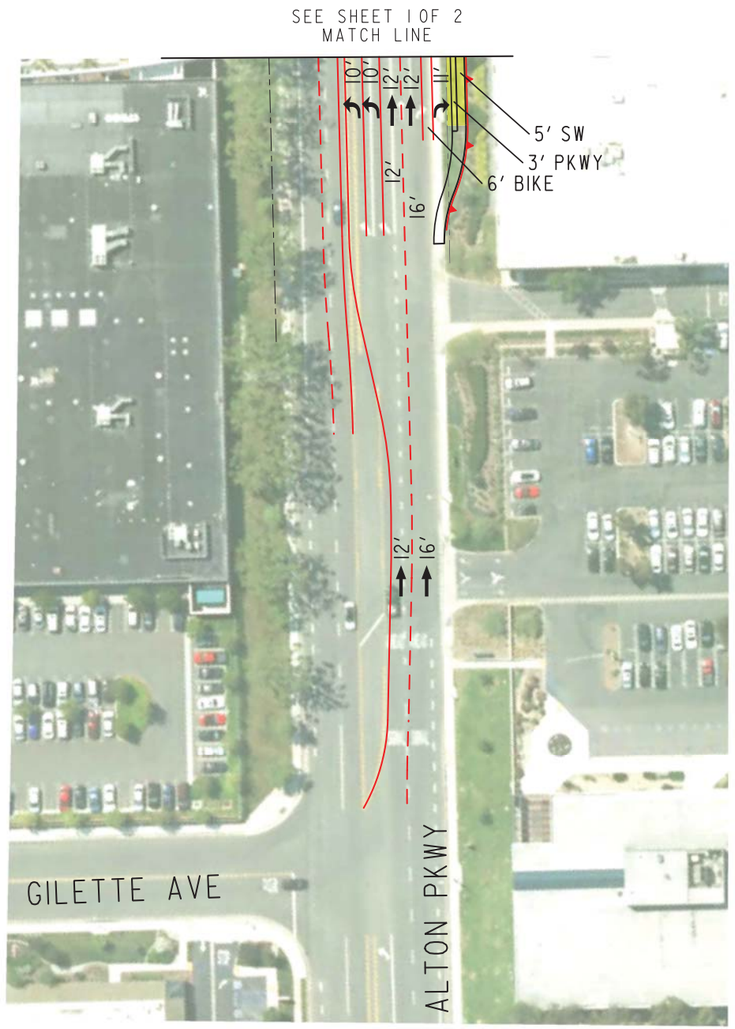
PLAN PREPARED BY: HDR

2015 IBC NEXUS STUDY
ROADWAY IMPROVEMENTS

CITY OF IRVINE
COMMUNITY DEVELOPMENT

PATH =
DWG =
VIEW =

SHEET REVISED: 8/15/07



LEGEND

- (S) SIGNALIZED INTERSECTION
- → DIRECTION OF TRAVEL
- PROPOSED ROW
- XX' PROPOSED LANE WIDTH

MITIGATIONS - IRVINE INTERSECTION 44

1. ADD 1 NBR
2. ADD 1 SBR
3. ADD 2ND EBL
4. ADD 2ND WBT

IRVINE INTERSECTION 44
RED HILL AVE & ALTON PKWY
SHEET 2 OF 2

SEPTEMBER 14, 2016

PLAN PREPARED BY:

2015 IBC NEXUS STUDY
ROADWAY IMPROVEMENTS

CITY OF IRVINE
COMMUNITY DEVELOPMENT

PATH =
DWG =
VIEW =

SHEET REVISED: 8/15/07

Dyer Road widening between SR-55 NB on-ramp and Red Hill Avenue (Phase 2)

Irvine IBC - Nexus Study

Cost Estimate

Intersection
Dyer Rd & SR-55
Mitigations: Dyer Rd widening from SR-55 to Red Hill

ITEM #	DESCRIPTION OF WORK	UNIT PRICE	UNIT	QUANTITY	COST	NOTES
	ROADWAY					
1	Clear & Grub	$12,200.00	AC	3.52	**$42,940**	Original area + 2-6' bike lanes
2	Earthwork	$46.00	CY	6500	**$299,000**	116,500 sf x 1.5' deep/27 = 6,500 CY
3	Remove Curb & Gutter	$24.00	LF	4830	**$115,920**	
4	Remove Median Curb	$30.00	LF	0	**$0**	
5	Remove PCC Sidewalk	$5.00	SF	36975	**$184,875**	
6	Remove Pavement	$5.00	SF	5750	**$28,750**	1' sawcut (AC) and 750 SF (PCC)
7	Remove Channel	$40.00	LF	0	**$0**	
8	Remove/Replace Chain Link Fence	$35.00	LF	0	**$0**	
9	Reconstruct Metal Beam Guard Rail	$40.00	LF	0	**$0**	
10	Remove & Replace Tree	$1,500.00	EA	64	**$96,000**	
11	Modify Driveway	$6,100.00	EA	15	**$91,500**	
12	Construct PCC Pavement	$14.00	SF	750	**$10,500**	Bus Stop Pad
13	Construct AC Pavement	$8.00	SF	70000	**$560,000**	
14	Construct AC Overlay	$3.60	SF	0	**$0**	
15	Construct Slurry Seal	$0.40	SF	0	**$0**	
16	Construct AC Dike	$15.00	LF	270	**$4,050**	
17	Construct Curb & Gutter	$30.00	LF	4815	**$144,450**	
18	Construct Concrete Barrier	$80.00	LF	0	**$0**	
19	Construct Median Curb	$31.00	LF	0	**$0**	
20	Construct Median Concrete	$15.00	SF	0	**$0**	
21	Construct Median/Parkway Landscaping	$13.00	SF	22500	**$292,500**	Includes new irrigation, Excludes Ex irrigation util box relocation
22	Construct PCC Sidewalk	$9.05	SF	46400	**$419,920**	
23	Construct Wheelchair Ramp	$6,000.00	EA	9	**$54,000**	
24	Construct Retaining Wall	$75.00	SF	1200	**$90,000**	assume 3'(4'H) x 300 LF wall at toe.
25	Remove Retaining Wall	$35.00	SF	0	**$0**	
26	Relocate Monument Wall	$20,000.00	EA	0	**$0**	
27	Sawcut	$4.00	LF	5000	**$20,000**	
	ROADWAY SUBTOTAL				**$2,454,405**	
	TRAFFIC					
28	Remove Striping	$3.00	LF	844	**$2,532**	
29	Remove Pavement Markings	$150.00	EA	12	**$1,800**	
30	Relocate Street Light	$6,200.00	EA	19	**$117,800**	includes 5 new on so side east of tracks
31	Modify Traffic Signal	$325,000.00	EA	2	**$650,000**	1 full and 2 partials
32	New Traffic Signal	$425,000.00	EA	0	**$0**	
33	Install Striping	$5.00	LF	9200	**$46,000**	
34	Install Pavement Markings	$350.00	EA	25	**$8,750**	
35	Relocate Freeway Sign (2 post)	$700.00	EA	0	**$0**	
36	Loop Detector	$2,000.00	EA	21	**$42,000**	video detection at Barranca/Redhill
37	Remove Roadside Sign	$150.00	EA	1	**$150**	
38	Relocate Sign (1 post)	$220.00	EA	58	**$12,760**	
39	Overhead Sign (2 posts)	$240,000.00	EA	0	**$0**	
40	Relocate Commercial Sign	$3,000.00	EA	4	**$12,000**	
41	Relocate Bus Bench	$1,458.00	EA	3	**$4,374**	1 stop counted as 2 because of canopy
42	Install Ramp Metering System	$80,000.00	EA	0	**$0**	
43	Install Delineator	$36.60	EA	0	**$0**	
44	Apply ATMS	$113,165.00	LS	0	**$0**	
45	Railroad Signal, panels and coordination		LS	1	**$1,500,000**	
	TRAFFIC SUBTOTAL				**$2,398,166**	
	UTILITIES AND DRAINAGE					
46	Relocate Call Box	$2,051.00	EA	0	**$0**	
47	Relocate Power Pole	$25,000.00	EA	2	**$50,000**	
48	Relocate Catch Basin	$9,760.00	EA	5	**$48,800**	1 large CB counted as 2
49	Relocate Fire Hydrant	$5,000.00	EA	8	**$40,000**	
50	Relocate Utility Boxes	$1,000.00	EA	64	**$64,000**	
51	Relocate Main Water Valve	$12,200.00	EA	6	**$73,200**	
52	Relocate Utility Vault	$10,000.00	EA	4	**$40,000**	
53	Adjust Manhole to Grade	$1,500.00	EA	8	**$12,000**	
54	Adjust Water Meter	$1,000.00	EA	10	**$10,000**	
55	Adjust Water Valve	$1,000.00	EA	9	**$9,000**	
56	Adjust Minor Above Ground Utilities	$1,000.00	EA	15	**$15,000**	
57	Construct Striping & Marking	$2.00	LF	0	**$0**	
58	Construct Storm Drain Main	$122.00	LF	0	**$0**	
59	Parkway Drain	$1,000.00	$EA	1	**$1,000**	
60	Construct RCB	$549.00	CY	0	**$0**	
61	Construct Channel (Earthen)	$12.20	LF	0	**$0**	
62	Construct Concrete V-Ditch	$19.00	LF	0	**$0**	
63	Construct Bridge Widening	$500.00	SF	0	**$0**	
	UTILITIES AND DRAINAGE SUBTOTAL				**$363,000**	
	GENERAL					
63	Mobilization	$36,300	LS	1	**$521,557**	
64	Utility Relocation	5%	LS	1	**$260,779**	
65	Traffic Control	8%	LS	1	**$417,246**	
66	SWPPP Plan and Implementation	6%	LS	1	**$312,934**	
	CONSTRUCTION SUBTOTAL				**$6,728,087**	
	RIGHT-OF-WAY					
67	Right-Of-Way	$70.00	SF	135112	**$9,457,859**	
68	Building Demolition	$1,000,000.00	EA	3	**$3,000,000**	1 per full take
69	Parking Impacts	$20,000.00	EA	18	**$360,000**	
70	Temporary Construction Easements	$6.50	SF	20520	**$133,380**	
71	Right-of-Way Management	10%	LS	1	**$1,295,124**	
	RIGHT-OF-WAY SUBTOTAL				**$14,246,363**	
TOTAL CONSTRUCTION & RIGHT-OF-WAY COST:					**$20,974,449**	
Preliminary Project Development (10% Construction Cost, min $300,000)					**$672,809**	
Design Engineering/Administration Cost (15% Construction Cost)					**$1,009,213**	
Construction Engineering Costs/Administration (15% Construction Cost)					**$1,009,213**	
Contingency (20% Construction Cost)					**$1,345,617**	
TOTAL PROJECT COSTS					**$25,011,301**	

LEGEND

- (S) SIGNALIZED INTERSECTION
- → DIRECTION OF TRAVEL
- PROPOSED ROW
- XX' PROPOSED LANE WIDTH
- PROPOSED RETAINING WALL

MITIGATIONS - SANTA ANA INTERSECTION

(1) DYER RD WIDENING - RED HILL TO SR-55
(CONSISTENT WITH PROJECT REPORT DATED MAY 2004)

SANTA ANA INTERSECTION
SR-55 & DYER RD
SHEET 1 OF 3

DECEMBER, 2016

CITY OF IRVINE 1971

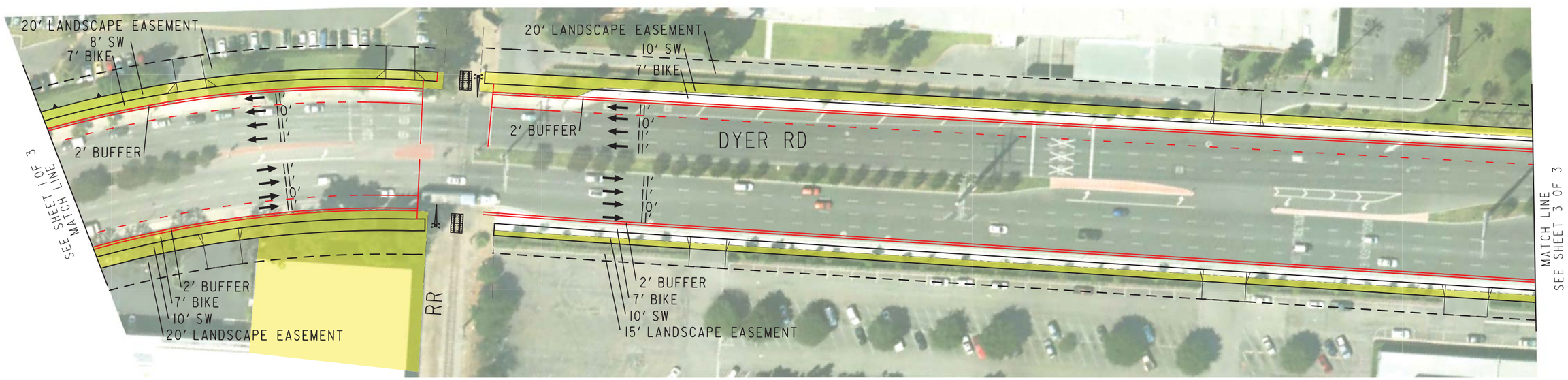
PLAN PREPARED BY: HDR

2015 IBC NEXUS STUDY
ROADWAY IMPROVEMENTS

CITY OF IRVINE
COMMUNITY DEVELOPMENT

PATH =
DWG =
VIEW =

SHEET REVISED: 8/15/07



SANTA ANA INTERSECTION
SR-55 & DYER RD
SHEET 2 OF 3

LEGEND

- (S) SIGNALIZED INTERSECTION
- → DIRECTION OF TRAVEL
- PROPOSED ROW
- XX' PROPOSED LANE WIDTH
- PROPOSED RETAINING WALL

MITIGATIONS - SANTA ANA INTERSECTION

(1) DYER RD WIDENING - RED HILL TO SR-55
(CONSISTENT WITH PROJECT REPORT DATED MAY 2004)

DECEMBER, 2016

CITY OF IRVINE 1971

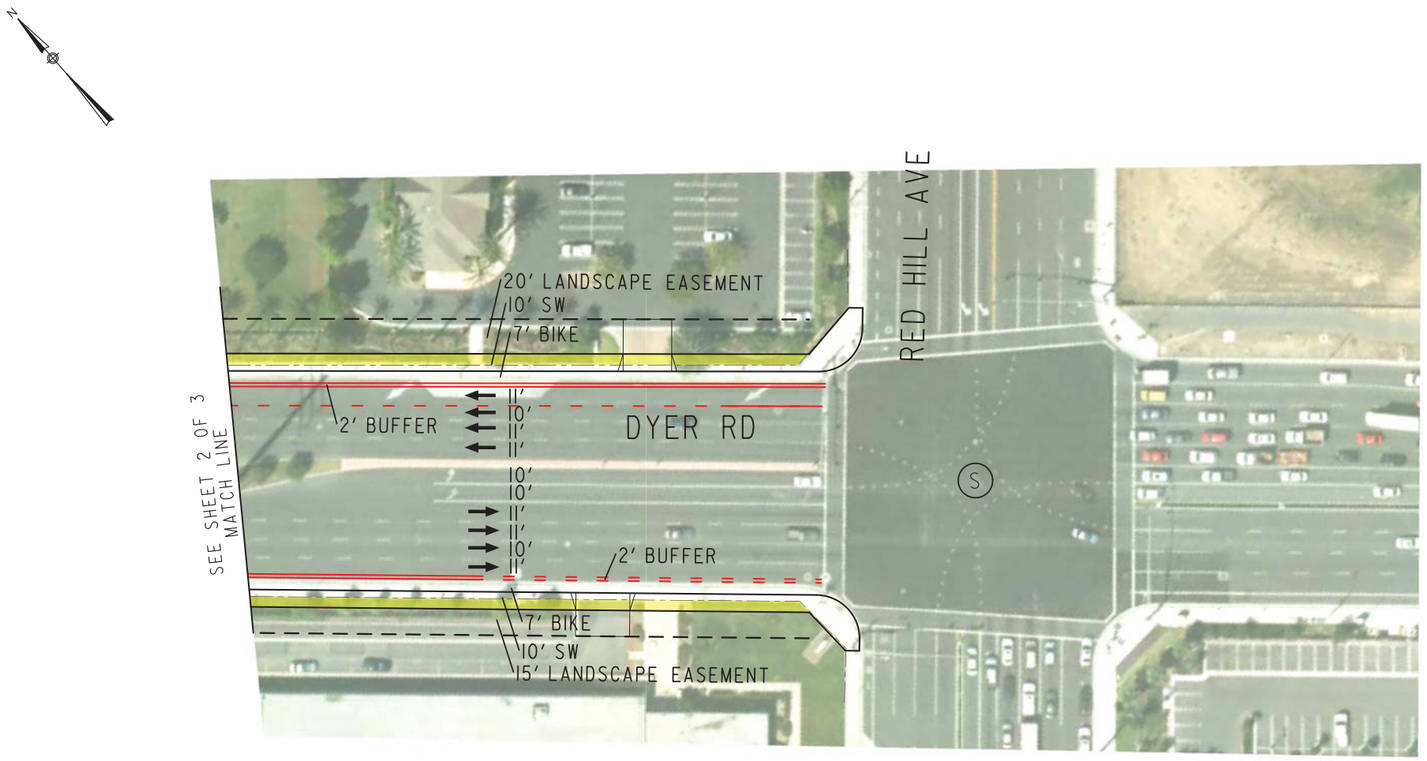
PLAN PREPARED BY: HDR

2015 IBC NEXUS STUDY
ROADWAY IMPROVEMENTS

CITY OF IRVINE
COMMUNITY DEVELOPMENT

VIEW = DWG = PATH =

SHEET REVISED: 8/15/07



SANTA ANA INTERSECTION
SR-55 & DYER RD
SHEET 3 OF 3

LEGEND

- (S) SIGNALIZED INTERSECTION
- → DIRECTION OF TRAVEL
- PROPOSED ROW
- XX' PROPOSED LANE WIDTH

MITIGATIONS - SANTA ANA INTERSECTION

(1) DYER RD WIDENING - RED HILL TO SR-55
(CONSISTENT WITH PROJECT REPORT DATED MAY 2004)

DECEMBER, 2016

PLAN PREPARED BY:

2015 IBC NEXUS STUDY
ROADWAY IMPROVEMENTS

CITY OF IRVINE
COMMUNITY DEVELOPMENT

VIEW = DWG = PATH =

SHEET REVISED: 8/15/07

Flower Street and Segerstrom Avenue

Note: Concepts were not developed for the 2015 IBC Fee Update at this location since it is consistent with 2010 IBC Fee Study

Irvine IBC - Nexus Study

Cost Estimate

Intersection 719
Flower St & Segerstrom Ave
Mitigations: Add EB Defacto Lane

ITEM #	DESCRIPTION OF WORK	UNIT PRICE	UNIT	QUANTITY	COST	NOTES
	ROADWAY					
1	Clear & Grub	$12,200.00	AC	0.10	**$1,220**	
2	Earthwork	$46.00	CY	66	**$3,036**	
3	Remove Curb & Gutter	$24.00	LF	0	**$0**	
4	Remove Median Curb	$30.00	LF	280	**$8,400**	
5	Remove PCC Sidewalk	$5.00	SF	1890	**$9,450**	
6	Remove Pavement	$5.00	SF	560	**$2,800**	
7	Remove Channel	$40.00	LF	0	**$0**	
8	Remove/Replace Chain Link Fence	$35.00	LF	0	**$0**	
9	Remove and Replace Pedestal and Wrought Iron Fence	$75.00	LF	0	**$0**	
10	Remove and Replace Vinyl Fence	$40.00	LF	0	**$0**	
11	Reconstruct Metal Beam Guard Rail	$40.00	LF	0	**$0**	
12	Remove & Replace Tree	$1,500.00	EA	4	**$6,000**	
13	Modify Driveway	$6,100.00	EA	0	**$0**	
14	Construct PCC Pavement	$14.00	SF	1120	**$15,680**	
15	Construct AC Pavement	$8.00	SF	1780	**$14,240**	
16	Construct AC Overlay	$3.60	SF	0	**$0**	
17	Construct Slurry Seal	$0.40	SF	0	**$0**	
18	Construct AC Dike	$15.00	LF	0	**$0**	
19	Construct Curb & Gutter	$30.00	LF	270	**$8,100**	
20	Construct Concrete Barrier	$80.00	LF	0	**$0**	
21	Construct Median Curb	$31.00	LF	0	**$0**	
22	Construct Median Concrete	$15.00	SF	0	**$0**	
23	Construct Median/Parkway Landscaping	$13.00	SF	0	**$0**	
24	Construct PCC Sidewalk	$9.05	SF	2090	**$18,915**	
25	Construct Wheelchair Ramp	$6,000.00	EA	1	**$6,000**	
26	Construct Retaining Wall	$75.00	SF	0	**$0**	
27	Remove Retaining Wall	$35.00	SF	0	**$0**	
28	Relocate Monument Wall	$20,000.00	EA	0	**$0**	
29	Sawcut	$4.00	LF	290	**$1,160**	
	ROADWAY SUBTOTAL				**$95,001**	
	TRAFFIC					
30	Remove Striping	$3.00	LF	0	**$0**	
31	Remove Pavement Markings	$150.00	EA	0	**$0**	
32	Relocate Street Light	$6,200.00	EA	1	**$6,200**	
33	Modify Traffic Signal	$325,000.00	EA	0.25	**$81,250**	
34	New Traffic Signal	$425,000.00	EA	0	**$0**	
35	Install Striping	$5.00	LF	0	**$0**	
36	Install Pavement Markings	$350.00	EA	0	**$0**	
37	Relocate Freeway Sign (2 post)	$700.00	EA	0	**$0**	
38	Loop Detector	$2,000.00	EA	0	**$0**	
39	Remove Roadside Sign	$150.00	EA	0	**$0**	
40	Relocate Sign (1 post)	$220.00	EA	1	**$220**	
41	Overhead Sign (2 posts)	$240,000.00	EA	0	**$0**	
42	Relocate Bus Bench	$1,458.00	EA	1	**$1,458**	
43	Relocate Automatic Gate	$10,000.00	EA	0	**$0**	
44	Install Ramp Metering System	$80,000.00	EA	0	**$0**	
45	Install Delineator	$36.60	EA	0	**$0**	
46	Apply ATMS	$113,165.00	LS	0	**$0**	
	TRAFFIC SUBTOTAL				**$89,128**	
	UTILITIES AND DRAINAGE					
47	Relocate Call Box	$2,051.00	EA	0	**$0**	
48	Relocate Power Pole	$25,000.00	EA	0	**$0**	
49	Relocate Catch Basin	$9,760.00	EA	0	**$0**	
50	Relocate Fire Hydrant	$5,000.00	EA	0	**$0**	
51	Relocate Utility Boxes	$1,000.00	EA	1	**$1,000**	
52	Relocate Main Water Valve	$12,200.00	EA	0	**$0**	
53	Relocate Utility Vault	$10,000.00	EA	0	**$0**	
54	Adjust Manhole to Grade	$1,500.00	EA	0	**$0**	
55	Adjust Water Meter	$1,000.00	EA	0	**$0**	
56	Adjust Water Valve	$1,000.00	EA	0	**$0**	
57	Adjust Minor Above Ground Utilities	$1,000.00	EA	0	**$0**	
58	Construct Striping & Marking	$2.00	LF	0	**$0**	
59	Construct Storm Drain Main	$122.00	LF	0	**$0**	
60	Construct RCB	$549.00	CY	0	**$0**	
61	Construct Channel (Earthen)	$12.20	LF	0	**$0**	
62	Construct Concrete V-Ditch	$19.00	LF	0	**$0**	
63	Construct Bridge Widening	$500.00	SF	0	**$0**	
	UTILITIES AND DRAINAGE SUBTOTAL				**$1,000**	
	GENERAL					
64	Mobilization	10%	LS	1	**$18,513**	
65	Traffic Control	8%	LS	1	**$14,810**	
66	Utility Relocations	5%	LS	1	**$9,256**	
67	SWPPP Plan and Implementation	6%	LS	1	**$11,108**	
	CONSTRUCTION SUBTOTAL				**$238,816**	
	RIGHT-OF-WAY					
68	Right-Of-Way	$70.00	SF	700	**$49,000**	
69	Parking Impacts	$20,000.00	EA	0	**$0**	
70	Temporary Construction Easements	$6.50	SF	0	**$0**	
71	Right-of-Way Management	10%	LS	0	**$4,900**	
	RIGHT-OF-WAY SUBTOTAL				**$53,900**	
TOTAL CONSTRUCTION & RIGHT-OF-WAY COST:					**$292,716**	
Preliminary Project Development (10% Construction Cost, min $300,000)					**$300,000**	
Design Engineering/Administration Cost (15% Construction Cost)					**$35,822**	
Construction Engineering Costs/Administration (15% Construction Cost)					**$35,822**	
Contingency (20% Construction Cost)					**$47,763**	
TOTAL PROJECT COSTS					**$712,124**	

LEGEND

- CENTERLINE
- RIGHT OF WAY TAKE
- RIGHT OF WAY
- RETAINING WALL

MITIGATION:
+ ADD EB DE FACTO RIGHT TURN LANE

SANTA ANA - INTERSECTION 719
FLOWER STREET AND SEGERSTROM AVENUE

Source: Irvine Business Complex, Vision Plan Traffic Fee Nexus Study, 2010

$$$$$$SYTIME$$$$$
DGN$PECH$$$$$$$$$$$$$$$$$$
carbajal

City of Costa Mesa

City of Costa Mesa List of Improvements and Associated Costs

Jurisdiction	Int ID	Intersection / Arterial Location	Improvement Strategy					Fair Share %	Total Cost to IBC Fee
				Construction Subtotal	ROW Subtotal	Contingency Cost*	Total		
Costa Mesa	10	SR-55 Frontage Road SB Ramps at Paularino	Improve Southbound to 1.5 Left, 1.5 Through, 1 Right.	$585,227	$29,260	$592,613	$1,207,101	2.4%	$28,970
								TOTAL	$28,970

*Contingency cost includes:

- Preliminary Project Development Cost (10% Construction Cost, minimum $300,000)
- Design Engineering/Administration Cost (15% Construction Cost)
- Construction Engineering Cost/Administration (15% Construction Cost)
- Contingency (20% Construction Cost)

10 - SR-55 Frontage Road SB Ramps at Paularino

Note: Concepts were not developed for the 2015 IBC Fee Update at this location since it is consistent with 2010 IBC Fee Study

Irvine IBC - Nexus Study

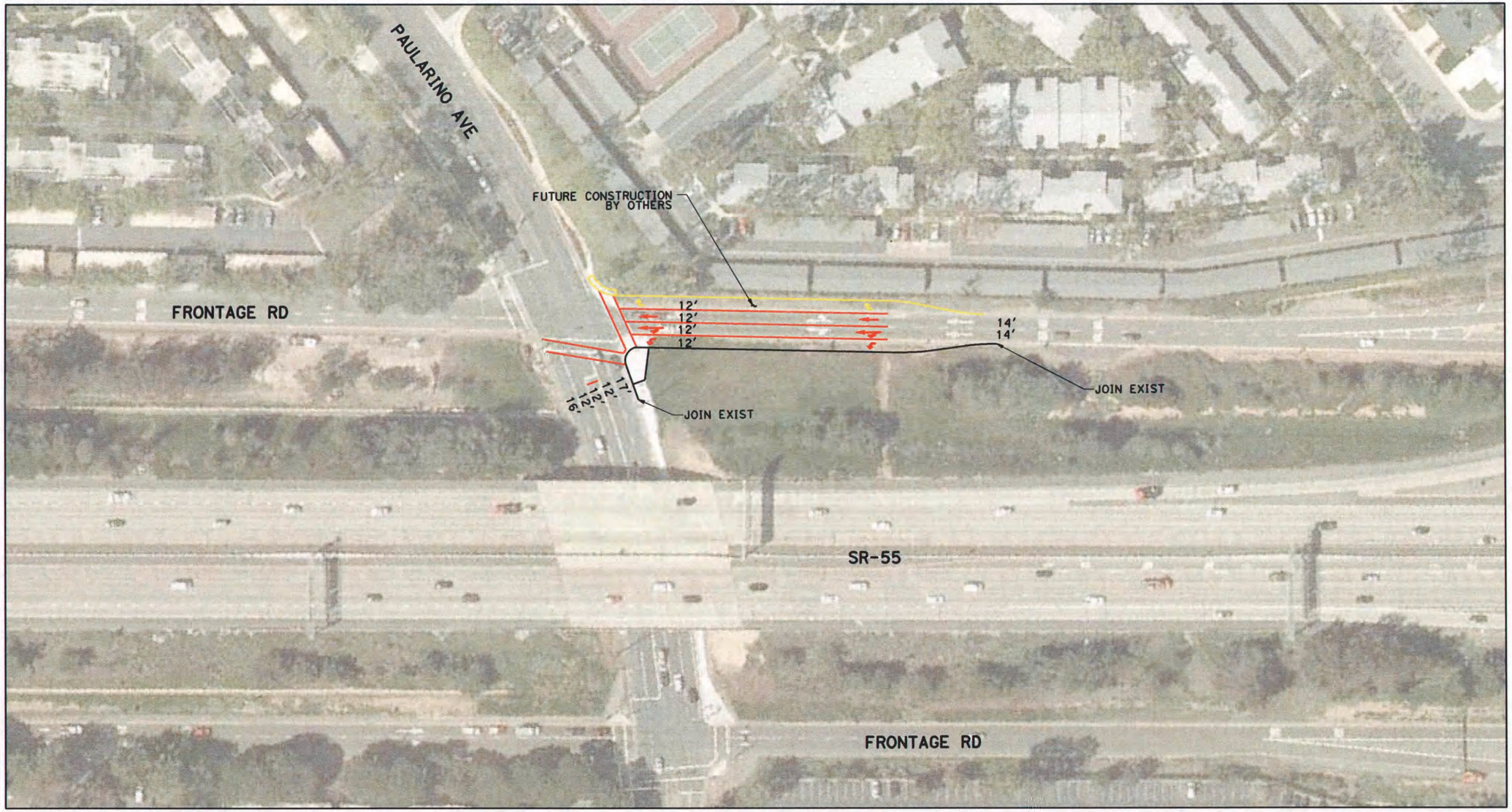
Cost Estimate

Intersection 10
SR-55 Frontage Roads & Palarino
Mitigations: Improve SB to 1.5L, 1.5T, 1R

ITEM #	DESCRIPTION OF WORK	UNIT PRICE	UNIT	QUANTITY	COST	NOTES
	ROADWAY					
1	Clear & Grub	$12,200.00	AC	0.10	**$1,220**	
2	Earthwork	$46.00	CY	620	**$28,520**	
3	Remove Curb & Gutter	$24.00	LF	730	**$17,520**	
4	Remove Median Curb	$30.00	LF	0	**$0**	
5	Remove PCC Sidewalk	$5.00	SF	330	**$1,650**	
6	Remove Pavement	$5.00	SF	1370	**$6,850**	
7	Remove Channel	$40.00	LF	6	**$240**	
8	Remove/Replace Chain Link Fence	$35.00	LF	160	**$5,600**	
9	Remove and Replace Pedestal and Wrought Iron Fence	$75.00	LF	0	**$0**	
10	Remove and Replace Vinyl Fence	$40.00	LF	0	**$0**	
11	Reconstruct Metal Beam Guard Rail	$40.00	LF	0	**$0**	
12	Remove & Replace Tree	$1,500.00	EA	0	**$0**	
13	Modify Driveway	$6,100.00	EA	0	**$0**	
14	Construct PCC Pavement	$14.00	SF	0	**$0**	
15	Construct AC Pavement	$8.00	SF	5580	**$44,640**	
16	Construct AC Overlay	$3.60	SF	0	**$0**	
17	Construct Slurry Seal	$0.40	SF	0	**$0**	
18	Construct AC Dike	$15.00	LF	0	**$0**	
19	Construct Curb & Gutter	$30.00	LF	690	**$20,700**	
20	Construct Concrete Barrier	$80.00	LF	0	**$0**	
21	Construct Median Curb	$31.00	LF	0	**$0**	
22	Construct Median Concrete	$15.00	SF	0	**$0**	
23	Construct Median/Parkway Landscaping	$13.00	SF	0	**$0**	
24	Construct PCC Sidewalk	$9.05	SF	630	**$5,702**	
25	Construct Wheelchair Ramp	$6,000.00	EA	2	**$12,000**	
26	Construct Retaining Wall	$75.00	SF	0	**$0**	
27	Remove Retaining Wall	$35.00	SF	0	**$0**	
28	Relocate Monument Wall	$20,000.00	EA	0	**$0**	
29	Sawcut	$4.00	LF	710	**$2,840**	
	ROADWAY SUBTOTAL				**$147,482**	
	TRAFFIC					
30	Remove Striping	$3.00	LF	0	**$0**	
31	Remove Pavement Markings	$150.00	EA	0	**$0**	
32	Relocate Street Light	$6,200.00	EA	0	**$0**	
33	Modify Traffic Signal	$325,000.00	EA	0.75	**$243,750**	
34	New Traffic Signal	$425,000.00	EA	0	**$0**	
35	Install Striping	$5.00	LF	3080	**$15,400**	
36	Install Pavement Markings	$350.00	EA	0	**$0**	
37	Relocate Freeway Sign (2 post)	$700.00	EA	1	**$700**	
38	Loop Detector	$2,000.00	EA	0	**$0**	
39	Remove Roadside Sign	$150.00	EA	0	**$0**	
40	Relocate Sign (1 post)	$220.00	EA	2	**$440**	
41	Overhead Sign (2 posts)	$240,000.00	EA	0	**$0**	
42	Relocate Bus Bench	$1,458.00	EA	0	**$0**	
43	Relocate Automatic Gate	$10,000.00	EA	0	**$0**	
44	Install Ramp Metering System	$80,000.00	EA	0	**$0**	
45	Install Delineator	$36.60	EA	0	**$0**	
46	Apply ATMS	$113,165.00	LS	0	**$0**	
	TRAFFIC SUBTOTAL				**$260,290**	
	UTILITIES AND DRAINAGE					
47	Relocate Call Box	$2,051.00	EA	0	**$0**	
48	Relocate Power Pole	$25,000.00	EA	1	**$25,000**	
49	Relocate Catch Basin	$9,760.00	EA	1	**$9,760**	
50	Relocate Fire Hydrant	$5,000.00	EA	0	**$0**	
51	Relocate Utility Boxes	$1,000.00	EA	1	**$1,000**	
52	Relocate Main Water Valve	$12,200.00	EA	0	**$0**	
53	Relocate Utility Vault	$10,000.00	EA	1	**$10,000**	
54	Adjust Manhole to Grade	$1,500.00	EA	0	**$0**	
55	Adjust Water Meter	$1,000.00	EA	0	**$0**	
56	Adjust Water Valve	$1,000.00	EA	0	**$0**	
57	Adjust Minor Above Ground Utilities	$1,000.00	EA	0	**$0**	
58	Construct Striping & Marking	$2.00	LF	0	**$0**	
59	Construct Storm Drain Main	$122.00	LF	0	**$0**	
60	Construct RCB	$549.00	CY	0	**$0**	
61	Construct Channel (Earthen)	$12.20	LF	0	**$0**	
62	Construct Concrete V-Ditch	$19.00	LF	7	**$133**	
63	Construct Bridge Widening	$500.00	SF	0	**$0**	
	UTILITIES AND DRAINAGE SUBTOTAL				**$45,893**	
	GENERAL					
64	Mobilization	10%	LS	1	**$45,366**	
65	Traffic Control	8%	LS	1	**$36,293**	
66	Utility Relocations	5%	LS	1	**$22,683**	
67	SWPPP Plan and Implementation	6%	LS	1	**$27,220**	
	CONSTRUCTION SUBTOTAL				**$585,227**	
	RIGHT-OF-WAY					
68	Right-Of-Way	$70.00	SF	380	**$26,600**	
69	Parking Impacts	$20,000.00	EA	0	**$0**	
70	Temporary Construction Easements	$6.50	SF	0	**$0**	
71	Right-of-Way Management	10%	LS	1	**$2,660**	
	RIGHT-OF-WAY SUBTOTAL				**$29,260**	
TOTAL CONSTRUCTION & RIGHT-OF-WAY COST:					**$614,487**	
Preliminary Project Development (10% Construction Cost, min $300,000)					**$300,000**	
Design Engineering/Administration Cost (15% Construction Cost)					**$87,784**	
Construction Engineering Costs/Administration (15% Construction Cost)					**$87,784**	
Contingency (20% Construction Cost)					**$117,045**	
TOTAL PROJECT COSTS					**$1,207,101**	

LEGEND

- CENTERLINE
- RIGHT OF WAY TAKE
- RIGHT OF WAY
- RETAINING WALL



MITIGATIONS:
+ ADD SB LEFT TURN LANE
+ RESTRIPE LEFT SB THROUGH LANE TO SHARED THROUGH-LEFT

COSTA MESA - INTERSECTION 10
SR-55 SB FRONTAGE ROAD AND PAULARINO AVENUE

Source: Irvine Business Complex, Vision Plan Traffic Fee Nexus Study, 2010

$$$$$$$SYTIME$$$$$
DGN$SPEC$$$$$$$$$$$$$$$$$$$$
cofrojgi

Appendix E: 1993 Agreement between City of Irvine and City of Costa Mesa

OFFICIAL COPY
CITY CLERKS OFFICE
CITY OF IRVINE

AGREEMENT

This Agreement for IMPLEMENTING THE IBC ROADWAY MITIGATION AND MONITORING PROGRAM ("Agreement") is made and entered into as of this 4th day of January, 1993 (the "Effective Date"), by and between the City of Irvine, a California charter city ("Irvine") and the City of Costa Mesa, a California municipal corporation ("Costa Mesa") (collectively referred to as the "Parties").

R E C I T A L S

A. Irvine has certified Environmental Impact Report 88-ER-0087 (the "IBC EIR"), as adequate and complete and adopted General Plan Amendment No. 7234-GA, and Zoning Amendment 88-ZC-0135 (collectively the "IBC Rezoning") to amend the land use designation and zoning in that portion of the City known as the Irvine Business Complex (the "IBC"), more specifically defined as that area depicted on Exhibit "A," attached hereto and incorporated herein by this referenced.

B. The IBC EIR analyzes the IBC Rezoning and concludes that the traffic mitigation measures contained therein (the "IBC Traffic Mitigation Measures") will adequately accommodate the traffic impacts which are anticipated to be generated by the IBC Rezoning.

C. The Parties hereto wish to monitor the traffic generated as a result of the IBC Rezoning to allow them to make timely decisions on the funding and implementation of the IBC Traffic Mitigation Measures.

C O V E N A N T S:

NOW, THEREFORE, in consideration of the mutual promises and covenants contained herein, the Parties hereto agree as follows:

1. Mitigation Monitoring Program.

Irvine shall monitor the implementation of the IBC Traffic Mitigation Measures in the manner provided for in the mitigation monitoring program adopted by Irvine pursuant to City Council Resolution No. 92-162 (the "Mitigation Monitoring Program").

2. Implementation of the Development Deferral Program.

Irvine shall implement the development deferral program contained within in Appendix "B" of the IBC EIR (the "DDP") in either situation provided below:

(a) Irvine shall implement the DDP if the Mitigation Monitoring Program discloses that traffic generated by the IBC Rezoning has caused any arterial within Costa Mesa to exceed that arterial's applicable level of service ("LOS"). For the purpose of this Agreement an arterial's applicable LOS shall be that minimum LOS adopted for that arterial in the Circulation Element of the Costa Mesa General Plan as of the Effective Date. The DDP will remain in effect until such time as Irvine has devised and funded a mitigation measure which will reduce the IBC generated traffic on the arterial to the arterial's applicable LOS; or

(b) Irvine shall implement the DDP if, within three years prior to the scheduled

implementation of any IBC Traffic Mitigation Measure within Costa Mesa, Irvine determines that it will not have sufficient funds to actually construct that mitigation measure. The DDP will remain in effect until Irvine determines that it can fund the previously approved mitigation measure, or it devises a substitute mitigation measure acceptable to Costa Mesa and determines that the substitute mitigation measure can be funded.

3. Additional Mitigation.

In the event that the Mitigation Monitoring Program discloses that traffic generated as a result of the IBC Rezoning is having significant impact within Costa Mesa in excess of the traffic impacts discussed in the IBC EIR, Irvine and Costa Mesa shall meet and confer on the appropriate method to mitigate that significant impact (the "Supplemental Mitigation Measure(s)"). Irvine shall contribute its proportionate fair share of the cost of implementing the Supplemental Mitigation Measure(s). Irvine's proportionate fair share of the cost of the Supplemental Mitigation Measure(s) shall be based upon that percentage of IBC generated traffic which is actually attributable to the need for implementation of the Supplemental Mitigation Measure(s).

4. Analysis of Traffic Study Assumptions.

The City of Irvine will, at its own cost, hire a consultant to independently:

a. Conduct a traffic analysis of IBC EIR traffic assumptions after the completion of construction following issuance of building permits for 46 million gross square feet (approximately 40 million gross square feet existing today).

b. More specifically, all EIR traffic assumptions affecting the City of Costa Mesa will be analyzed which may include factors such as trip rates, TDM rates, and occupancy.

5. Covenant Not to Sue.

Each Party, and its respective agents, officers, employees, representatives, and assigns hereby agrees and covenants that this Agreement forever satisfies any past, present, or future claims which the Party, and its agents, officers, employees, representatives or assigns had, has or may have against the other Party or its agents, officers, employees, representatives, and assigns arising out of the IBC Rezoning and/or the preparation and certification of the IBC EIR. As a result, each Party hereto covenants not to file any future legal actions of whatever kind or nature against the other party regarding any claim in connection with the IBC Rezoning or the IBC EIR whether such claim is known or unknown, suspected or unsuspected, fixed or contingent.

6. Waiver of Civil Code Section 1542.

Each of the Parties hereto expressly waives any and all rights under Section 1542 of the California Civil Code or any Federal or State statutory right, rules or principles of common law

or equity or those of any other jurisdiction, government or political subdivision thereof, similar to Civil Code Section 1542 (hereinafter referred to "Similar Provision"). Thus, no Party hereto may invoke the benefit of Section 1542 or any Similar Provision in order to prosecute or assert in any manner any claim released hereunder. Section 1542 provides that:

> "a general release does not extend to claims which the creditor does not know or suspect to exist in his favor at the time of executing the release, which if known by him must have materially effected his settlement with the debtor."

7. Integration.

This Agreement represents the entire understanding of the Parties hereto. No prior or contemporaneous oral or written understanding shall be of any force or effect with respect to those matters covered in this Agreement. Except as set forth in Sections 2(e) and 3(a) above, this Agreement may not be altered, amended, or modified except by mutual consent of the Parties hereto through a written instrument.

8. Attorneys Fees.

In the event that any Party hereto should bring any action, suit or other proceeding to remedy, prevent, or obtain relief from a breach of this Agreement or arising out of a breach of this Agreement, or contesting the validity of this Agreement or attempting to rescind, negate, modify, or reform this Agreement or any of the terms or provisions of this Agreement, the prevailing Party shall recover from such Party those reasonable attorneys fees and costs, including expert fees, incurred in each and every such

action, suit, or other proceeding, including any and all appeals or petitions therefrom.

9. California Law.

This Agreement shall be construed and interpreted both as to validity and performance of the Parties in accordance with the laws of the State of California.

10. Execution and Counterparts.

This agreement may be executed and delivered in any number of counterparts or copies ("Counterpart") by the Parties hereto.

11. Authority to Execute.

The persons executing this Agreement on behalf of the Parties hereto warrant that they are duly authorized to execute this Agreement on behalf of said Parties and that by so executing this Agreement, the Parties hereto are formally bound to the provisions of this Agreement. Each person further acknowledges that he or she has obtained all necessary and legally required approvals for entry into this Agreement from legislative or governing boards and that it has adopted a resolution, motion, ordinance or other action pursuant to State law and its own bylaws or ordinances for approval of this Agreement.

12. Notices.

Every notice, demand, request, or other document or instrument delivered pursuant to this Agreement shall be in writing and shall either be personally delivered, sent by Federal Express or other reputable over-night courier, sent by facsimile transmission with the original subsequently delivered by any other

means authorized herein, or sent by certified United States mail, postage prepaid, return receipt requested, to the address set forth below for the applicable Party, or such other address as Parties may designate from time to time:

To Irvine:
City of Irvine
City Hall
One Civic Center Plaza
P.O. Box 19575
Irvine, CA 92713
Attn: City Manager
cc: Director of Community Development
Telephone: (714) 724-6000
Fax: (714) 724-6075

To Costa Mesa:
City of Costa Mesa
77 Fair Drive
P.O. Box 1200
Costa Mesa, CA 92626
Attn: City Manager
cc: Executive Director of Planning and Building
Telephone: (714) 754-5327
Fax: (714)

13. Severability clause.

The invalidity in whole or in part of any provision of this Agreement shall not void or affect the validity of any other provision of this Agreement.

IN WITNESS WHEREOF, the Parties have executed this Agreement by their signature as appearing below.

CITY OF COSTA MESA

by _____
Mayor

ATTEST:

Eileen P. Rhinney
Clerk of the Council

APPROVED AS TO FORM:

Thomas Kathe 12-18-92

City Attorney

CITY OF IRVINE

ATTEST:

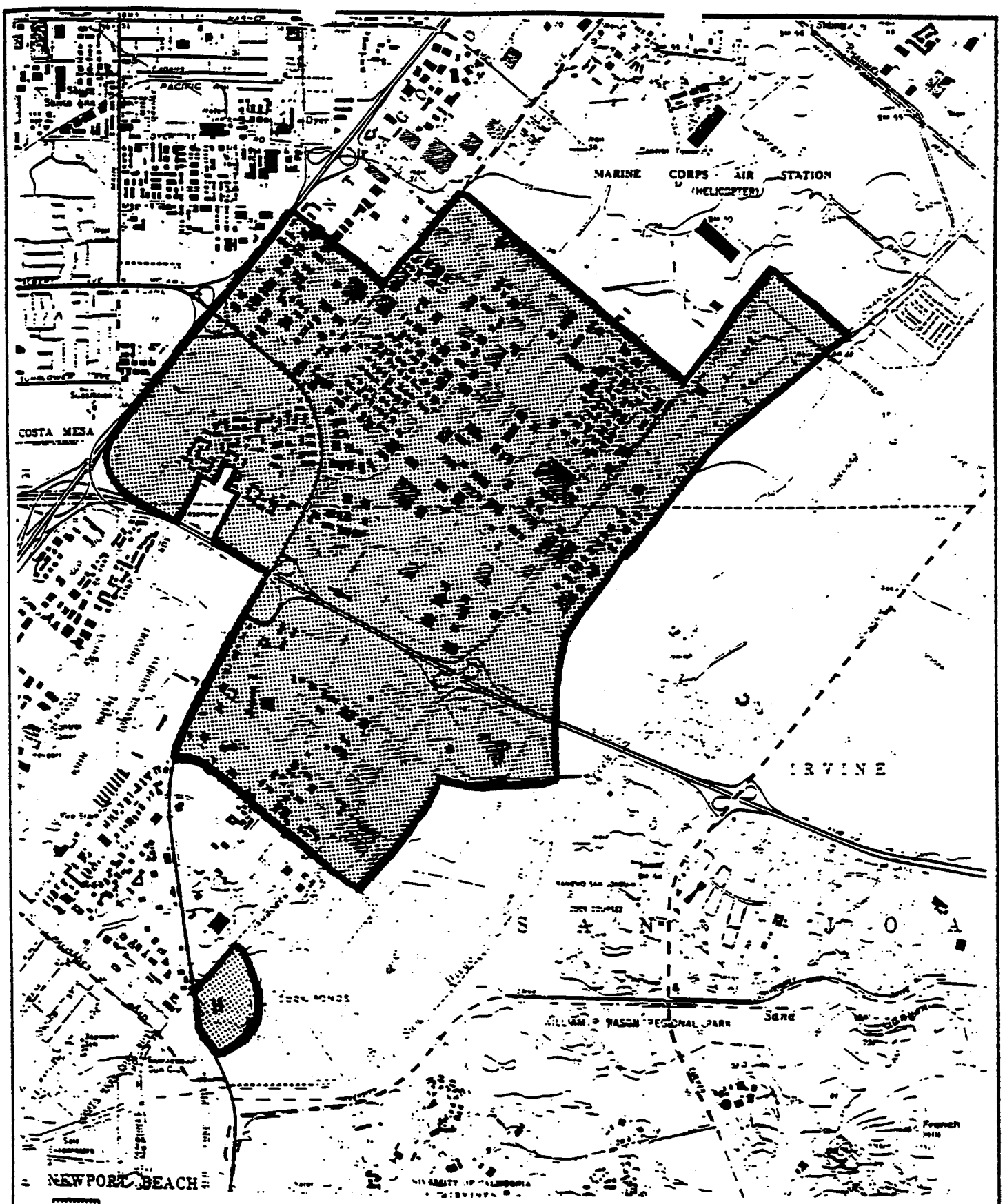
by Larry Ann Sheridan

Mayor

Clerk of the Council

APPROVED AS TO FORM:

City Attorney



Source: U.S.G.S. Topographic Map
Tustin Quadrangle, Revised 1981

0 3000'

ATTACHMENT A

IRVINE BUSINESS COMPLEX
Site Vicinity Map

Robert Bein, William Frost & Associates

Appendix F: 2010 Settlement Agreement between City of Irvine and Caltrans District 12

TMA No. D-12-2010-01

TRAFFIC MITIGATION AGREEMENT

THIS AGREEMENT entered into and shall be effective on this 25th day of January, 2011 by and between the State of California, acting by and through its Department of Transportation, hereinafter referred to as "Department," and the City of Irvine, hereinafter referred to as "Agency." The Department and Agency are collectively referred to as the "Parties."

RECITALS

A. WHEREAS, on July 13, 2010 Agency certified the Final Environmental Impact Report (FEIR) for certain General Plan Amendments and Zone Change that are collectively known as the Irvine Business Complex (IBC) Vision Plan. That same evening, the Agency approved the General Plan Amendment for the IBC Vision Plan, and conducted the first reading for the Zone Change for the IBC Vision Plan. On July 27, 2010, the Agency conducted the second reading for the Zone Change for the IBC Vision Plan. The IBC Vision Plan is hereinafter referred to as the "Proposed Land Use Project." The Proposed Land Use Project is generally bounded by the former Tustin Marine Corps Air Station (MCAS) to the north, the San Diego Creek channel to the east, John Wayne Airport and Campus Drive to the south and State Route 55 (SR-55) to the west. The Proposed Land Use Project is bordered by the cities of Newport Beach, Santa Ana, Costa Mesa and Tustin. The Proposed Land Use Project allow for and/or contemplates (i) an increase in total units in the IBC from 9,401 units to 15,000 units, and (ii) a reduction of 2,715,062 square feet of nonresidential development (measured in office equivalency). In addition, a total of 2,038 density bonus units could be allowed (and are therefore assumed as part of the project) in accordance with state law, for a total of 17,038 units; and

B. WHEREAS, Mitigation Measure 13-4 of the FEIR ("MM 13-4") requires that an agreement between Parties be executed to address fair-share funding responsibilities for certain improvements within the jurisdiction and control of Department that will ultimately offset impacts to the State Highway System (SHS) as a result of the Proposed Land Use Project; and

C. WHEREAS, as set forth in the letters dated October 21, 2009 (Exhibit A) and November 12, 2009 (Exhibit B), each attached hereto and incorporated herein by reference, the Parties agree on the methodology used to (i) identify impacts to the SHS as a result of the Proposed Land Use Project and (ii) establish Agency's pro-rata share of funding responsibilities to offset and mitigate for impacts to the SHS as a result of the Proposed Land Use Project; and

D. WHEREAS, a Traffic Impact Study (TIS) identifies various impacts to the SHS as a result of the Proposed Land Use Project. The SHS facilities that the TIS identifies as being impacted by the Proposed Land Use Project are listed below. Each listed facility shall be referred to as an "Individual SHS Project". Each Individual SHS Project displays Agency's corresponding pro-rata funding percentage of the mitigation responsibility, based on the methodology described in Exhibit A and Exhibit B:

- Northbound Interstate (I)-5 mainline: Jamboree to Newport (1.8% fair-share)
- Northbound I-5 mainline: Newport to State Route (SR)-55 (1.7% fair-share)
- Southbound I-5 mainline: Jamboree to Tustin Ranch (2.3% fair-share)
- Southbound I-5 mainline: Tustin Ranch to Red Hill (2.3% fair-share)
- Southbound I-5 connector: SR-55 to southbound I-5 (2.3% fair-share)
- Northbound I-405 mainline: Jamboree to MacArthur (2.2% fair-share)
- Northbound I-405 off-ramp: Culver (1.8% fair-share)
- Northbound I-405 off-ramp: MacArthur (7.3% fair-share)
- Northbound I-405 on-ramp: MacArthur (3.8% fair-share)
- Southbound 1-405 mainline: Jamboree to MacArthur (2.9% fair-share)
- Southbound 1-405 off-ramp: Jamboree (21.6% fair-share)
- Southbound I-405 on-ramp loop: Bristol (7.5% fair-share)
- Southbound I-405 connector: I-405 to southbound SR-55 (3.3% fair-share)
- Northbound SR-55 mainline: 1-405 to MacArthur (3.3% fair-share)
- Northbound SR-55 mainline: MacArthur to Dyer (3.0% fair-share)
- Northbound SR-55 mainline: Dyer to Edinger (2.7% fair-share)
- Northbound SR-55 off-ramp: Baker (1.1% fair-share)
- Northbound SR-55 direct on-ramp: Dyer (3.6% fair-share)
- Southbound SR-55 mainline: I-405 to MacArthur (4.8% fair-share)
- Southbound SR-55 mainline: MacArthur to Dyer (4.1% fair-share)
- Southbound SR-55 on-ramp: Baker (3.1% fair-share)
- Southbound SR-55 loop on-ramp: MacArthur (8.0% fair-share)
- Northbound SR-73 on-ramp: Campus (6.1% fair-share)
- Southbound SR-73 off-ramp: Jamboree (4.0% fair-share); and

E. WHEREAS, the Parties have agreed upon a feasible improvement at each Individual SHS Project location that provides adequate mitigation of the associated Proposed Land Use Project impacts; and

F. WHEREAS, the Parties have agreed that Agency's total funding commitment to offset the Proposed Land use Project impacts on SHS facilities will not exceed the amount of $7,025,962 (Total Fair-Share Contribution), as more partieularly set forth in Exhibit C attaehed hereto; and

G. WHEREAS, Agency intends to adopt a fee program imposed on future development within the IBC ("IBC Transportation Fee Program" or "Program") that, among other things, will collect the Total Fair Share Contribution; and

H. WHEREAS, the Total Fair Share Contribution constitutes a percentage of the total amount forecasted to be collected through the IBC Transportation Fee Program; and

I. WHEREAS, Agency will segregate, and devote solely to the payment of the Total Fair Share Contribution in accordance with this Agreement, a percentage of the incoming Program funds equivalent to the ratio of the Total Fair Share Contribution to the remainder of the Program funds ($7,025,962 / Total Fee Program Amount at Time of Segregation) of every dollar collected through the IBC Transportation Fee Program (the "Segregated Amount"). This ratio will be adjusted as funds are expended from either the Segregated Amount and/or the remainder of the Program funds; and

J. WHEREAS, the Parties have agreed that Agency will not contribute any funding towards improvement of the Individual SHS Project identified as Northbound 1-405 off-ramp at Culver because the Agency will mitigate this location as an intersection impact identified in the FEIR and TIS; and

K. WHEREAS, Agency now desires to fulfill the requirements of MM 13-4.

NOW THEREFORE, for good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, the Parties hereby agree as follows:

AGREEMENT

1. Parties agree that Agency's total fair share contributions toward Individual SHS Projects shall not exceed the Total Fair-Share Contribution amount. For so long as Agency's cumulative contributions toward the Individual SHS Projects remains below Agency's Total Fair-Share Contribution amount, Agency shall be required to pay its fair share contribution, up to the then existing total of the Segregated Amount, to each Individual SHS Project.

2. Subject to the conditions and limitations on the amount and timing of funding set forth in this Agreement, the Parties agree to execute a separate Contribution Cooperative Agreement authorizing the transfer of funds for each and every Individual SHS Project at least 180 days prior to scheduled date of commencement of construction. So long as the Contribution Cooperative Agreement(s) is(are) fully consistent with the terms of this Agreement, Agency authorizes the City Manager to execute Contribution Cooperative Agreement(s) on behalf of Agency.

3. Parties agree to inelude the following general conditions when developing each Contribution Cooperative Agreement: (i) provide Agency with 60 ealendar days to pay invoiee, once it has been received, (ii) each invoice from Department will bill in the form of a lump sum, (iii) if, at the time the Contribution Cooperative Agreement is being prepared, the Segregated Amount held by Agency is less than the anticipated fair share eontribution for an Individual SHS Project, the Contribution Cooperative Agreement will consider alternative billing arrangements such that Agency may remit to Department additional Segregated Amounts within a reasonable time as additional fees under the IBC Transportation Fee Program are paid to the Agency, and (iv) if, following Agency's payment of a fair share contribution toward an Individual SHS Project, Department's plans for eonstruction of said Individual SHS Project are terminated or delayed for a period exceeding one year, Department shall refund Agency's fair share contribution toward said individual SHS Project; provided however, that said refund shall be without prejudice to Department's ability to re-invoice Agency for a fair share eontribution to said Individual SHS Project if and when construetion plans for said project are re-activated.

4. If Agency's fair share contribution to an Individual SHS Project would cause Agency's cumulative contributions under this Agreement to exceed the Total Fair Share Contribution amount, then Agency shall only be responsible to pay such amount as would result in the cumulative contributions under this Agreement equaling the Total Fair Share Contribution amount.

5. If, by December 31, 2040, the Department fails to utilize any portion of Agency's Total Fair-Share Contribution, those remaining funds shall be released from the commitments of this Agreement.

6. Agency's Total Fair-Share Contribution shall fully satisfy Agency's obligation to participate in the mitigation of traffic impacts per MM 13-4 of the FEIR. Agency will not be required to fund any additional improvements that may arise from the Proposed Land Use Project.

7. Department shall use the Total Fair-Share Contribution, and each and every portion thereof, for the purpose of mitigating impacts to the SHS as a result of the Proposed Land Use Project. Department may allocate a portion of funds towards improvements that have not yet been identified, but would provide equal or greater mitigation value than one or more of the Individual SHS Project(s), identified in Exhibit C of this Agreement, to offset the Proposed Land Use Project impacts.

8. Department shall advertise, award and administer (AAA) the eonstruction contract for eaeh and every projeet that utilizes Total Fair-Share Contribution funds.

9. Department shall not use Total Fair-Share Contribution funds for projeets off the SHS, unless a eooperative agreement ("Cooperative Agreement") is first developed and exeeuted by the Parties that (i) elearly demonstrates a nexus, (ii) transfers AAA responsibilities, (iii) addresses maintenanee responsibilities, and (iv) provides all

necessary and standard language including indemnification, document retention, wage requirements, and other associated commitments.

10. This Agreement shall expire upon the earliest of the following occurrences: (i) when Department has expended the entire Total Fair-Share Contribution; (ii) when all nnspent Total Fair-Share Contribution funds are returned to Agency; or (iii) on December 31, 2040.

11. All notices, transmittals of doeumentation and other writings required or permitted to be delivered or transmitted to either of the Parties under this Agreement shall be personally served or deposited in a United States mail depository, first class postage prepaid, and addressed as follows:

If to the Agency:	City of Irvine One Civic Center Plaza P.O. Box 19575 Irvine, CA 92623 Attention: City Manager
If to the Department:	California Department of Transportation District 12 3347 Michelson Drive, Suite 100 Irvine, CA 92612 Attention: Deputy District Director, Transportation Planning and Local Assistance

All such notices and communications shall be deemed to have been duly given when delivered by hand, if personally delivered. Except where service is by registered or certified mail, return reeeipt requested, service of any instrument or writing shall be deemed completed forty-eight (48) hours after deposit in the United States mail depository.

12. Nothing expressed or mentioned in this Agreement is intended or shall be construed to give any person, other than the Parties hereto and their respective authorized successors and assigns, any legal or equitable right, remedy or claim under or in respect to this Agreement or any of the provisions contained herein. This Agreement and each and every eondition and provision hereof are intended to be for the sole and exclusive benefit of the Agency and the Department, and their respective authorized successors and assigns, and for the benefit of no other person or entity.

13. This Agreement shall be governed by and construed in accordance with the laws of the State of California, and any dispute arising from or related to the interpretation or performance of this agreement shall be commenced in the Superior Court of the State of California, County of Orange.

14. No failure on the part of either Party hereto to insist upon or demand the strict performance by the other Party of any covenant, term, condition or promise of this Agreement, or to exercise any right or remedy as a result of any breach of the Agreement, shall constitute a continuing waiver of any such breach or of any such covenant, term, condition, promise, right or remedy. No waiver of any breach shall in any way affect, alter or modify this Agreement, but each and every covenant, term, condition and promise of this Agreement shall continue in full force and effect. No single or partial exercise of any right, remedy, power or privilege under this Agreement shall preclude any other or further exercise thereof or the exercise of any other right, remedy, power or privilege under this Agreement.

15. Nothing in this Agreement shall be construed to make the Parties joint ventures or partners, or to create any relationship of principal and agent, and the Parties specifically disavow any such relationship between one another.

16. This Agreement has been negotiated at arms' length between persons sophisticated and knowledgeable in the matters addressed herein, and both Parties have had the opportunity to consult with legal counsel of such party's choosing regarding this Agreement. Accordingly, any rule of law (including California Civil Code § 1654) or legal decision that would require interpretation of this Agreement against the drafter hereof is not applicable and is waived.

17. This Agreement is intended by the Parties as a final expression of their agreement and is intended to be a complete and exclusive statement of the agreement and understanding of the Parties hereto in respect to the subject matter contained herein. There are no restrictions, promises, warranties or undertakings relating to the subject matter of this Agreement, other than those set forth or referred to in this Agreement.

18. Each officer of the Department and the Agency affixing his or her signature below thereby warrants and represents that he or she has the full legal authority to bind his or her respective party to all of the terms, conditions and provisions of this Agreement; that his or her respective party has the full legal right, power, capacity and authority to enter into this Agreement and perform all the obligations herein; and that no other approvals or consents are necessary in connection therewith.

19. Neither this Agreement nor any provision hereof may be changed, waived, discharged or terminated, except upon the duly authorized execution of a subsequent agreement in writing executed by all of the Parties.

20. Neither Agency nor any officer or employee thereof is responsible for any injury, damage, or liability occurring hy reason of anything done or omitted to be done by Department and/or its agents under or in counection with any work, authority, or jurisdiction conferred upon Department under this Agreement. Department and/or its agents shall fully defend, indemnify and save harmless Agency and all of its officers and employees from all claims, suits, or actions or every name, kind and description brought forth under, but not limited to, tortious, eontraetual, inverse eondemnation, or

other theories or assertions of liability occurring by reason of anything done or omitted to be done by Department and/or its agents under this Agreement.

21. Neither Department nor any officer or employee thereof is responsible for any injury, damage, or liability occurring by reason of anything done or omitted to be done by Agency and/or its agents under or in connection with any work, authority, or jurisdiction conferred upon Agency under this Agreement. Agency and/or its agents shall defend, indemnify and save harmless Department and all of its officers and employees from all claims, suits, or actions or every name, kind and description brought forth under, but not limited to, tortious, contractual, inverse condemnation, or other theories or assertions of liability occurring by reason of anything done or omitted to be done by Agency and/or its agents under this Agreement.

IN WITNESS WHEREOF, the Parties hereto have executed this Agreement as set forth below.

CALIFORNIA DEPARTMENT OF TRANSPORTATION

By:_____
Cindy Quon
Director, District 12

CITY OF IRVINE

By:_____
Sukhee Kang
Mayor

APPROVED AS TO FORM AND PROCEDURE:

By:_____
Deputy Attorney,
Department of Transportation

ATTEST:

By:_____
City Clerk

APPROVED AS TO FINANCIAL TERMS AND POLICIES:

By:_____
Headquarters Accounting Administrator,

APPROVED AS TO FORM:

By:_____
City Attorney

Exhibit A

(October 21, 2009 letter)

Public Works Department
www.cityofirvine.ca.us
City of Irvine, [illegible] Center Plaza, P.O. Box 19575, Irvine, California 92623-9575 (949) 724-6000

October 21, 2009

Ryan Chamberlain
Caltrans District 12
3337 Michelson Drive Suite 380
Irvine, CA 92612-8894

Dear Mr. Chamberlain:

This letter is to follow up on our recent follow up discussions regarding the proposed methodology used for analyzing the traffic impacts of the proposed project in the IBC Vision Plan ("Project") on the Caltrans facilities in the project study area. Based on our discussion and follow up phone call, the city is proposing to use the following two-tiered approach, revised traffic analysis methodology and the indicated fair share formula instead of previously indicated methodology documented in our October 15, 2009 letter:

1. Evaluate freeway mainline segments and ramps based on peak hour V/C ratios. If the V/C ratio indicates LOS F for a given freeway mainline segment or ramp, then the Highway Capacity Manual (HCM) methodology indicated below as the second step of this two tiered approach is not needed for that freeway mainline segment or ramp.

2. Apply the HCM methodology to determine the LOS. This second step will only be taken for a freeway mainline segment if the V/C ratio analysis indicates that the mainline segment operates at LOS D/E cusp (0.89) and if the Project contributes greater than 200 vehicle trips per hour (based on the comparison of no-project and with-project V/C ratios) to a freeway mainline segment. This second step will only be taken for a ramp if the V/C ratio analysis indicates that the ramp operates at LOS D/E cusp (0.89) and the Project contributes greater than 30 vehicle trips per hour to a ramp.

<u>Traffic Analysis Methodology</u>

Level of Service (LOS) Targets:

Freeway Mainline Segments: A significant impact occurs when:

a. The segment LOS is better than D/E cusp (<0.89) without the project and the project adds additional trips that degrades the segment beyond the LOS D/E

cusp and the project contributes more than 200 vehicles per hour once beyond the D/E cusp, or

b. The segment is at LOS D/E cusp or worse (>=0.89) before project and the project contributes greater than 200 vehicle trips per hour.

Off-Ramps and On-Ramps: A significant impact occurs when:

a. The ramp LOS is better than D/E cusp (<0.89) without the project and the project adds additional trips that degrades the segment beyond the LOS D/E cusp and the project contributes more than 30 vehicles per hour once beyond the D/E cusp, or

b. The ramp is at LOS D/E cusp or worse (>=0.89) without the project and the project contributes greater than 30 vehicle trips per hour.

Ramp Intersections:

- Both the Intersection Capacity Utilization (ICU) analysis methodology and the HCM intersection analysis methodology will be applied to determine intersection levels of service. The performance criteria at the ramp intersections will be based on the performance criteria of the City in which the intersection is located. A significant impact occurs when a given ramp intersection is at an unacceptable LOS (based on either the ICU or HCM analysis results) and the project contribution exceeds impact threshold applied by the City in which the intersection is located, based on the comparison of no-project and with-project ICU values.

Equitable Share Responsibility

Consistent with recently approved traffic studies for General Plan Amendment and Zone Changes relating to Planning Areas 1, 5B, 6, 8, 9, 18, 33, 34, 39 and 40, and Orange County Great Park, the City will conduct the equitable share responsibility toward feasible improvements for freeway segments and ramps based on the following formula:

$$\text{Equitable Share Responsibility} = \frac{\text{Future with Project} - \text{Future No Project}}{\text{Future with Project}}$$

The additional trips added that bring any segment to the D/E cusp would not need to be considered when calculating fair share responsibility toward feasible improvements. Only those additional trips added once beyond the D/E cusp would be used for the equitable share calculations.

Upon the completion of our traffic analysis, we will work closely with your staff to identify feasible improvements for the impacted facilities. We appreciate your time in

working closely with us on the proposed methodologies. Please feel free to contact me at (949) 724-7526 if you have any questions regarding this letter.

Sincerely,

Shohreh Dupuis
Manager of Transit and Transportation

cc: Christopher Herre, Caltrans District 12
James Pinheiro, Caltrans District 12
Jose Hernandez, Caltrans District 12
Charlie Larwood, OCTA

Exhibit B

(November 12, 2009 letter)

DEPARTMENT OF TRANSPORTATION
District 12
3337 Michelson Drive, Suite 380
Irvine, CA 92612-8894
Tel: (949) 724-2267
Fax: (949) 724-2592

Flex your power!
Be energy efficient!

November 12, 2009

Shohrch Dupuis
City of Irvine
Public Works Department
One Civic Center Plaza
Irvine, California 92623

File: IGR/CEQA
SCH #: 2007011024
Log #: 1817Q
I-405, I-5, SR-55,
SR-73, SR-261

Snbject: Irvine Busiuess Complex Vision Plan and Mixed Use Overlay Zoning Code

Dear Ms. Dupuis:

Thank you for providing us with the updated information on the two-tier approach and significance threshold for the Traffic Impact Study and the methodology for fair share calculation for the subject project.

The Dcpartment of Transportation (Department), District I2 is offering the following comments:

1. The Department agrees with the two tier traffic analysis approach provided the following assumptions are correct.

   A. Freeway mainline segments and ramps will be evaluated using ICU methodology to calculate peak hour V/C ratios. If the V/C indicates LOS F for a given freeway mainline segment or ramp, HCM methodology would not need to be applied to that freeway mainline segment or ramp.

   B. HCM analysis would be performed when:
      a. A mainline segment operates at LOS D/E cusp (0.89) or worse, but better than LOS E/F cusp (1.00), and the project contributcs greater than 200 vehicles per hour (based on thc comparison of no-project and with projcct V/C ratios) to that mainline segment; or
      b. A ramp operates at LOS D/E cusp (0.89) or worse, but better than LOS E/F cusp (1.00), and thc project contributes greatcr than 30 vehicles per hour (based on the comparison of no-project and with project V/C ratios) to that ramp.

<u>On LOS Targcts:</u>

2. The Departments agrees with that freeway mainline segments, ramps, and ramp intersections thresholds outlined in your October 21, 2009 letter. Should a significant impact occur to any State-owned facilities, measures to reduce impacts should be included in the CEQA analysis. We encourage the City to meet with our Local Developmcnt/Intergovernmental branch to discuss potential mitigation measure that could be used for this project.

On Equitable Share Responsibility

3. The Department concurs that the formula provided in your letter dated October 21, 2009 should be used to calculate fair share contributions for this project. The additional trips added that bring any segment to the D/E cusp would not need to be considered when calculating fair share responsibility toward feasible improvements. Only those additional trips added once beyond the D/E cusp would be used for the equitable share calculations.

Thank you again for the information provided and we look forward to continuing working with the City to finalize the traffic analysis, potential fair share calculation and feasible improvements identification. If you have any questions or need to contact us, please do not hesitate to call me at (949) 724-2899.

Sincerely,

RYAN CHAMBERLAIN
Deputy District Director, Planning

cc: James Pinheiro, Deputy District Director – Maintenance/Operations
Chris Herre, Branch Chief, Local Development/Intergovernmental Review

Exhibit C

(Improvement Funds)

Potential Projects to Mitigate IBC Vision Plan's Traffic Impacts to State Facilities

Impacts					Potential Mitigation Projects						
Route	Direction	Facility Type	Location	P2030 Project Fair Share	Description	Location	Agency	Notes	Cost Estimate	City Fairshare	City Comment
I-5	NB	Mainline	Jamboree to Newport	1.8%	Add 1 GP lane between Jamboree and Newport Blvd	Jamboree to Newport Blvd		Project would mitigate impacts at Jamboree to Tustin Ranch, Tustin Ranch to Redhill, and Redhill to Newport. Percentage represents the average of 1.8%, 1.9% and 1.8% for those 3 segments respectively (M2 project)	$20,400,000	$374,000	
			Newport to SR-55	1.7%	Widen connector to two lanes; An additional GP lane on SR-55 to 17th St.	NB I-5 to NB SR-55 connector	OCTA SR-55 feasibility study		$7,200,000	$122,400	
	SB	Mainline	Jamboree to Tustin Ranch	2.3%	Add a second aux lane	Tustin Ranch - Jamboree		Caltrans PSR, also including widening SB I-5 off-ramp at Jamboree	$2,924,000	$67,252	
			Tustin Ranch to Red Hill	2.3%	Add 1GP lane between Tustin and Jamboree	Tustin Ranch - Jamboree		M2 project	$6,720,000	$154,560	
		Fwy Connector		2.3%	Fwy-to-Fwy connector ramp metering	SB SR-55 to SB I-5 connector			$850,000	$19,550	
I-405	NB	Mainline	Jamboree to MacArthur	2.2%	Add a second aux lane	Jamboree to MacArthur			$9,000,000	$198,000	
		Off-ramp	Culver off-ramp	1.8%	Add aux lane from Jeffrey to Culver, provide 2 lane exit and an additional right-turn lane at intersection				$15,900,000	$0	No City fair-share contribution towards aux lane project from Jeffrey to Culver. However, City is committed to implementing intersection improvements at a cost of $359,000.
			MacArthur off-ramp	7.3%	Add a second exit ramp	MacArthur off-ramp			$1,250,000	$91,250	
		On-ramp	MacArthur on-ramp	3.8%	Widen ramps to 4 lanes at entrance that merge to 3 lane at ramp meter	MacArthur on-ramp			$2,250,000	$85,500	
	SB	Mainline	Jamboree to MacArthur	2.9%	Add 2nd aux lane from MacArthur to Jamboree	Jamobree to MacArthur			$9,000,000	$261,000	
		Off-ramp	Jamboree off-ramp	21.8%	Widen intersection to provide 2 left turn and 3 right turn lanes with 500 ft storage	Jamboree off-ramp			$1,500,000	$324,000	
		On-ramp	Bristol Loop on-ramp	7.5%	Extend left lane to ramp mater and upgrade ramp metering signal hardware	Bristol loop on-ramp			$2,100,000	$157,500	
		Fwy Connector		3.3%	Fwy-to-Fwy connector ramp metering	SB I-405 to NB SR-55 conncetor			$850,000	$28,050	
SR-55	NB	Mainline	I-405 to MacArthur	3.3%	Add one GP lane and one Aux lane	I-405 to MacArthur		M2 project	$23,863,636	$787,500	
			MacArthur to Dyer	3.0%	Add one GP lane and one Aux lane	MacArthur to Dyer		M2 project	$21,477,273	$644,318	
			Dyer to Edinger	2.7%	Add one GP lane and one Aux lane	Dyer loop on-ramp to Edinger		M2 project	$38,181,818	$1,030,909	
		Off-ramp	Baker St off-ramp	1.1%	Add a right turn lane at intersection	Baker St. Off-ramp			$500,000	$5,500	
		On-ramp	Dyer Rd Direct on-ramp	3.6%	Increase storage capacity at on-ramps	Dyer Rd Direct On-ramp			$1,300,000	$46,800	
	SB	Mainline	I-405 to MacArthur	4.8%	Add one GP lane and one Aux lane	MacArthur to I-405		M2 project	$23,863,636	$1,145,455	
			MacArthur to Dyer	4.1%	Add one GP lane and one Aux lane	MacArthur to Dyer		M2 project	$21,477,273	$680,568	
		On-ramp	Baker St. on-ramp	3.1%	Increase storage capacity at on-ramps between merging point and ramp meter	Baker St. On-ramp			$1,000,000	$31,000	
			MacArthur loop on-ramp	8.0%	Widen on-ramps	MacArthur to I-405	Santa Ana / Daltrans	Santa Ana is finalizing a PR with Caltrans Design Branch	$4,225,000	$338,000	
SR-73	NB	On-ramp	Campus Dr. on-ramp	6.1%	Widen on-ramp to 3 lanes and upgrade ramp metering signal and hardware	Campus Dr. on-ramp			$1,850,000	$112,850	
	SB	Off-ramp	Jamboree off-ramp	4.0%	Add a 3rd lane from past gore point to join with left lane pocket at Jamboreo	Jamboreo off-ramp			$3,000,000	$120,000	
									$220,602,636	$7,025,952	3.18%

Total Fair Share Contribution towards freeway facility improvements $7,025,962

Appendix G: Details of Developments considered for 2015 Update

IBC TRAFFIC IMPROVEMENT FEE ANALYSIS

July 31, 2010 to July 31, 2015

IBC Projects Paid With Cash Receipts (CR)

ID	Project Name	IBC Project #	Address	Street	Status Code	Dev Status	IBC Fee Status	IBC Fee Status Date	Quantities							Land Use	Residential Base Units	Density Bonus DU	Total Project DU	Notes
									DU	Ext-Stay (Rms)	Hotel (Rms)	Retail (SF)	Office (SF)	Ind-Mix (SF)	M.Ware (SF)					
CR-1	Edward Life Sciences	2	1	Edwards	1	Existing	Cash Receipts	10/22/2012					81,165			Industrial to Office Conversion				Reconciliation of project from Industrial to Office uses. Cash receipt for Case #00541392-PPA Paid in two instalments
CR-2	Edward Life Sciences	2	1	Edwards	1	Existing	Cash Receipts	10/22/2012					957	483		Conversion into Office and Industrial				Reconciliation of project from Industrial to Office uses. Cash receipt for Case #00541392-PPA
CR-3	Edward Life Sciences	2	1	Edwards	1	Existing	Cash Receipts	6/27/2014					97,664	15,688		Office and Industrial				#00593571-CNEW for new 4-story building
									0	0	0	0	179,786	16,171	0					

IBC Projects With Pre-Paid IBC Transportation Fees

ID	Project Name	IBC Project #	Address	Street	Status Code	Dev Status	IBC Fee Status	IBC Fee Status Date	Quantities							Land Use	Residential Base Units	Density Bonus DU	Total Project DU	Notes
									DU	Ext-Stay (Rms)	Hotel (Rms)	Retail (SF)	Office (SF)	Ind-Mix (SF)	M.Ware (SF)					
Pre-1	Element Hotel (Ext. Stay Hotel)	49	17662	Armstrong	1	Exisitng	Pre-Paid	6/27/2012		122						Ext. Stay Hotel			0	#00547885-PIBC
Pre-2	Kelvin Apartments	364	2852	Kelvin	1	Exisitng	Pre-Paid	6/27/2012	194							Residential	156	38	194	#00547263-PIBC; Approval: February 2011
Pre-3	Equity I	17	2501	Alton	2	Under Const.	Pre-Paid	6/5/2014	190							Residential	190		190	00578892-RNA; Paid at Planning Counter
Pre-4	Equity II	529	16931	Millikan	2	Under Const.	Pre-Paid	6/5/2014	154							Residential	154		154	00578892-RNA; Paid at Planning Counter
Pre-5	Homewood Suites (Ext.-Stay Hotel)	608	17370	Red Hill	2	Under Const.	Pre-Paid	6/30/2014		161		3,224				Reail and Ext. Stay Hotel			0	#00609316-PIBC - Vacant Parcel
Pre-6	2801 Kelvin	361	2801	Kelvin	2	Under Const.	Pre-Paid	12/12/2014	381							Residential	305	76	381	#00645304-PIBC; Approval: June 2013
Pre-7	Metropolis	107	2500	Main	2	Under Const.	Pre-Paid	12/12/2014	457							Residential	368	89	457	#00609447-PIBC; Approval: February 2013
Pre-8	Elements (Phase 1)	56 & 97	2601	Campus	3	Approved	Pre-Paid	12/12/2014	700							Residential	560	140	700	#00609448-PIBC; Approval: December 2014
								TOTAL	2,076	283	0	3,224	0	0	0		1,733	343	2,076	

IBC Transportation Fees Paid via Permits Issued

ID	Project Name	IBC Project #	Address	Street	Status Code	Development Status	IBC Fee Status	IBC Fee Status Date	Quantities							Land Use	Residential Base Units	Density Bonus DU	Total Project DU	Notes
									DU	Ext-Stay (Rms)	Hotel (Rms)	Retail (SF)	Office (SF)	Ind-Mix (SF)	M.Ware (SF)					
Permit-1	N/A	16	2481	Alton	1	Existing	Paid	7/12/2010							224	Industrial to Warehouse			0	224 SF Enclosure Addition; #00504865-SBP
Permit-2	Gillette Building	572	17062	Murphy	1	Existing	Paid	10/8/2010					1,763			Office			0	Intensification of 1,763 SF from industrial to office; #00510330-SBPT
Permit-3	Von Karman Center	664	16782	Von Karman	1	Existing	Paid	12/16/2010					943			Office			0	#00514777-SBPT
Permit-4	Edwards Life Sciences	2	1212	Alton Pkwy	1	Existing	Paid	3/8/2011							540	Industrial to Warehouse			0	#00519702-SBP
Permit-5	Irvine Family Spa	64	2332	Barranca	1	Existing	Paid	3/30/2011					10,903			Office			0	Conversion of industrial to office (10,903 SF); #00521226-SBPT
Permit-6	Edwards Life Sciences	2	1452	Alton	1	Existing	Paid	6/9/2011					140			Office			0	Addition of 140 SF for facade/lobby/toliet remodel on north bldg elevation for 1452 Alton; #00524653-SBP

1. Demolition Credits are based on a specific fee rate assumed back in July, 2005. Actual credit based on future issuance date of demolition permit may be less.

ID	Project Name	IBC Project	Address	Street	Status Code	Dev Status	IBC Fee Status	IBC Fee Status Date	Quantities							Land Use	Residential Base Units	Density Bonus DU	Total Project DU	Notes
Permit-7	Equus & Innova Corporate Ctr	674	17352	Von Karman	1	Existing	Paid	7/11/2011					22,636			Industrial to Office			0	Plans consist of: (1) add 253 SF entry element to 1st floor (office - 2 conference rooms); (2) add 7,577 SF to 2nd floor (office); (3) convert 14,806 SF of industrial (manuf/WH) to office use on 2nd floor mezzanine. Overall bldg SF increases from 91,534 SF to 99,364 SF. IBC fees due = $ 85,619.75; #00527059-SBP
Permit-8	Edwards Life Sciences	2	1	Edwards	1	Existing	Paid	9/20/2011							1,545	Industrial to Warehouse			0	1,545 SF addition of industrial space; #00531427-SBP
Permit-9	MacArthur Medical Campus	609	1400	Reynolds	1	Existing	Paid	10/4/2011					3,000			Industrial to Office			0	Converting a total of 3,751 SF of existing med off use into lt manuf uses w/in the bldg in order to expand 3,000 square feet (call center office); #00532276-SBPT
Permit-10	N/A	447	2900	McCabe	1	Existing	Paid	11/18/2011					2,017			Industrial to Office			0	2,017 SF conversion of warehouse to office- 2,017 SF x $3.95/SF = $7,967.15 due; #00535026-SBPT
Permit-11	E-Bogu Martial Arts School	72	1581	Browning	1	Existing	Paid	1/17/2012					897	775		Industrial to Office			0	Converting 897 SF of ind to off use & adding 775 SF ind. IBC fees due = $4,705.65; #00536633-SBP
Permit-12	N/A	618	1672	Reynolds	1	Existing	Paid	3/14/2012					1,420			Industrial to Office			0	Convert 1,239 SF of existing ind to office use, add 181 SF of new office SF for an improved entrance/lobby area. IBC fee due = $5,684.35; #00540939-SBP
Permit-13	N/A	456	1400	McGaw	1	Existing	Paid	4/10/2012					1,148			Industrial to Office			0	Convert 175 SF of WH to off & 798 SF of existing WH to manuf use at 1400 McGaw. Existing LU: 2,670 SF off & 10,830 SF WH & 126 SF ZP. Proposed: 2,845 SF off, 798 SF manuf, 9,857 SF WH & 9 SF ZP. IBC fees due = $691.25; #00542555-SBPT
Permit-14	N/A	455	1392	McGaw	1	Existing	Paid	4/25/2012							715	Industrial to Warehouse			0	#00543308-SBPT
Permit-15	Edwards Life Sciences	2	1402	Alton	1	Existing	Paid	7/19/2012					350			Office			0	Add 350 SF office on 2nd fl by extending slab near west stairway at 1402 Alton; #00549377-SBP
Permit-16	N/A	677	17462	Von Karman	1	Existing	Paid	11/13/2012							9,840	Industrial to Warehouse			0	Construction of 9,840 warehouse mezzanine. Increases Industrial from 80,754SF to 90,594SF and reduces ZP from 19,694SF to 16,287SF. ;#00558205-SBPT
Permit-17	N/A	385	1822	Langley	1	Existing	Paid	2/5/2013					3,273			Industrial to Office			0	Building previously destroyed by fire, and rebuilt as follows: 1st floor: 2,708 SF office, 8,781 SF manuf., 1,831 SF ware; 2nd floor: 950 SF office, 3,931 SF ware. Total building is 18,201 SF. #00562535-SBP
Permit-18	N/A	525	16871	Millikan	1	Existing	Paid	2/8/2013					600			Industrial to Office			0	#00564394-SBPT
Permit-19	3M Dental Products	478	2111	McGaw	1	Existing	Paid	3/20/2013							6,752	Industrial to Warehouse			0	Approved assuming concurrent request for 6,752 SF warehouse mezzanine addition would be built. Mezzanine permit was never pulled.; #00567314-SBP
Permit-20	N/A	445	2569	McCabe	1	Existing	Paid	4/2/2013					207			Office			0	Added 207 SF office to a new total of 23,687 SF;#00568649-SBP
Permit-21	Edwards Life Sciences	2	1402	Alton	1	Existing	Paid	7/10/2013					5,881			Industrial to Office			0	Conversion of 5,881 SF of manufacturing space to office space at 1402 Alton; #00576671-SBPT
Permit-22	Glidewell Implant R&D Facility	245	2181	Dupont	1	Existing	Paid	9/12/2013					2,950			Industrial to Office			0	Approved addition of 2,950 SF office on 2nd floor mezzanine.; #00582419-SBP
Permit-23	My Montesorri Childcare	20	16601	Armstrong	1	Existing	Paid	10/21/2013					24,457			Industrial to Childcare (Office)			0	My 1st Montessori Preschool; CUP approved conversion of existing 35,337 SF off/ind bldg to 24,457 SF childcare facility (office trip generator); #00586597-SBP
Permit-24	N/A	198	17992	Cowan	1	Existing	Paid	12/27/2013							800	Industrial to Warehouse			0	Per 00588730-CASF, 800 SF warehouse mezzanine addition; #00594393-SBP

1. Demolition Credits are based on a specific fee rate assumed back in July, 2005. Actual credit based on future issuance date of demolition permit may be less.

ID	Project Name	IBC Project	Address	Street	Status Code	Dev Status	IBC Fee Status	IBC Fee Status Date	Quantities							Land Use	Residential Base Units	Density Bonus DU	Total Project DU	Notes
Permit-25	N/A	700	18651	Von Karman	1	Existing	Paid	12/30/2013					367			Office			0	New 367 SF office within the building; #00588479-CTIS
Permit-26	Hilton Garden Inn Hotel	565	2381	Morse	1	Existing	Paid	2/13/2014		168						Ext. Stay Hotel			0	The demolition of the entire 30,000 SF office building was issued in Feb 2014. The SF FEE CREDIT for this building equated to $171,600 or 30,000 SF; #00597988-SBPF
Permit-27	N/A	65	2400	Barranca	1	Existing	Paid	2/14/2014					20,508			Industrial to Office			0	OFFICE TI WITH A OCCUPANCY. NEW INTERIOR ELEVATOR WITH ROOF PENETRATION. Tenant: Emerson Process Manangement; #00597152-SBPT; 00590188-CTIS
Permit-28	N/A	220	17392	Daimler	1	Existing	Paid	5/9/2014					2,979			Industrial to Office			0	Convert 2,979 SF of Industrial to Office;#00604424-SBPT
Permit-29	Spellbound	297	17192	Gillette	1	Existing	Paid	5/28/2014					1,170			Industrial to Office			0	Per #00602164-CTI, an office TI to increase Office to 3,168 SF and Industrial to 11,645 SF; #00606287-SBPT
Permit-30	Edwards Life Sciences	2	1431	McGaw	1	Existing	Paid	6/2/2014					22,050		5,570	Office and Warehouse			0	Replacement 27,620 SF BRC bldg approved for 22,050 SF Off & 5,570 SF WH (ventilated animal penning area), demolition of bldg processed separately; #00603745-SBP
Permit-31		700	18651	Von Karman	1	Existing	Paid	7/7/2014						23,807		Industrial to Manufacturing			0	#00593637-CASF: 23,807 SF manf. mezzanine addition; AND conversion of 20,641 SF warehouse to manuf.; #00609631-SBP
Permit-32	Display It	21	16680	Armstrong	1	Existing	Paid	8/15/2014					2,469			Industrial to Office			0	Permit coverts 2,469 SF of Industrial use to Office use, thereby increasing office from 8,484 SF to 10,953 SF. The remaining square footage is 73,903 SF of Industrial use; #00613451-SBP
Permit-33	Douglas Plaza - Tower 17	703	18881	Von Karman	1	Existing	Paid	10/20/2014					123			Office			0	Accessory Deli will be enlarged from 783 SF to 906SF; #00619268-SBP
Permit-34	Edwards Life Sciences	2	1411	McGaw	1	Existing	Paid	12/19/2014					97,664		15,688	Office and Warehouse			0	Per 00593571-CNEW, E2 Building, 1411 McGaw (attached to 1441 McGaw) is comprised of 97,664 SF office and 15,688 SF warehouse; #00593571-CNEW
Permit-35	Irvine Concourse	413	1970	Main	1	Existing	Paid	2/26/2015							200	Warehouse			0	Generator Enclosure in Parking Garage 200 SF; #00628249-SBP
Permit-36	Alton Self Storage	14	2215	Alton Pkwy	1	Existing	Paid	3/19/2015							215,651	Warehouse			0	This project consists of the build-out of a mini-warehouse from an existing shell industrial building. An existing SF Credit of $3,344.13 has been applied to reduce the Gross IBC Fee; #00630971-SBP
Permit-37	Pro Source	461	1672	McGaw	1	Existing	Paid	3/26/2015					179			Industrial to Office			0	Per #00625128-CTTI modify to 3,286 SF Office and 8,270 Warehouse; #00631016-SBPT
Permit-38	McKinlry	45	17611	Armstrong	1	Existing	Paid	4/13/2015					4,426			Industrial to Office			0	The building had 5,214 square feet of office and 16,098 square feet of manufacturing. The applicant submitted 00619379-CASF to provide 9,460 square feet of office and 13,418 square feet of warehouse. A total of $24,650.18 in IBC fees is due; #00632886-SBP
Permit-39	N/A	276	17752	Fitch	1	Existing	Paid	5/20/2015					1,390			Industrial to Office			0	Per #00631430-CTIS, convert portion of existing warehouse to office use and demolish 138 SF of warehouse. Office to be 5,471 SF with 15,854 SF Warehouse; #00637341-SBPT
							39	TOTAL	0	168	0	0	235,910	24,582	257,525		0	0	0	

Discretionary IBC Projects Approved between July 31, 2010 and July 31, 2015 (IBC Fee Estimates based on July 1, 2016 IBC Fee Amounts)

ID	Project Name	IBC Project #	Address	Street	Status Code	Development Status	IBC Fee Status	IBC Fee Status Date	Quantities							Land Use	Residential Base Units	Density Bonus DU	Total Project DU	Notes
									DU	Ext-Stay (Rms)	Hotel (Rms)	Retail (SF)	Office (SF)	Ind-Mix (SF)	M.Ware (SF)					

1. Demolition Credits are based on a specific fee rate assumed back in July, 2005. Actual credit based on future issuance date of demolition permit may be less.

ID	Project Name	IBC Project	Address	Street	Status Code	Dev Status	IBC Fee Status	IBC Fee Status Date	Quantities							Land Use	Residential Base Units	Density Bonus DU	Total Project DU	Notes
Disc-1	Milani Apartments (formerly Martin St Apts.)	702	18831	Von Karman	6	Approved	Not Paid	N/A	287							Residential	229	58	287	Approval: November 2014
Disc-2a	Irvine Gateway (formerly Irvine Lofts/Kilroy)	671	17150	Von Karman	3	Approved	Paid	12/14/2015	363							Residential	276	87	363	Approval: December 2011
Disc-2b	Irvine Gateway (formerly Irvine Lofts/Kilroy)	671	17150	Von Karman	6	Approved	Not Paid	N/A	71							Residential	71		71	Approval: December 2011
Disc-3	Elements (formerly ITC/Greenlaw/Campus Verde)	56 & 97	2601	Campus	6	Approved	Not Paid	12/12/2014	900							Residential	720	180	900	Approval: December 2014; Demo SF Credits from IBC Projects #98 and #658 Remaining 700 units are Paid for and are shown as ID - Pre-8
Disc-4	16103 Derian (formerly 17275 Derian)	235	16103	Derian	5	Approved	Paid	3/17/2016	80							Residential	66	14	80	Approval: February 2015 LU will be included for fee calc, but the dev will not be subject to new fees
Disc-5	360 Fusion (formerly Murphy Apts)	582	2852	McGaw	5	Approved	Paid	2/22/2016	280							Residential	224	56	280	Approval: October 2014 LU will be included for fee calc, but the dev will not be subject to new fees
Disc-6	Main and Jamboree Apartments	431	2700	Main	5	Approved	Paid	11/3/2016	388							Residential	310	78	388	Approval: December 2014 LU will be included for fee calc, but the dev will not be subject to new fees
Disc-7	Pistoia Apartments	238	17422	Derian	6	Approved	Not Paid	N/A	371							Residential	297	74	371	Approval: July 2015
Disc-8	2152-2182 Alton	1	2152-2182	Alton	4	In Process / Pending	Not Paid	N/A	357							Residential	286	71	357	Approval: May 2016
Disc-9	17822 Gillette	307	17822	Gillette	4	In Process / Pending	Not Paid	N/A	137							Residential	137	0	137	Approval: Feb 2016
								TOTAL	3,234	0	0	0	0	0	0		2,616	618	3,234	

Pending Project - Fees Unpaid

ID	Project Name	IBC Project #	Address	Street	Status Code	Development Status	IBC Fee Status	IBC Fee Status Date	Quantities							Land Use	Residential Base Units	Density Bonus DU	Total Project DU	Notes
									DU	Ext-Stay (Rms)	Hotel (Rms)	Retail (SF)	Office (SF)	Ind-Mix (SF)	M.Ware (SF)					
Pend-1	Campus and Von Karman Apartments	N/A	2171-2361 Campus and 2192, 2222, 2302 Martin		4	In Process / Pending	Not Paid	N/A	876							Residential	701	175	876	
Pend-2	2055 Main		2055	Main	4	In Process / Pending	Not Paid	N/A	179							Residential	143	36	179	
Pend-3	2525 Main		2525	Main	4	In Process / Pending	Not Paid	N/A	272							Residential	217	55	272	
Pend-4	2660 Barranca/16542 Millikan		2660 Barranca/16542 Millikan		4	In Process / Pending	Not Paid	N/A	180							Residential	180		180	
Pend-5	17811 Gillette		17811	Gillette	4	In Process / Pending	Not Paid	N/A	75							Residential	75		75	
Pend-6	17861 Cartwright		17861	Cartwright	4	In Process / Pending	Not Paid	N/A	54							Residential	54		54	
								TOTAL	1,636	0	0	0	0	0	0		1,370	266	1,636	

Pre Application - Fees Unpaid

ID	Project Name	IBC Project #	Address	Street	Status Code	Development Status	IBC Fee Status	IBC Fee Status Date	Quantities							Land Use	Residential Base Units	Density Bonus DU	Total Project DU	Notes
									DU	Ext-Stay (Rms)	Hotel (Rms)	Retail (SF)	Office (SF)	Ind-Mix (SF)	M.Ware (SF)					
Pre-ap1	2602 McGaw		2602	McGaw	4	In Process / Pending	Not Paid	N/A	120							Residential	120		120	

1. Demolition Credits are based on a specific fee rate assumed back in July, 2005. Actual credit based on future issuance date of demolition permit may be less.

ID	Project Name	IBC Project	Address	Street	Status Code	Dev Status	IBC Fee Status	IBC Fee Status Date	Quantities							Land Use	Residential Base Units	Density Bonus DU	Total Project DU	Notes
								TOTAL	120	0	0	0	0	0	0		120	0	120	

Development Agreements for IBC Developments (Central Park West and Park Place are not included in the fee calculation and are not subject to 2015 Fees)

ID	Project Name	IBC Project #	Address	Street	Status Code	Development Status	IBC Fee Status	IBC Fee Status Date	Quantities							Land Use	Residential Base Units	Density Bonus DU	Total Project DU	Notes
									DU	Ext-Stay (Rms)	Hotel (Rms)	Retail (SF)	Office (SF)	Ind-Mix (SF)	M.Ware (SF)					
DA-1-1	Central Park West (CPW) - Existing	338	401	Rockefeller	1	Built/Existing	Paid		646							Residential	646		646	
DA-1-2	Central Park West (CPW) - Permits Issued	338	401	Rockefeller	2	Under Const.	Paid		16							Residential	16		16	
DA-1-3	Central Park West (CPW) - Approved Res. Units	338			6	Approved	Unpaid - Demo Credit Remaining		613							Residential	613		613	
DA-1-4	Central Park West (CPW) - Retail	338			6	Approved	Unpaid - Demo Credit Remaining		0			26,688				Residential / Retail			0	
								TOTAL	1,275	0	0	26,688	0	0	0		1,275	0	1,275	
DA-2-1	18582 Teller (HCG)	501	2722	Michelson	7	Demolished	Unpaid - Demo Credit Remaining		0				15,781			Office			0	
DA-2-2	18582 Teller (HCG)	501			7	Demolished	Unpaid - Demo Credit Remaining		0					104,519		Industrial			0	
DA-2-3	2722 Michelson (HCG)	501			7	Pending Demo	Unpaid - Demo Credit Remaining		0				25,828			Office			0	
DA-2-4	2722 Michelson (HCG)	501			7	Pending Demo	Unpaid - Demo Credit Remaining		0					143,727		Industrial			0	
DA-2-5	Hines CA Green (HCG)	501			6	Approved	Not Paid		0				785,000			Office			0	Option to pay lower prevailing fee, based on DA
DA-2-6	Hines CA Green (HCG)	501			6	Approved	Not Paid		0			15,500				Retail			0	Option to pay lower prevailing fee, based on DA
								TOTAL	0	0	0	15,500	826,609	248,246	0				0	
DA-3-1	Park Place (Res. Site 1 - Future)	503	3333	Michelson	6	Approved	Not Paid		267							Residential	267		267	Only 267 residential units to be paid. 360 Affordable units at Villa
DA-3-2	Park Place (Res. Site 1 - Vireo Apts.)	503			6	Approved	Not Paid		520							Residential	520		520	
DA-3-3	Park Place (Res. Site 1 (TIC Apts.)	503			2	Under Const.	Paid		989							Residential	861	128	989	Per Bill Jacobs: Remainder of 360 DB units approved for Park Place is 128 units within 989 Unit TIC project
DA-3-4	Park Place (BOSA) Res. Site 1 (Density Bonus)	503			1	Existing	Paid		232							Residential		232	232	Per Bill Jacobs: Corrected Park Place Project names- Site 1 is Bosa- 232 DB Units
DA-3-5	Park Place (Villa Sienna)	503	20	Palatine	1	Existing	Paid		1226							Residential	1226		1,226	
DA-3-6	Park Place (Villa Sienna Affordable)	503	20	Palatine	1	Existing	Paid		216							Residential	216		216	
DA-3-7	Park Place (Hotel)	503			1	Existing	Paid				190					Hotel			0	
DA-3-8	Park Place (Office)	503			6	Approved	Not Paid						2,629,820			Office			0	
DA-3-9	Park Place (Retail)	503			6	Approved	Not Paid					122,562				Retail			0	
DA-3-10	Park Place (Health Club)	503			6	Approved	Not Paid						45,000			Office			0	
								TOTAL	3,450	0	190	122,562	2,674,820	0	0		3,090	360	3,450	
DA-4-1	Avalon Apartments I	18	2777	Alton	1	Existing	Paid		279							Residential	224	55	279	
DA-4-2	Avalon Apartments I	18	2777	Alton	3	Approved	Paid		1							Residential		1	1	

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ID	Project Name	IBC Project	Address	Street	Status Code	Dev Status	IBC Fee Status	IBC Fee Status Date	Quantities							Land Use	Residential Base Units	Density Bonus DU	Total Project DU	Notes
DA-4-3	Avalon Apartments II	334	16901	Jamboree	1	Existing	Paid		179							Residential	143	36	179	
DA-4-4	Avalon Apartments III	530	16952	Millikan	2	Under Const.	Paid		156							Residential	126	30	156	
								TOTAL	615	0	0	0	0	0	0		493	122	615	
DA-5	2851 Alton Condos	19	2851	Alton	6	Approved	Not Paid		170			0				Residential	170		170	

Status Codes	
1	Existing by July 31, 2015 (Fees Paid)
2	Under Construction (Fees Paid)
3	Approved (Fees Paid)
4	In Process (Fees not paid)
5	Approved (Fees Paid after 07/31/15 deadline)
6	Approved (Fees not Paid)
7	Demolished / Pending Demolition (Fees not paid, pending demolition credit)

1. Demolition Credits are based on a specific fee rate assumed back in July, 2005. Actual credit based on future issuance date of demolition permit may be less.