

**PARK AND RECREATION FACILITIES  
DEVELOPMENT IMPACT FEE  
JUSTIFICATION STUDY  
CITY OF COSTA MESA**

AUGUST 4, 2015

***Prepared by:***

DAVID TAUSSIG & ASSOCIATES, INC.  
5000 BIRCH STREET, SUITE 6000  
NEWPORT BEACH, CALIFORNIA 92660  
(800) 969-4382

Public Finance  
Public Private Partnerships  
Urban Economics

---

Newport Beach  
Riverside  
San Francisco  
San Jose  
Dallas, Texas

# TABLE OF CONTENTS

SECTION	PAGE
<b>EXECUTIVE SUMMARY</b> .....	<b>1</b>
<b>I. INTRODUCTION</b> .....	<b>1</b>
<b>II. LEGAL REQUIREMENTS TO JUSTIFY DEVELOPMENT IMPACT FEES</b> .....	<b>2</b>
<b>III. DEMOGRAPHICS</b> .....	<b>8</b>
<b>IV. PARK AND RECREATION FACILITIES</b> .....	<b>11</b>
<b>V. METHODOLOGY UTILIZED TO CALCULATE DEVELOPMENT IMPACT FEES</b> .....	<b>17</b>
<b>APPENDIX A</b> MAP OF VACANT LAND SALES	
<b>APPENDIX B</b> CITY OF ENCINITAS – ENCINITAS COMMUNITY PARK CONSTRUCTION COST DATA	
<b>APPENDIX C</b> JARP DISTRICT – HORSESHOE LAKE PARK CONSTRUCTION COST DATA	
<b>APPENDIX D</b> JARP DISTRICT – VETERAN'S MEMORIAL PARK CONSTRUCTION COST DATA	
<b>APPENDIX E</b> CITY OF LAKE FOREST – SPORTS PARK	
<b>APPENDIX F</b> CITY OF LAGUNA NIGUEL – CROWN VALLEY PARK	
<b>APPENDIX G</b> CITY OF PASADENA – DESIDERIO PARK CONSTRUCTION COST DATA	
<b>APPENDIX H</b> CITY OF REDONDO BEACH – HEART PARK CONSTRUCTION COST DATA	
<b>APPENDIX I</b> CITY OF SAN MARCOS – BRADLEY PARK CONSTRUCTION COST DATA	
<b>APPENDIX J</b> CITY OF TUSTIN – TUSTIN LEGACY PARK CONSTRUCTION COST DATA	

---

## **EXECUTIVE SUMMARY**

---

In order to adequately plan for new development and identify the public park and recreation facilities and costs associated with mitigating the direct and cumulative impacts of new development, David Taussig & Associates, Inc. ("DTA") was retained by the City of Costa Mesa (the "City") to prepare an AB 1600 Fee Justification Study (the "Park Fee Study"). The Park Fee Study is intended to comply with Section 66000 *et. seq.* of the Government Code (the "Act" or "AB 1600"), which was enacted by the State of California in 1987, by identifying the additional public park and recreation facilities required by new development ("Future Park Facilities") and determining the level of fees that may be imposed to pay the costs of the Future Park Facilities. Fee amounts have been determined that will finance park and recreation facilities at the standard established in the City's General Plan, or 4.26 acres of improved park and recreation facilities for every 1,000 new residents. The Future Park Facilities and estimated land acquisition and associated construction costs per residential dwelling unit are identified in Section IV of the Park Fee Study. A description of the methodology used to calculate the fees is included in Section V. All new residential development may be required to pay its "fair share" of the cost of the new infrastructure through the development fee program.

### **ORGANIZATION OF THE REPORT**

Section I of this report provides an introduction to the Park Fee Study including background information on development fee financing. Section II provides an overview of the legal requirements for implementing and imposing the fee amounts identified in the Park Fee Study. Section III includes a discussion of household sizes, or persons per household, for residential land uses within the City. Section IV includes a description of the Future Park Facilities needed to serve new residential development that are eligible for funding by the impact fees, including estimated costs, offsetting revenues, net costs to the City and costs attributable to new residential development. Section V discusses the findings required under the Mitigation Fee Act and requirements necessary to be satisfied when establishing, increasing or imposing a fee as a condition of new residential development, and satisfies the nexus requirements for the Future Park Facilities. In addition, Section V contains the description of the methodology used to determine the fees. Appendix A includes a map showing the location of the properties comprising the vacant land sale data employed in the Park Fee Study. Appendices B – J identify the park and recreation facilities cost data employed in the Park Fee Study.

### **IMPACT FEE SUMMARY**

The recommended Future Park Facilities fee amounts are summarized in Table ES-1 below. Table ES-1 includes two fee level alternatives developed by City staff that reflect historical and projected rates of parkland acquisition. Fees within this Park Fee Study reflect a range of fee levels that may be imposed on new residential development depending upon the residential dwelling unit type.

**TABLE ES-1  
DEVELOPMENT IMPACT FEE SUMMARY**

FACILITY	RESIDENTIAL DEVELOPMENT			
	SINGLE FAMILY (\$ PER UNIT)	MULTI-FAMILY (\$ PER UNIT)	APARTMENT	
			<50 UNIT PROJECTS (\$ PER UNIT)	>=50 UNIT PROJECTS (\$ PER UNIT)
Park and Recreation Facilities				
Alternative 1 (Historical Parkland Acquisition <sup>1</sup> )	\$11,285.19	\$8,777.37	\$10,597.56	\$10,597.56
Alternative 2 (Projected Parkland Acquisition <sup>2</sup> )	\$18,006.38	\$14,004.96	\$14,004.96	\$5,056.61 <sup>3</sup>

<sup>1</sup> Based on the City's rate of parkland acquisition from 2006 through 2014 which results in park and recreation facilities costs of \$949,500 per acre.  
<sup>2</sup> Based on the City's projected rate of parkland acquisition which results in park and recreation facilities costs of \$1,515,000 per acre.  
<sup>3</sup> Fee for apartment projects with 50 or dwelling units adjusted (i) in consideration of typical on-site amenities, (ii) persons per household case study for an existing greater than 50 dwelling unit apartment project, and (iii) citywide distribution of apartment dwelling unit type (i.e., studio, 1 bedroom, 2 bedroom, and 3 or more bedroom dwelling units) for greater than 50 dwelling unit apartment projects.

---

## I. INTRODUCTION

---

In order to adequately plan for new residential development and identify the public park and recreation facilities and costs associated with mitigating the direct and cumulative impacts of new residential development, David Taussig & Associates, Inc. ("DTA") was retained by the City to prepare a new AB 1600 Fee Justification Study (the "Park Fee Study"). The need for this Park Fee Study is driven by anticipated residential development, including development on which the City's existing Quimby Act fee cannot generally be imposed, such as the redevelopment of existing property into multi-family uses without the subdivision of land.

The Park Fee Study is intended to comply with Section 66000 *et. Seq.* of the Government Code, which was enacted by the State of California in 1987, by identifying additional public park and recreation facilities required by new residential development ("Future Park Facilities") and determining the level of fees that may be imposed to pay the costs of the Future Park Facilities. Fee amounts have been determined that will finance park and recreation facilities at the standard established in the City's General Plan, or 4.26 acres of improved park and recreation facilities for every 1,000 new residents. The Future Park Facilities and estimated land acquisition and associated construction costs per residential dwelling unit are identified in Section IV of the Park Fee Study. All new residential development may be required to pay its "fair share" of the cost of the Future Park Facilities through the development fee program.

Based upon projections from the Center for Demographics Research, California State University, Fullerton (the "Center"), new residential development is expected to result in approximately 5,213 new residents within the City by 2040, representing an approximate 4.7% increase compared to the Center's 2012 population estimate for the City. The City will need to expand its public park and recreation facilities to accommodate the impacts of this growth and the levy of impact fees in conformance with AB 1600 legislation will help finance new park and recreation facilities which are needed to mitigate these impacts. The following steps were incorporated in the Park Fee Study:

1. **Demographic Assumptions:** Identify future housing growth that will generate the increased demand for park and recreation facilities.
2. **Facility Needs and Costs:** Identify the amount and cost of park and recreation facilities required to meet the demands of new residential development. Facilities costs are discussed in Section IV.
3. **Cost Allocation:** Allocate these costs per new residential dwelling unit.
4. **Fee Schedule:** Calculate the fee per new residential dwelling unit.

---

## II. LEGAL REQUIREMENTS TO JUSTIFY DEVELOPMENT IMPACT FEES

---

Prior to World War II, development in California was held responsible for very little of the cost of public infrastructure. Public improvements were financed primarily through jurisdictional general funds and utility charges. It was not uncommon during this period for speculators to subdivide tracts of land without providing any public improvements, expecting the closest city to eventually annex a project and provide public improvements and services.

However, starting in the late 1940s, the use of impact fees grew with the increased planning and regulation of new development. During the 1960s and 1970s, the California Courts broadened the right of local government to impose fees on developers for public improvements that were not located on-site. More recently, with the passage of Proposition 13, the limits on general revenues for new infrastructure have resulted in new development being held responsible for a greater share of public improvements, and both the use and levels of impact fees have grown substantially. Higher fee levels were undoubtedly driven in part by a need to offset the decline in funds for infrastructure development from other sources.

The levy of impact fees is one authorized method of financing the public facilities necessary to mitigate the impacts of new development. A fee is "a monetary exaction, other than a tax or special assessment, which is charged by a local agency to the applicant in connection with approval of a development project for the purpose of defraying all or a portion of the cost of public facilities related to the development project..." (California Government Code, Section 66000). A fee may be levied for each type of capital improvement required for new development, with the payment of the fee typically occurring prior to the beginning of construction of a dwelling unit. Fees are often levied at final map recordation, issuance of a certificate of occupancy, or more commonly, at building permit issuance. However, Assembly Bill ("AB") 2604 (Torricco) which was signed into law in August 2008, encourages public agencies to defer the collection of fees until close of escrow to an end user in an attempt to assist California's then troubled building industry.

The authority of local governments to impose impact fees on development is derived from their police power to protect the health and welfare of citizens under the California Constitution (Article 11, Section 7). Furthermore, the California Mitigation Fee Act provides a prescriptive guide to establishing and administering impact fees based on "constitutional and decisional law." Development impact fees ("DIFs") were enacted under Assembly Bill 1600 by the California Legislature in 1987 and codified under California Government Code §66000 *et. seq.*, also referred to as the Mitigation Fee Act (the "Act" or "AB 1600").

AB 1600 defines local governments to include cities, counties, school districts, special districts, authorities, agencies, and other municipal corporations. Fees governed by the Act include development fees of general applicability, and fees negotiated for individual projects. The Act does not apply to user-fees for processing development applications or permits, fees governed by other statutes (e.g., the Quimby Act), developer agreements, or penalties, or fees specifically

excluded by the Act (e.g., fees collected pursuant to agreements with redevelopment agencies or various reimbursement agreements).

Public facilities that can be funded with impact fees are defined by the Act as "public improvements, public services, and community amenities." Government Code, §65913.8 precludes the use of DIFs to fund maintenance or services, with limited exceptions for very small improvements and certain temporary measures needed by certain special districts. In combination, these provisions effectively restrict the use of most impact fees to public capital improvements.

For general information, please see:

- ❖ "Exactions and Impact Fees in California: A Comprehensive Guide to Policy, Practice, and the Law," edited by William Abbott, et al., Solano Press Books, 2012 Third Edition.

The City has identified the need to levy development impact fees to pay for public park and recreation facilities. The development impact fees presented in this study will finance public park and recreation facilities for new development at the level established by the City in its General Plan. Upon the adoption of the Park Fee Study and required legal documents by the City Council, all new residential development will be required to pay its "fair share" of the cost of public park and recreation facilities through these development impact fees.

In 2006, Government Code Section 66001 was amended to clarify that a development impact fee cannot include costs attributable to existing deficiencies, but can fund costs used to maintain the existing level of service or meet an adopted level of service that is consistent with the general plan. This Park Fee Study for the City is intended to meet the nexus or benefit requirements of AB 1600, which mandates that there is a nexus between fees imposed, the use of the fees, and the development projects on which the fees are imposed.

Section 66000 et seq. of the Government Code requires that all public agencies satisfy the following requirements when establishing, increasing or imposing a fee as a condition of new development:

1. Identify the purpose of the fee. (Government Code Section 66001(a)(1))
2. Identify the use to which the fee will be put. (Government Code Section 66001(a)(2))
3. Determine that there is a reasonable relationship between the fee's use and the type of development on which the fee is to be imposed. (Government Code Section 66001(a)(3))
4. Determine how there is a reasonable relationship between the need for the public facility and the type of development project on which the fee is to be imposed. (Government Code Section 66001(a)(4))

5. Discuss how there is a reasonable relationship between the amount of the fee and the cost of the public facility or portion of the public facility attributable to the development on which the fee is imposed.

Identifying these items will enable a development impact fee to meet the nexus and rough proportionality requirements established by previous court cases. This section presents each of these items as they relate to the imposition within the City of the proposed development impact fees for public park and recreation facilities. Current state financing and fee assessment requirements only allow new development to pay for its fair share of new facilities' costs. Any current deficiencies resulting from the needs of existing development must be funded through other sources. Therefore, a key element to establishing legal development impact fees is to determine what share of the benefit or cost of the new facilities can be equitably assigned to existing development, even if the facilities have not yet been constructed. By removing this factor, the true impact of new development can be assessed and equitable development impact fees assigned.

**A. Purpose of the Fee (Government Code Section 66001(a)(1))**

Based upon projections from the Center for Demographics Research, California State University, Fullerton (the "Center"), new residential development is expected to result in approximately 5,213 new residents within the City by 2040. These future residents will create an additional demand for public park and recreation facilities that existing public park and recreation facilities cannot accommodate. In order to accommodate new residential development in an orderly manner, without adversely impacting the current quality of life in the City, additional public park and recreation facilities will need to be constructed.

It is the projected direct and cumulative effect of future residential development that has required the preparation of this Park Fee Study. Each new residential dwelling unit will contribute to the need for new public park and recreation facilities, and as such, the proposed impact fee will be charged to all future residential development, irrespective of location, in the City. While a significant portion of the City's future residential development can be characterized as "in fill" development projects, these projects contribute to impacts on public park and recreation facilities because they are an interactive component of a much greater universe of development located throughout the City. First, the residents associated with any new residential development in the City have access to and in fact may regularly utilize and benefit from the City's park and recreation facilities. Second, these residents may have chosen to purchase or rent the specific homes in which they reside partially as a result of the parks and other recreational opportunities located nearby. Third, the availability of park and recreation facilities throughout the City has a growth-inducing impact, in that it enhances the City's reputation as a great place to live, thereby attracting new development that may have otherwise gone elsewhere. As a result, all residential development projects in the City contribute to the cumulative need for new park and recreation facilities throughout the

City. The development impact fees, when collected, will be placed into a dedicated fund that will be used solely for the design, acquisition, installation, and construction of public park and recreation facilities and other appropriate costs to mitigate the direct and cumulative impacts of new residential development in the City.

The discussion in this subsection of the Park Fee Study sets forth the purpose of the development impact fee as required by Section 66001(a)(1) of the California Government Code.

**B. THE USE TO WHICH THE FEE IS TO BE PUT (GOVERNMENT CODE SECTION 66001(A)(2))**

The development impact fee will be used specifically for the design, acquisition, installation, and construction of the public park and recreation facilities discussed in Section IV of the Park Fee Study and related costs necessary to mitigate the direct and cumulative impacts of new residential development in the City. By directly funding these costs, the development impact fees will both enhance the quality of life for future City residents and protect their health, safety, and welfare.

The discussion presented in this subsection of the Park Fee Study identifies the use to which the development impact fee is to be put as required by Section 66001(a)(2) of the California Government Code.

**C. DETERMINE THAT THERE IS A REASONABLE RELATIONSHIP BETWEEN THE FEE'S USE AND THE TYPE OF DEVELOPMENT PROJECT UPON WHICH THE FEE IS IMPOSED (BENEFIT RELATIONSHIP) (GOVERNMENT CODE SECTION 66001(A)(3))**

As discussed in Section A above, it is the projected direct and cumulative effect of future residential development that has prompted the preparation of this Park Fee Study. Each residential dwelling unit will contribute to the need for new public park and recreation facilities. Even future "in fill" development projects, which may be adjacent to existing park and recreation facilities, contribute to impacts on such facilities because they are an interactive component of a much greater universe of development located throughout the City. Consequently, all residential new development within the City, irrespective of location, contributes to the direct and cumulative impacts of development on public park and recreation facilities and creates the need for new facilities to accommodate growth.

As set forth in Section V of the Park Fee Study, the fees will be expended for the design, acquisition, installation, and construction of new public park and recreation facilities identified in Section IV, as that is the purpose for which the DIF is collected. As previously stated, all new residential development creates either a direct impact on park and recreation facilities or contributes to the cumulative impact on park and recreation facilities.

For the foregoing reasons, there is a reasonable relationship between the design, acquisition, construction, and installation of the public park and recreation facilities and new residential development as required under Section 66001(a)(3) of the Mitigation Fee Act.

**D. DETERMINE HOW THERE IS A REASONABLE RELATIONSHIP BETWEEN THE NEED FOR THE PUBLIC FACILITY AND THE TYPE OF DEVELOPMENT PROJECT UPON WHICH THE FEE IS IMPOSED (IMPACT RELATIONSHIP) (GOVERNMENT CODE SECTION 66001(A)(4))**

As set forth in part A above, all new residential development contributes to the direct and cumulative impacts on public park and recreation facilities and creates the need for new facilities to accommodate growth. Also as previously stated, all new residential development within the City, irrespective of location, contributes to the direct and cumulative impacts of development on public park and recreation facilities and creates the need for new facilities to accommodate growth. Moreover, the public park and recreation facilities identified in Section IV are specifically a function of the number of projected future residents within the City and do not reflect any unmet needs of existing development.

For the reasons presented herein and in Section V, there is a reasonable relationship between the need for the public park and recreation facilities and all new residential development within the City as required under Section 66001(a)(4) of the Mitigation Fee Act.

**E. THE RELATIONSHIP BETWEEN THE AMOUNT OF THE FEE AND THE COST OF THE PUBLIC FACILITIES ATTRIBUTABLE TO THE DEVELOPMENT UPON WHICH THE FEE IS IMPOSED ("ROUGH PROPORTIONALITY" RELATIONSHIP) (GOVERNMENT CODE 66001(A))**

As set forth above, all new residential development in the City impacts public park and recreation facilities. Moreover, each individual residential development project and its related increase in population will adversely impact existing park and recreation facilities. Thus, imposition of the development impact fee to finance new public park and recreation facilities is an efficient, practical, and equitable method of permitting development to proceed in a responsible manner.

New development impacts the need for public park and recreation facilities directly and cumulatively. Even new development located adjacent to existing facilities will have access to and benefit from new public park and recreation facilities. Again, the design, acquisition, construction, and installation of the public parks and recreation facilities in Section IV are specifically a function of projected new residents within the City and do not reflect any unmet needs of existing development.

As set forth in part F below, the proposed development impact fee amounts are roughly proportional to the impacts resulting from new residential development. Thus there is a

reasonable relationship between the amount of the development impact fee and the cost of the public park and recreation facilities.

**F. AB 1600 NEXUS TEST AND APPORTIONMENT OF FACILITIES COSTS**

Section 66000 of the Government Code requires that a reasonable relationship exist between the need for public facilities and the type of development on which a development impact fee is imposed. The need for public park and recreation facilities is related to the level of service established in the City's General Plan, which varies in proportion to the persons per household ("PPH") generated by a particular residential land use.

DTA established fees for the following three residential land use categories to acknowledge the difference in PPH impacts from various residential land uses. The City will develop a table of general plan land use designations that link to the land use classifications used in this study for clarification and consistency with City zoning. This table will be made a part of the ordinance or resolution that will be adopted for the purpose of implementing this development impact fee program.

**TABLE II-1**

<i>Land Use Classification for Park Fee Study</i>
Single Family Residential ("SFR")
Multi-family Owner ("Multi-family")
Apartment

The costs associated with the public park and recreation facilities needed to serve new residential development are identified in Section IV. As mentioned above, the public park and recreation facilities costs per person drive the development impact fee amount for each land use classification and establish that there is a reasonable relationship between the need for public park and recreation facilities and the residential land use type characterizing the development on which a development impact fee is being imposed. Section V presents the nexus test and the analysis undertaken to apportion public park and recreation facilities costs to each residential land use classification.

---

### III. DEMOGRAPHICS

---

In order to determine the public park and recreation facilities needed to serve new development as well as establish fee amounts to fund such facilities, the City commissioned a demographics analysis from Stanley R. Hoffman Associates ("SRH"). SRH utilized Public Use Microdata Areas ("PUMA") data to estimate PPH for each residential land use type. Population and occupied households derived from the PUMA data for the Costa Mesa area are shown in Tables III-1 and III-2 below.

TABLE III-1

POPULATION AND HOUSEHOLD – OWNER OCCUPIED UNITS		
RESIDENTIAL DWELLING UNIT TYPE	PERSONS	HOUSEHOLDS
Mobile Home or Trailer	1,013	439
One-Family House Detached	35,500	12,476
One-Family House Attached	5,015	2,502
2 Apartments	347	119
3-4 Apartments	992	385
5-9 Apartments	513	293
10-19 Apartments	333	166
20-49 Apartments	111	94
50 or More Apartments	173	81
Boats	20	20
<b>Total</b>	<b>44,017</b>	<b>16,575</b>

**TABLE III-2**

<b>POPULATION AND HOUSEHOLD – RENTER OCCUPIED UNITS</b>		
<b>RESIDENTIAL DWELLING UNIT TYPE</b>	<b>PERSONS</b>	<b>HOUSEHOLDS</b>
Mobile Home or Trailer	159	121
One-Family House Detached	10,867	3,373
One-Family House Attached	4,109	1,510
2 Apartments	4,228	1,317
3-4 Apartments	15,208	4,572
5-9 Apartments	7,668	2,624
10-19 Apartments	7,360	3,047
20-49 Apartments	7,435	3,678
50 or More Apartments	6,226	3,111
Boats	26	26
<b>Total</b>	<b>63,286</b>	<b>23,379</b>

All One-Family House Detached and One-Family House Attached units are classified as SFR units. Owner occupied Apartments are classified as Multi-family units. Renter occupied Apartments are classified as Apartment units. Grouping the data accordingly results in the PPH shown in Table III-3 below.

**TABLE III-3**

<b>PPH</b>			
<b>RESIDENTIAL DWELLING UNIT TYPE</b>	<b>PERSONS</b>	<b>HOUSEHOLDS</b>	<b>PPH</b>
SFR	55,491	19,861	2.79
Multi-family	2,469	1,138	2.17
Apartment	48,125	18,349	2.62
<b>Total/Average</b>	<b>106,085</b>	<b>39,348</b>	<b>2.70</b>

In addition, City staff conducted a case study analysis of the PPH for large apartment projects using an existing apartment project with over one hundred (100) dwelling units. City staff

calculated PPH separately for studio, one bedroom, two bedroom, and three or more bedrooms. The results of this case study are shown in Table III-4 below.

**TABLE III-4**

<b>PPH AND EDUs LARGE APARTMENT PROJECT CASE STUDY</b>		
<b>RESIDENTIAL DWELLING UNIT TYPE</b>	<b>DISTRIBUTION<sup>1</sup></b>	<b>PPH</b>
Studio	9.5%	1.2000
1 Bedroom	45.5%	1.5000
2 Bedroom	40.6%	2.1000
3+ Bedroom	4.4%	2.8000
<b>Total/Weighted Average</b>	<b>100.0%</b>	<b>1.7723</b>
<sup>1</sup> Distribution based on all existing apartment projects within the City with 50 or more dwelling units.		

---

#### **IV. PARK AND RECREATION FACILITIES**

---

Government Code Section 66000, which codifies California's Mitigation Fee Act, requires that if impact fees are going to be used to finance public facilities, those facilities must be identified prior to the adoption of the fee. There are three basic methodologies that can be employed to determine the facilities to be financed. The first methodology, which is called a "Plan-Based Approach," is based on the existence of a "Facilities Plan" that lists the specific facilities necessary to serve future growth. The Facilities Plan utilized under this approach is usually prepared by a municipality's staff and/or consultants, often with community input, and is then adopted by the municipality's legislative body either prior to or at the same time the fee program is approved. The Facilities Plan also identifies the costs of the facilities listed, and these costs are in turn allocated based on the level of benefit to be received by projected future land uses anticipated to be developed within the time period being analyzed. In the case of the City, the only existing Park and Recreation Facilities Plan was prepared and adopted by the City Council in 2002 and is out of date. While the City is now working with the community to prepare a new Park and Recreation Facilities Plan, the completion of this Facilities Plan and its adoption by City Council is not imminent. As a result, a Plan-Based Approach is infeasible at this time.

A second methodology to identify facilities needs is the "Capacity-Based Approach," and is based on the magnitude of existing capacity or expanded capacity needed for a type of public facility in order to handle projected growth during the selected time period. This approach works best for facilities such as an existing water storage facility or sewer treatment plant where existing costs or facilities expansion costs necessary to serve future development are already known (and in the case of existing capacity, may have already been expended). This kind of fee is not necessarily dependent on a particular land use plan for future development, but is instead based on the cost per unit of constructing the remaining existing capacity in a facility, or the cost to expand such capacity, which can then be applied to any type of future development. However, the City has already determined that, based on a standard of 4.26 acres per 1,000 residents, there is no existing surplus of park and recreation facilities that is available to serve new development. Furthermore, the City has not determined what specific improvements could be added to existing park facilities to adapt them to use by a greater population of residents, nor the cost of such improvements, so insufficient information was available to employ the "Capacity-Based Approach" in this Park Fee Study.

A third approach is to utilize a facilities "standard" established for future development, against which facilities costs are determined based on units of demand from this development. This approach, which is often applied to park and recreation facilities when there is no existing Facilities Plan, establishes a generic unit cost for capacity, which is then applied to each land use type per unit of demand. This standard is not based on the cost of a specific existing or future facility, but rather on the cost of providing a certain standard of service, such as the 4.26 acres of park and recreation facilities per 1,000 residents established by the General Plan. This method has several advantages, including not requiring a municipality to know (i) the cost of a specific facility, (ii) how much capacity or service is provided currently (as the new standard does not

necessarily need to reflect the existing standard), or (iii) the size, site, or characteristics of specific future facilities.

In the case of the City, in which specific facility sites or sizes, or types of park and recreation improvements or facilities have not yet been determined, the City does intend to acquire (or require future development to provide on-site) 4.26 acres per 1,000 new residents, whether those residents are generated by Single Family, Multi-family, or Apartment dwelling units. As a result, a "Standards-Based Approach" was determined by the City and DTA to be the most appropriate methodology for purposes of calculating impact fees for the Park Fee Study. Since no specific park and recreation sites and/or facilities have been determined to-date, specific costs are not yet known. Consequently, it was necessary to estimate what anticipated land acquisition costs could be expected, as well as which types of improvements should be included in developing these future parks and the costs related to constructing these improvements. Further information on these improvement costs and types is provided below in Section IV.A, below.

**A. LAND ACQUISITION COSTS**

As the City is already substantially built out, it is anticipated that sites for new park and recreation facilities will be limited to the acquisition of small parcels of vacant or underutilized land, such as underutilized public facilities, surplus school property, or industrial property or low-density residential property on which existing uses could be cost-effectively demolished. Without knowing which specific sites will be acquired by the City, DTA conducted a survey of vacant sites within the City that have been purchased over the past twelve years, and calculated a weighted average price per acre. Table IV-1, below, reflects land use and acreage data, dates of sale, and sale prices per acre for the eight (8) vacant land parcels reported by LoopNet.com as having been sold within the City since 2003. Based on these data, the City will be utilizing an estimated land price of \$2,500,000 per acre as the cost of new parkland, with an annual price escalator applied on July 1<sup>st</sup> of each year, starting July 1, 2016, based on the change to the Los Angeles-Riverside-Orange County Consumer Price Index in the previous calendar year.

**TABLE IV-1**

VACANT LAND SALES CITY OF COSTA MESA				
DATE SOLD	PARCEL LOCATION <sup>1</sup>	SITE ACREAGE	TYPE OF USE	SALE PRICE PER ACRE
4/30/2009	2	0.76	Industrial	\$1,650,000
9/22/2008	6	1.61	Multifamily	\$3,226,667
12/31/2006	1	0.72	Commercial/Other	\$2,969,655
5/5/2006	5	0.42	Multifamily	\$2,744,384
6/8/2005	7	0.25	Multifamily	\$3,682,801
2/23/2004	8	0.24	Commercial/Other	\$2,534,389
7/14/2003	3	0.61	Retail	\$2,131,147
5/21/2003	4	0.76	Retail	\$1,578,947
<b>Weighted Average Sales Price per Acre</b>				<b>\$2,564,000</b>
<sup>1</sup> See Appendix A Source: LoopNet.com				

**B. PARK IMPROVEMENT TYPES AND COSTS**

As noted previously, the specific types of improvements/facilities to be constructed within future City parks have not yet been specifically identified, but are expected to be included in the City Park Facilities Plan that is currently being prepared by City staff, with the assistance of the community. In order to maintain as much flexibility as possible, City and DTA staff have prepared a generic list of facilities/improvements that could potentially be included within these future parks. The types of park facilities listed in Table IV-2 are expected to be financed, in whole or in part, through the levy of a development impact fee on all future residential development in the City.

**TABLE IV-2**

TYPES OF PARK IMPROVEMENTS TO BE FINANCED	
Amphitheatre	Picnic Tables
Ball Fields (Baseball, Football, Soccer, Multi-Use)	Playground (Tot Lot, Water Play)
Bike Paths	Recreation Center
Bike Rack	Restrooms
Community Events Center	Retaining Walls and Fencing
Concession Building	Security Lighting
Courts (Basketball, Horseshoe, Tennis, Volleyball)	Shade Structures
Demolition	Site Furniture
Drinking Fountains	Site Preparation
Grading / Earthwork	Skate park
Irrigation and Landscaping	Swimming Pool
Park Benches	Synthetic Turf Fields
Parking Lot/Paving	Trash Receptacles
Pedestrian Path/Trails	Utilities (Drainage, Sewer, Water, Gas, Electrical)
Permanent Sports Lighting	

In an effort to determine the appropriate cost of the types of public park and recreation facilities listed in Table IV-2, DTA collected park and recreation facilities cost information for recently constructed public parks in Southern California. These cost data are shown in Table IV-3 and were obtained from a park and recreation facilities cost database derived from other DTA park fee studies, as well as on-line and municipality-provided park cost information. While the source data for certain parks included design and other soft costs, the majority of the source data did not. Therefore, with the exception of Desiderio Park, for which it was not feasible to exclude design costs, the park and recreation facilities cost figures in Table IV-3 do not include design costs, meaning that they are generally conservative. Notably, the Cities of Encinitas, Lake Forest, and Laguna Niguel park construction costs are based on actual bids, while the construction costs for the other parks listed are estimates provided by the municipalities in which the parks were to be developed.

To determine the weighted average public park and recreation facilities construction cost per acre, the high and low construction cost estimates (Desiderio Park and Veteran's Memorial Park) were excluded from the computations because they appeared to be outliers. The resulting weighted average public park and recreation facilities construction cost is \$391,074 per acre and the City will be utilizing an estimated construction cost of \$390,000 per acre. As is the case for land acquisition costs, estimated park improvement/facilities costs will be adjusted on July 1<sup>st</sup> of

each year, starting July 1, 2016, based on the change to the Los Angeles-Riverside-Orange County Consumer Price Index in the previous calendar year. Detailed park and recreation facilities construction costs are included in Appendices B - J.

**TABLE IV-3**

<b>PARK AND RECREATION FACILITIES CONSTRUCTION COSTS</b>					
<b>PUBLIC AGENCY</b>	<b>PARK</b>	<b>YEAR</b>	<b>ACRES</b>	<b>ESTIMATED CONSTRUCTION COST</b>	<b>ESTIMATED CONSTRUCTION COST PER ACRE</b>
Encinitas	Encinitas Community Park	2012	44.0	\$13,927,642 <sup>1</sup>	\$316,537
Jurupa Area Rec and Parks District	Horseshoe Lake Park	2006	13.0	\$2,375,000	\$182,692
Jurupa Area Rec and Parks District	Veteran's Memorial Park	2006	9.98	\$1,487,750	\$149,073
Lake Forest	Sports Park	2013	86.20	\$35,888,810	\$416,344
Laguna Niguel	Crown Valley Park	2014	18.00	\$4,599,531	\$255,529
Pasadena	Desiderio Park	2014	3.80	\$2,410,000 <sup>3</sup>	\$634,211
Redondo Beach	Heart Park	2003	76.5	\$32,473,900 <sup>2</sup>	\$424,495
San Marcos	Bradley Park	2012	34.0	\$12,492,484	\$367,426
Tustin	Tustin Legacy	2014	31.50	\$16,816,265	\$533,850
<b>Weighted Average (Excluding High and Low Data Points)</b>					<b>\$391,074</b>
<sup>1</sup> Excludes \$5,250,000 for EIR, design, and development.					
<sup>2</sup> Excludes \$91,864,600 for remediation/site preparation.					
<sup>3</sup> Includes design costs.					

**C. PARK AND RECREATION FACILITIES COSTS**

**1. MAXIMUM PARK AND RECREATION FACILITIES COSTS**

Adding the \$2,500,000 per acre in land acquisition costs to the \$390,000 per acre in improvements costs yields a full cost for park and recreation facilities of \$2,890,000 per acre. Note, the City has no revenues (e.g., grants, general obligation bond proceeds, etc.) with which it can offset these facilities costs.

**2. ALTERNATIVE 1**

The City's ability to acquire parkland has been hampered for two reasons. One, the City has to-date imposed park fees pursuant to the Quimby Act which is not applicable to apartment projects. As a result, only forty percent (40.00%) of the residential dwelling units developed within the City since 2000 have paid park fees. In short, park fee revenues have been insufficient to acquire parkland in amounts consistent with the City's

goals. Two, there is a limited supply of vacant land remaining within the City. Since 2006, the City has acquired park land equivalent to twenty-two and thirty-eight hundredths percent (22.38%) of the potential park acreage it would have purchased had it expended the full component of park impact fees collected that were intended for land acquisition. Specifically, total park fee expenditures since 2006 have equaled \$15,494,816 which indicates that the City could have acquired and developed 5.36 acres of parkland (\$15,494,816 divided by \$2,890,000). The actual park acreage acquired since 2006 was only 1.2 acres, which equals 22.38% of the potential park acres that should have been acquired. Given a continuation of this practice by the City, the amount anticipated to be spent on land acquisition would be only 22.38% of \$2,500,000 per acre, or the equivalent of \$559,500 per acre for each of the 4.26 acres per 1,000 new residents. If this trend was to continue in the future, total adjusted parkland acquisition and recreation facilities costs would be \$949,500 per acre (\$559,500 for land acquisition plus \$390,000 for improvements).

### **3. ALTERNATIVE 2**

Alternative 2 recognizes that this Park Fee Study will establish a development impact fee for park and recreation facilities that will be applicable to all residential development, and therefore the City anticipates that there will be fee revenues sufficient to acquire parkland in the future at approximately twice the historical (2006 – 2014) rate, or forty-five percent (45.00%), resulting in the expenditure of an equivalent of \$1,125,000 per acre for each of the 4.26 acres per 1,000 new residents. Total adjusted parkland acquisition and recreation facilities costs projected under this scenario would be \$1,515,000 per acre (\$1,125,000 for land acquisition plus \$390,000 for improvements). In addition, Alternative 2 (i) caps the fee for apartment projects comprised of fewer than fifty (50) dwelling units at the fee level for Multi-family and (ii) substitutes the Alternative 1 land acquisition cost of \$559,500 per acre adjusted by an additional fifty percent (50.00%) for apartment projects with fifty (50) or more dwelling units in recognition that a DIF for Apartments has not previously been imposed and large apartment projects typically include on-site recreation amenities such as a recreation or community room, dog runs, pools, barbecues, etc. Total adjusted parkland acquisition and recreation facilities costs for apartment projects with 50 or more dwelling units would be \$669,750 per acre (\$559,500 for land acquisition multiplied by 0.50 (or \$279,750) plus \$390,000 for improvements).

Section V below shows the calculation of the development impact fees for park and recreation facilities for all three scenarios.

## V. METHODOLOGY UTILIZED TO CALCULATE DEVELOPMENT IMPACT FEES

Pursuant to the nexus requirements of Government Code 66000, a local agency is required to "determine how there is a reasonable relationship between the amount of the development impact fee and the cost of the public facility or portion of the public facility attributable to the development on which the fee is imposed." It is impossible to accurately determine the impact that a specific new residential unit will have on existing facilities. Predicting future residents' specific behavioral patterns, park, and health and welfare requirements is extremely difficult, and would involve numerous assumptions that are subject to substantial variances. Recognizing these limitations, the Legislature drafted AB 1600 to specifically require that a "reasonable" relationship be determined, not a direct cause and effect relationship. This reasonable relationship, which was discussed in detail in Section II of the Park Fee Study, is summarized in Table V-1.

**TABLE V-1**

PUBLIC PARK AND RECREATION FACILITIES AB 1600 NEXUS TEST	
Identify Purpose of Fee	Park and Recreation Facilities
Identify Use of Fee	The design, acquisition, installation, and construction of public park and recreation facilities, including parkland
Demonstrate how there is a reasonable relationship between the need for the public facility, the use of the fee, and the type of development project on which the fee is imposed	New residential development will generate additional residents who will increase the demand for active and passive park and recreation facilities within the City. Land will have to be purchased and improved to meet this increased demand, thus a reasonable relationship exists between the need for park and open space facilities and the impact of residential development. Fees collected from new development will be used exclusively for park and open space facilities identified in Section IV.

There are many methods or ways of calculating development impact fees, but they are all based on determining the cost of needed improvements and assigning those costs equitably to various types of development. Development impact fees in this study have been calculated utilizing a "standards-based" methodology. The fee levels are a function of (i) the City's existing park standard of 4.26 acres per 1,000 residents, (ii) the estimated cost per acre for new park and recreation facilities, and (iii) the estimated PPH. One global assumption utilized within this Park Fee Study for the allocation of costs between existing and new development relates to the allocation of costs based on the facilities standard. The public parks and recreation facilities described in Section IV are 100% allocated to new residential development because these facilities are specifically a function of projected new residents within the City and do not reflect any unmet needs or deficiency pertaining to existing development. The recommended fee levels and fee calculation methodologies are summarized in Tables V-2 and V-3 below.

**TABLE V-2**

PARK AND RECREATION ALTERNATIVE 1 DEVELOPMENT IMPACT FEES BASED ON HISTORICAL RATE OF PARKLAND ACQUISITION FROM 2006 - 2014				
(A)	(B)	(C)	(D)	(E)
RESIDENTIAL DWELLING UNIT TYPE	PPH	ACRES / 1,000 <sup>1</sup>	COST / ACRE	FEE
Single Family	2.79	4.26	\$949,500	\$11,285.19 <sup>2</sup>
Multi-family	2.17	4.26	\$949,500	\$8,777.37 <sup>2</sup>
Apartment	2.62	4.26	\$949,500	\$10,597.56 <sup>2</sup>

<sup>1</sup> Column C represents the General Plan standard of 4.26 park and recreation acres per 1,000 residents.  
<sup>2</sup> Fee equals Column B x Column C / 1,000 x Column D.

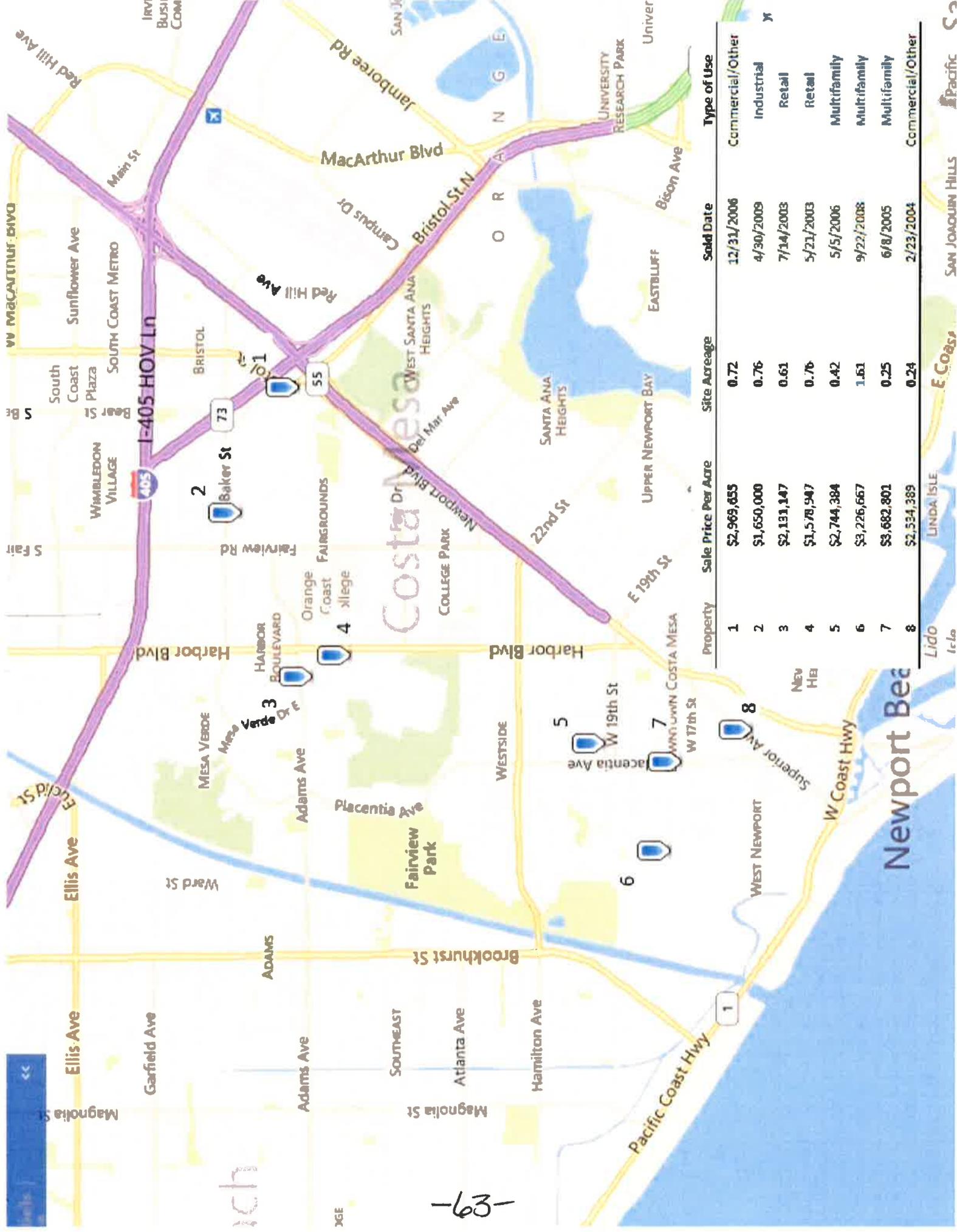
**TABLE V-3**

PARK AND RECREATION ALTERNATIVE 2 DEVELOPMENT IMPACT FEES BASED ON PROJECTED RATE OF PARKLAND ACQUISITION				
(A)	(B)	(C)	(D)	(E)
RESIDENTIAL DWELLING UNIT TYPE	PPH	ACRES / 1,000 <sup>1</sup>	COST / ACRE	FEE
Single Family	2.7900	4.26	\$1,515,000	\$18,006.38 <sup>2</sup>
Multi-family	2.1700	4.26	\$1,515,000	\$14,004.96 <sup>2</sup>
Apartment				
< 50 Project Dwelling Units	2.6200	4.26	\$1,515,000	\$14,004.96 <sup>3</sup>
>= 50 Project Dwelling Units	1.7723	4.26	\$669,750	\$5,056.61

<sup>1</sup> Column C represents the General Plan standard of 4.26 park and recreation acres per 1,000 residents.  
<sup>2</sup> Fee equals Column B x Column C / 1,000 x Column D.  
<sup>3</sup> Capped at fee level for Multi-family.

**APPENDIX A**

**MAP OF VACANT LAND SALES**



Property	Sale Price Per Acre	Site Acreage	Sold Date	Type of Use
1	\$2,969,655	0.72	12/31/2006	Commercial/Other
2	\$1,650,000	0.76	4/30/2009	Industrial
3	\$2,131,147	0.61	7/14/2003	Retail
4	\$1,578,947	0.76	5/21/2003	Retail
5	\$2,744,384	0.42	5/5/2006	Multifamily
6	\$3,226,667	1.61	9/22/2008	Multifamily
7	\$3,682,801	0.25	6/8/2005	Multifamily
8	\$2,534,389	0.24	2/23/2004	Commercial/Other

## APPENDIX B

### CITY OF ENCINITAS – ENCINITAS COMMUNITY PARK CONSTRUCTION COST DATA

**City of Encinitas**  
**Source: USS Cal Bid and Native Grow Nursery Bid (www.ci.encinitas.ca.us)**

**Summary**

	<b>Total Costs</b>
Land Acquisition	\$18,200,000
EIR, Design, and Development	\$5,250,000
Construction (USS Cal Builders)	
Park Amenities	\$11,216,788
Landscaping	\$2,710,855
Landscaping (Native Grow Nursery)	\$122,594
Park Acres	44.00
Construction Cost per Acre (Park Amenities only)	\$254,927
Landscaping Cost per Acre	\$64,397
Total Improvement Costs per Acre	\$319,324
Land Acquisition Costs per Acre	\$413,636

**Improvement/Construction Costs Detail**

<u>Description</u>	<u>Quantity</u>	<u>Unit Cost</u>	<u>Subtotal</u>	<u>Total</u>	<u>Grand Total</u>
Encinitas Community Park					\$13,927,642
<u>Construction</u>					
General Work				\$1,471,242.00	
Mobilization	1 LS	\$216,000.00	\$216,000.00		
Clear and Grub	1 LS	\$87,000.00	\$87,000.00		
Grading	164,100 CY	\$1.62	\$265,842.00		
Fine Grading	1,533,000 SF	\$0.11	\$168,630.00		
Soil Removal/Recompaction	32,000 CY	\$2.81	\$89,920.00		
Soil Reuse (Primary Soils Management Zone)	55,000 CY	\$9.35	\$514,250.00		
Storm Water Pollution Control/ SWPPP	1 LS	\$27,000.00	\$27,000.00		
Striping, Signage, & Painted Curb	1 LS	\$48,600.00	\$48,600.00		
Traffic Control	1 LS	\$54,000.00	\$54,000.00		
Utility Work				\$1,113,970.32	
Fire Hydrant Assembly	4 EA	\$5,562.00	\$22,248.00		
Reclaimed Water 1-1/2" PVC	220 LF	\$12.42	\$2,732.40		
Reclaimed Water 2" PVC	695 LF	\$15.12	\$10,508.40		
Reclaimed Water 12" PVC	3,035 LF	\$115.56	\$350,724.60		
Reclaimed Service 1-1/2"	2 EA	\$3,456.00	\$6,912.00		
Reclaimed Water Service 6"	1 EA	\$23,247.00	\$23,247.00		
Sewer 4" PVC	710 LF	\$48.60	\$34,506.00		
Sewer 6" PVC	1,240 LF	\$51.84	\$64,281.60		
Sewer 8" PVC	649 LF	\$92.88	\$60,279.12		
Sewer Cleanout	29 EA	\$648.00	\$18,792.00		
Sewer- Cut and Cap Existing Pump Station	1 EA	\$1,080.00	\$1,080.00		
Sewer Manhole	2 EA	\$6,307.20	\$12,614.40		
Water 1/2" PVC	980 LF	\$10.80	\$10,584.00		
Water 1" PVC	555 LF	\$11.88	\$6,593.40		
Water 2" PVC	320 LF	\$15.12	\$4,838.40		
Water 8" PVC	1,250 LF	\$75.60	\$94,500.00		
Water 12" PVC	2,735 LF	\$133.92	\$366,271.20		
Water- Remove Existing ACP	1,100 LF	\$5.40	\$5,940.00		
Water Service 1"	3 EA	\$3,990.60	\$11,971.80		
Water Service 2"	1 EA	\$5,346.00	\$5,346.00		
Drainage				\$1,544,243.40	
Atrium Drain	129 EA	\$248.40	\$32,043.60		
Bio-Retention Area (C-1.8, p22)	1 LS	\$183,600.00	\$183,600.00		
Bio-Retention Area (Dog Park)	1 LS	\$41,040.00	\$41,040.00		
Catch Basin and Grate	73 EA	\$1,431.00	\$104,463.00		
Catch Basin per SDRSD D-8	3 EA	\$2,997.00	\$8,991.00		
Curb Inlet	5 EA	\$5,076.00	\$25,380.00		
HDPE Storm Drain Pipe 18"	2,540 LF	\$64.80	\$164,592.00		
HDPE Storm Drain Pipe 24"	450 LF	\$77.76	\$34,992.00		
Headwall	3 EA	\$2,700.00	\$8,100.00		
Headwall w/ Trashrack	12 EA	\$3,888.00	\$46,656.00		
Headwall with Manifold	1 EA	\$4,050.00	\$4,050.00		
Junction Structure - APWA 331	3 EA	\$540.00	\$1,620.00		
Junction Structure - APWA 332	25 EA	\$702.00	\$17,550.00		
Manhole	5 EA	\$5,454.00	\$27,270.00		
Manhole - APWA 320/ Modified APWA 320	3 EA	\$9,558.00	\$28,674.00		

**Improvement/Construction Costs Detail - Continued**

<u>Description</u>	<u>Quantity</u>	<u>Unit Cost</u>	<u>Subtotal</u>	<u>Total</u>
Parkway Culvert APWA 151	11 EA	\$2,430.00	\$26,730.00	
Perforated Drain at Backstop (4")	570 LF	\$37.80	\$21,546.00	
Rip-Rap	3,125 SF	\$21.60	\$67,500.00	
Stormceptor	1 EA	\$49,194.00	\$49,194.00	
Storm Drain 6" PVC	6,800 LF	\$31.86	\$216,648.00	
Storm Drain 8" PVC	2,580 LF	\$35.91	\$92,647.80	
Storm Drain 10" PVC	145 LF	\$64.80	\$9,396.00	
Storm Drain 12" PVC	2,420 LF	\$54.00	\$130,680.00	
Storm Drain 54" rcp	366 LF	\$367.20	\$134,395.20	
Storm Drain Cleanout	11 EA	\$324.00	\$3,564.00	
Subdrain- Play Area	40 LF	\$59.40	\$2,376.00	
U-Channel 1'-6"	50 LF	\$27.00	\$1,350.00	
V-ditch 1'-6" Deep	1,185 LF	\$27.00	\$31,995.00	
V-Gutter	1,095 LF	\$24.84	\$27,199.80	
<b>Building, Fence, and Wall Improvements</b>				<b>\$3,643,256.00</b>
Building- South Concession/ Restroom	1 LS	\$525,000.00	\$525,000.00	
Building- North Restroom	1 LS	\$510,000.00	\$510,000.00	
Electrical- Main Service	1 LS	\$59,400.00	\$59,400.00	
Electrical- Site Conduits, Conductors, Trenching, Complete	1 LS	\$95,040.00	\$95,040.00	
Light Fixture 14'	58 EA	\$7,000.00	\$406,000.00	
Light Fixture (18' single head)	11 EA	\$8,835.00	\$97,185.00	
Light Fixture (18' double head)	2 EA	\$15,120.00	\$30,240.00	
Light Fixture (20' single head)	58 EA	\$10,044.00	\$582,552.00	
Light Fixture (20' double head)	10 EA	\$10,962.00	\$109,620.00	
Light Fixture- Bollard	4 EA	\$9,450.00	\$37,800.00	
Junction Box for Future Light	69 EA	\$1,252.00	\$86,388.00	
Fencing- Backstops at 2 Ballfields	1 LS	\$155,000.00	\$155,000.00	
Fencing- 6' HT. Chainlink	360 LF	\$37.80	\$13,608.00	
Fencing- 8' HT. Chainlink	1,340 LF	\$59.40	\$79,596.00	
Fencing- 20' HT. Chainlink	450 LF	\$145.80	\$65,610.00	
Fencing- Lodge Pole	115 LF	\$48.60	\$5,589.00	
Gate w/ Pilasters- Tubular Steel	1 LS	\$14,040.00	\$14,040.00	
Trash Enclosures	2 EA	\$31,054.00	\$62,108.00	
Wall- 18" HT. at Park Entry	70 LF	\$75.60	\$5,292.00	
Wall-18" Planter	300 LF	\$75.60	\$22,680.00	
Wall-4' HT. For Material Bin Storage	70 LF	\$86.40	\$6,048.00	
Wall 6' HT. Masonry w/ Pilaster	4,105 LF	\$135.00	\$554,175.00	
Wall- Cheek Wall At Stair	175 LF	\$86.40	\$15,120.00	
Wall- 6' HT. Masonry at Maintenance Yard	140 LF	\$135.00	\$18,900.00	
Wall- Planter/Ret., incl. Guard Rail where required	475 LF	\$145.80	\$69,255.00	
Wall- Seat Walls	45 LF	\$378.00	\$17,010.00	
<b>Site Improvements</b>				<b>\$2,478,849.48</b>
Asphalt Paving	2700 TON	\$100.00	\$270,000.00	
Bollards at Lot 'A'	7 EA	\$702.00	\$4,914.00	
Class II Base- Provide and Place	8,009 TON	\$23.76	\$190,293.84	
Class II Base- Place Onsite Material	6,529 TON	\$23.76	\$155,129.04	
Color Concrete Band 18" Wide	2105 LF	\$19.44	\$40,921.20	
Color Concrete Walkways	116,040 SF	\$9.18	\$1,065,247.20	
Concrete Mowcurb 6" Wide	6,750 LF	\$12.96	\$87,480.00	
Concrete Mowcurb 12" Wide	1,130 LF	\$16.20	\$18,306.00	
Concrete Stairs at Ball Fields	625 LF	\$54.00	\$33,750.00	
6" Curb/ Class II Base	8,350 LF	\$17.28	\$144,288.00	
6" Curb & Gutter/ Class II Base	3,670 LF	\$22.68	\$83,235.60	
6" Curb & Gutter w/block out/ Class II Base	1,600 LF	\$25.92	\$41,472.00	
Curb Ramp	25 EA	\$810.00	\$20,250.00	
Driveway Approach - SDRSD G-14A	1 EA	\$2,268.00	\$2,268.00	
Grass Pave2	1,480 SF	\$13.50	\$19,980.00	
Overlook w/ Seatwall, Conc. Band, & Interlocking Paver	1 LS	\$29,160.00	\$29,160.00	
Pavers	13,285 SF	\$9.18	\$121,956.30	
6" PCC Pavement	785 SF	\$8.10	\$6,358.50	
Simulated Bridges, Complete with Lodge Pole Fence, Stamped Concrete, and Flatwork	2 EA	\$7,020.00	\$14,040.00	
Stabilized Decomposed Granite Walkways w/ Curbing	9,245 SF	\$14.04	\$129,799.80	

-66-

**Improvement/Construction Costs Detail - Continued**

<u>Description</u>	<u>Quantity</u>	<u>Unit Cost</u>	<u>Subtotal</u>	<u>Total</u>
<b>Site Furnishings</b>				\$304,938.00
Bat Rack @ Dugouts	4 EA	\$2,700.00	\$10,800.00	
Bench @ Dugouts	4 EA	\$2,970.00	\$11,880.00	
Bench- Custom with Back	22 EA	\$1,620.00	\$35,640.00	
Bench- Custom without Back	6 EA	\$1,620.00	\$9,720.00	
Bike Rack	5 EA	\$810.00	\$4,050.00	
Bleacher w/ Guard Rail	4 EA	\$7,020.00	\$28,080.00	
BQ Unit Group	5 EA	\$702.00	\$3,510.00	
BQ Unit Single	10 EA	\$486.00	\$4,860.00	
Concrete Seating Pad- Accessible	7 EA	\$2,700.00	\$18,900.00	
Concrete Seating Pad	12 EA	\$2,700.00	\$32,400.00	
Picnic Tables	28 EA	\$1,458.00	\$40,824.00	
Picnic Pads (Large 327 SF)	8 EA	\$3,780.00	\$30,240.00	
Picnic Pads (Small 130 SF)	12 EA	\$1,512.00	\$18,144.00	
Pitching Rubber, Bases, Home Plate (Complete Set)	2 EA	\$5,940.00	\$11,880.00	
Pedestrian Drinking Fountain	4 EA	\$2,970.00	\$11,880.00	
Score Table	2 EA	\$1,890.00	\$3,780.00	
Trash / Recycle Receptacles (Install Only)	35 EA	\$810.00	\$28,350.00	
<b>Street Improvements</b>				\$100,564.74
Adjust Existing Facility to Grade	11 EA	\$702.00	\$7,722.00	
Asphalt Deeplift	450 LF	\$9.72	\$4,374.00	
Asphalt Dike (6")	30 LF	\$9.72	\$291.60	
Asphalt Grind and Overlay	165 SF	\$2.16	\$356.40	
Asphalt Paving	151 TON	\$102.60	\$15,492.60	
Class II Base	247 TON	\$23.76	\$5,868.72	
Concrete Alley Apron	1020 SF	\$6.48	\$6,609.60	
Concrete Cross Gutter	480 SF	\$6.48	\$3,110.40	
Concrete Driveway (w/8" PCC/6" AB)	2 EA	\$2,052.00	\$4,104.00	
Concrete Enhanced Paving @ Santa Fe Entry	208 SF	\$8.10	\$1,684.80	
Concrete Pedestrian Ramp	8 EA	\$449.28	\$3,594.24	
Concrete Sidewalk	2000 SF	\$4.86	\$9,720.00	
6" Curb/ Class II Base	180 LF	\$17.28	\$3,110.40	
6" Curb & Gutter/ Class II Base	595 LF	\$21.60	\$12,852.00	
6" Curb & Gutter (Rolled), Incl. Transitions/ Class II Base	36 LF	\$22.68	\$816.48	
Grass Pave2	225 SF	\$13.50	\$3,037.50	
Miscellaneous Relocations	1 LS	\$8,100.00	\$8,100.00	
Parkway Culvert	1 EA	\$2,430.00	\$2,430.00	
Sawcut	675 LF	\$10.80	\$7,290.00	
<b>Traffic Signal and Signage Improvements</b>				\$437,130.00
3" PVC Conduit	180 LF	\$27.00	\$4,860.00	
2" PVC Conduit	150 LF	\$27.00	\$4,050.00	
Signal Cables and Wires	1 LS	\$21,600.00	\$21,600.00	
6T Pull Box	1 EA	\$1,620.00	\$1,620.00	
6E Pull Box	1 EA	\$1,890.00	\$1,890.00	
5T Pull Box	1 EA	\$1,890.00	\$1,890.00	
5E Pull Box	2 EA	\$1,890.00	\$3,780.00	
Type 1A Pole and Foundation	1 EA	\$27,000.00	\$27,000.00	
Type 15TS Pole, Foundation, 15' Lum Arm	1 EA	\$27,000.00	\$27,000.00	
HPS Luminaire	1 EA	\$4,860.00	\$4,860.00	
SV-4-TB	1 EA	\$1,620.00	\$1,620.00	
SV-1-T	1 EA	\$1,620.00	\$1,620.00	
SP-1-T Ped. Head	1 EA	\$1,620.00	\$1,620.00	
SP-2-T Ped Head	1 EA	\$1,620.00	\$1,620.00	
Polara Audible Navigator PPB Assembly and System	8 EA	\$243,000.00	\$194,400.00	
Type E Loop Detector	22 EA	\$4,860.00	\$106,920.00	
Overhead Box Guard	1 EA	\$1,620.00	\$1,620.00	
Miscellaneous Equipment Modification	1 LS	\$12,960.00	\$12,960.00	
Miscellaneous Relocations/ Removals	1 LS	\$16,200.00	\$16,200.00	

**Improvement/Construction Costs Detail - Continued**

<u>Description</u>	<u>Quantity</u>	<u>Unit Cost</u>	<u>Subtotal</u>	<u>Total</u>
<u>Landscaping</u>				\$2,710,854.55
1 Gal. Container Planting (Install Only)	50,640 EA	\$1.94	\$98,241.60	
15 Gal. Tree	461 EA	\$129.60	\$59,745.60	
24" Box Tree	452 EA	\$259.20	\$117,158.40	
3" Mulch	4,325 CY	\$34.56	\$149,472.00	
Bio-Retention Planter Strips	6,280 SF	\$4.32	\$27,129.60	
Bio-Swale w/ Boulders, Pebbles at Parking Lot E	2240 SF	\$9.18	\$20,563.20	
Garden Buffer Bioswale w/ Boulders, Cobble	31295 SF	\$9.18	\$287,288.10	
Hydroseed Mix (Irrigated)	126,315 SF	\$0.45	\$56,841.75	
Hydroseed Mix (Non-irrigated)	329,375 SF	\$0.06	\$19,762.50	
Infield Mix	45,740 SF	\$1.30	\$59,462.00	
Irrigation (Complete)	1,154,545 SF	\$1.14	\$1,316,181.30	
Palm Brehea armata 5' B.T.	13 EA	\$3,780.00	\$49,140.00	
Palm Brehea armata 8' B.T.	7 EA	\$4,590.00	\$32,130.00	
Palm Brehea armata 10' B.T.	3 EA	\$5,400.00	\$16,200.00	
Palm Phoenix reclinata 10' B.T.	8 EA	\$5,940.00	\$47,520.00	
Palm Queen 15' B.T.	35 EA	\$540.00	\$18,900.00	
Palm Queen 18' B.T.	20 EA	\$432.00	\$8,640.00	
Palm Queen 20' B.T.	16 EA	\$432.00	\$6,912.00	
Soil Preparation	1,155,545 SF	\$0.22	\$254,219.90	
Turf Stolons	624,740 SF	\$0.09	\$56,226.60	
Vegetated Swale	24,000 SF	\$0.38	\$9,120.00	
 NATIVE GROVE NURSERY - LANDSCAPING				 \$122,593.95
Achillea 'Island Pink'	1,340	\$1.80	\$2,412.00	
Aloe Arorescens	658	\$2.10	\$1,381.80	
Alyogyne Hugelii	216	\$2.05	\$442.80	
Arctostaphyos Hookeri 'Monterey Carpet'	478	\$2.25	\$1,075.50	
Artesia 'Powis Castle'	131	\$1.90	\$248.90	
Baccharis Pilularis 'Pigeon Point'	1,439	\$1.80	\$2,590.20	
Buddleja Davidii Nanhoensis	268	\$2.40	\$643.20	
Cares Divulsa	6,774	\$2.10	\$14,225.40	
Carex Spissa	1,097	\$2.10	\$2,303.70	
Carsa Macrocarpa 'Tuttle'	1,207	\$2.10	\$2,534.70	
Ceanothus Gloriosus 'Emily Brown'	701	\$2.60	\$1,822.60	
Ceanothus 'Yankee Point'	372	\$2.20	\$818.40	
Cistus Purpureus	2,532	\$2.25	\$5,697.00	
Dasyiron Wheelerii	1,644	\$2.60	\$4,274.40	
Denromecon Hafordii	639	\$3.10	\$1,980.90	
Hemerocallis Hybrid	404	\$2.25	\$909.00	
Hesperaloe Parviflora	3,409	\$2.25	\$7,670.25	
Heteromeles Arbutifolia	396	\$3.60	\$1,425.60	
Loropetalum Chinese	119	\$2.40	\$285.60	
Mahonia Repens	1,560	\$3.80	\$5,928.00	
Muhlenbergia Capillaris 'Regal Mist'	823	\$2.25	\$1,851.75	
Muhlenbergia Rigens	2,148	\$2.10	\$4,510.80	
Myoporum Parvifolium 'Putah Creek'	678	\$2.40	\$1,627.20	
Parthenocissus Tricuspidata	45	\$28.50	\$1,282.50	
Penstemon Barbatus 'Navigator'	3,459	\$1.80	\$6,226.20	
Pennisetum Setaceum 'Rubrum'	684	\$2.60	\$1,778.40	
Photinia Fraseri	205	\$2.25	\$461.25	
Phormium 'Wings of Gold'	436	\$3.10	\$1,351.60	
Pittosporum Tobira 'Variegatum' Mock Orange	313	\$2.20	\$688.60	
Prunus Illicfolia	365	\$2.60	\$949.00	
Rhamus Californica	554	\$3.10	\$1,717.40	
Ribes Viburnifolium	327	\$3.10	\$1,013.70	
Rosa Floribunda 'Bright Pink Iceberg'	151	\$2.80	\$422.80	
Rosmarinus Officinalis 'Huntington Carpet'	16,368	\$2.10	\$34,372.80	
Salvia Celevelandii 'Winnifield Gilman'	657	\$2.10	\$1,379.70	
Salvia Leucantha	1,803	\$2.10	\$3,786.30	
Westingia Fruticosa	135	\$2.10	\$283.50	
Xylosma Congestum	98	\$2.25	\$220.50	

**APPENDIX C**

**JURUPA AREA RECREATION AND PARKS DISTRICT  
HORSESHOE LAKE PARK CONSTRUCTION COST DATA**

**Jurupa Area Recreation and Park District**  
**Source: DTA, DIF Study, 2006**

**Summary**

	<b>Total Costs</b>
Land Acquisition	n/a
Construction	\$2,375,000
Park Acres	13.00
Construction Cost per Acre	\$182,692

**Improvement/Construction Costs Detail**

<b>Description</b>	<b><u>Subtotal</u></b>	<b><u>Total</u></b>
<u>Horseshoe Lake Park</u>		
Design and Development of Horseshoe Lake Park	\$2,375,000	\$2,375,000

**APPENDIX D**

**JURUPA AREA RECREATION AND PARKS DISTRICT  
VETERAN'S MEMORIAL PARK CONSTRUCTION COST DATA**

**Jurupa Area Recreation and Park District**  
**Source: DTA, DIF Study, 2006**

**Summary**

	<b>Total Costs</b>
Land Acquisition	n/a
Construction	\$1,487,750
Park Acres	9.98
Construction Cost per Acre	\$149,073

**Improvement/Construction Costs Detail**

<b>Description</b>	<b><u>Subtotal</u></b>	<b><u>Total</u></b>
<u>Veteran's Memorial Park</u>		\$1,487,750
BBQs, Picnic Tables, Benches, and Trash Receptacles	\$18,750	
ADA Drinking Fountains	\$4,000	
Security Lighting	\$31,250	
Picnic Shelter and Slab	\$81,250	
Half Court Basketball Court	\$27,500	
Construction of Restroom Combination Storage Building	\$181,250	
Demolition of Horseshoe Court Area	\$18,750	
Construction of Teen Mini-Activity Center with Outdoor Amphitheatre	\$1,125,000	

**APPENDIX E**

**CITY OF LAKE FOREST – SPORTS PARK**

**Lake Forest - Skate Park**  
**Source: Bid Results, 2013**

**Summary**

	<b>Total Costs</b>
Land Acquisition	n/a
Construction	\$35,888,810
Park Acres	86.20
Construction Cost per Acre	\$416,344

<b>Description</b>	<b>Improvement/Construction Costs Detail</b>	<b>Subtotal</b>	<b>Total</b>
			\$35,888,810
<u>Project Start Up</u>			\$1,937,400
General Construction	\$1,700,000		
Temporary Construction Fence	\$60,900		
Construction Staking and Surveying	\$120,000		
Traffic Control, Public	\$6,500		
Sheeting, Shoring, and Bracing	\$5,000		
Supplemental Traffic	\$20,000		
Permits, Licensing, and Fees	\$25,000		
<u>Demolition</u>			\$5,000
Demolition, Removal,	\$5,000		
<u>Earthwork</u>			\$420,500
Site Grading	\$300,000		
Laser Grading			
Ball Field 1	\$2,500		
Ball Field 2	\$2,500		
Ball Field 3	\$2,500		
Ball Field 4	\$2,500		
Ball Field 5	\$2,500		
"Commons" Lawn Area	\$13,000		
Synthetic Turf Base	\$5,000		
Southern Natural Turf Athletic Fields	\$25,000		
Erosion Control	\$30,000		
SWPPP Implementation and Monitoring	\$35,000		
<u>Storm Drain Improvements</u>			\$885,000
Storm Drain	\$885,000		
<u>Sewer Improvements</u>			\$205,000
Sewer Improvements	\$205,000		
<u>Water Improvements</u>			\$245,000
Water Improvements	\$245,000		
<u>Natural Gas Improvements</u>			\$13,000
Natural Gas	\$13,000		

<b>Improvement/Construction Costs Detail</b>		<b>Total</b>
<b>Description</b>	<b>Subtotal</b>	
<u>Architecture</u>		\$11,173,000
Recreation Center, Complete	\$6,485,000	
Restroom / Concession Buildings, Complete	\$1,940,000	
Trash Enclosures, Complete	\$50,000	
Shade Structures at	\$840,000	
Shade Structures at Ball Fields - Design Build		
Ball Field 1 - Design Build	\$72,000	
Ball Field 2 - Design Build	\$72,000	
Ball Field 3 - Design Build	\$72,000	
Ball Field 4 - Design Build	\$72,000	
Ball Field 5 - Design Build	\$72,000	
Shade Structure at	\$333,000	
Shade Structures at	\$160,000	
40' x 40' Shade Structures - Design Build	\$400,000	
30' x 30' Shade Structures - Design Build	\$325,000	
30' x 30' Maintenance	\$95,000	
Glass Creek Overlook	\$185,000	
<u>Paving</u>		\$5,352,500
4" Asphaltic Concrete	\$725,000	
Architectural Concrete	\$3,110,000	
Natural Concrete Paving	\$430,000	
Plexipave Surface	\$11,000	
Flagstone Paving, Complete	\$226,000	
Pedestrian "Bridges", Complete	\$17,000	
Concrete Mow Curbs	\$445,000	
Playground Resilient Surfacing		
Northern Tot Lot	\$79,000	
Southern Tot Lot	\$160,000	
'Organic Lock' Decomposed Granite	\$45,000	
Decomposed Granite	\$2,500	
Interlocking Concrete Pavers	\$72,000	
Site Striping, Markings,	\$30,000	
<u>Walls</u>		\$1,981,000
Concrete Masonry Unit	\$777,000	
Concrete Cast-inPlace	\$370,000	
Entry Monument Walls, Complete		
Rancho Parkway	\$80,000	
Portola Parkway	\$37,000	
Vista Terrace	\$17,000	
'Cultured' Stone Veneer	\$700,000	
<u>Fencing/Metal Work</u>		\$1,800,500
Lodgepole Fencing, Complete	\$62,000	
Metal Guardrails for all	\$356,000	
Metal Handrails for all	\$58,000	
Tubular Steel Fence and	\$172,000	
Permanent Chain Link	\$550,000	
Sliding Tubular Steet	\$24,000	
HDPE Lumber at Ball Fields 1-5	\$36,000	
Netting, Posts, and Foul	\$520,000	
Cor-Ten Steel Animal Silhouettes	\$11,000	
Embedded Cor-Ten Steel Leaves	\$6,500	
Phase One Access	\$5,000	

<b>Improvement/Construction Costs Detail</b>		<b><u>Subtotal</u></b>	<b><u>Total</u></b>
<b><u>Description</u></b>			
<b><u>Site Electrical</u></b>			\$2,900,000
	Site Electrical for all Work required, Complete	\$2,900,000	
<b><u>Site Furnishings</u></b>			\$1,263,000
	Site Furnishings, Complete	\$672,000	
	Playground Equipment, Complete		
	North Tot Lot	\$95,000	
	South Tot Lot	\$417,000	
	Wayfinding Signage and	\$13,000	
	Field Striper	\$1,000	
	SunPac Trailers, Complete	\$65,000	
<b><u>Irrigation</u></b>			\$1,775,410
	Recycled Water Irrigation System, Complete	\$1,685,000	
	Domestic Water Irrigation, Complete	\$90,410	
<b><u>Landscape</u></b>			\$3,997,500
	Soil Preparation / Fine Grading	\$230,000	
	Planting and Landscape	\$2,035,000	
	Dwarf Hybrid Bermuda Turf (Sod), Complete	\$865,000	
	Hydroseed Mix No. 1	\$10,000	
	Synthetic Turf Drainage System		
	Fields A & B	\$260,000	
	Batting Cages	\$12,500	
	Sand at South Tot Lot	\$1,000	
	Engineered Wood Fiber at South Tot Lot	\$27,500	
	Infield Mix at Ball Fields 1-5	\$180,000	
	Hilltopper' Mound Mix at Ball Field 4	\$5,000	
	'La Cresta' Boulders for	\$65,000	
	Thematic Dry Creek Bed	\$10,000	
	Dos Rios Cobble for all	\$40,000	
	Cobble Edging at Building Perimeter	\$2,000	
	90-Day Site	\$254,500	
<b><u>Bid Alternatives</u></b>			\$1,935,000
	Dwarf Hybrid Bermuda	\$605,000	
	Natural Stone Veneer	\$1,130,000	
	Import Dirt Contingency	\$100,000	
	Export Dirt Contingency	\$100,000	

**APPENDIX F**

**CITY OF LAGUNA NIGUEL – CROWN VALLEY PARK**

**Laguna Niguel - Crown Valley Community Park**  
**Source: Bid Results, 2014**

**Summary**

	<b>Total Costs</b>	
Land Acquisition		n/a
Construction		\$4,599,531
Park Acres		18.00
Construction Cost per Acre		\$255,529

<u>Description</u>	<u>Quantity</u>	<u>Unit Cost</u>	<u>Subtotal</u>	<u>Total</u>	<u>Grand Total</u>
				\$177,052.00	\$4,599,531
<u>General</u>					
Mobilization (Not to exceed 2% of contract price)	1.00	LS	\$90,000.00	\$90,000.00	
Develop Construction Water	1.00	LS	\$9,740.00	\$9,740.00	
Payment and Performance Bonds	1.00	LS	\$68,850.00	\$68,850.00	
Construction Field Office	1.00	LS	\$6,377.00	\$6,377.00	
Traffic Control	1.00	LS	\$2,085.00	\$2,085.00	
<u>Site Preparation</u>				\$28,907.38	
Clearing and Grubbing	1.58	AC	\$11,361.00	\$17,950.38	
Instill Temporary Construction Chain Link Fence	1.00	LS	\$10,957.00	\$10,957.00	
<u>Rough Grading</u>					
Over Excavation (5 ft average) unsuitable material excavation and recompaction (keyway)	13,010.00	CY	\$6.50	\$84,565.00	\$171,342.00
Ampitheatre - 4" PVC Schedule 40 Perforated Pipe	3,280.00	CY	\$8.60	\$28,208.00	
Back Drain with Filter Material	304.00	LF	\$50.00	\$15,200.00	
4" PVC Schedule 40 Pipe	135.00	LF	\$21.00	\$2,835.00	
On-Site Export Materials Disposal/Handling	3,070.00	CY	\$8.00	\$24,560.00	
Erosion Control (Entire Site)	1.00	LS	\$15,974.00	\$15,974.00	
<u>Demolition</u>				\$71,950.00	
Exist Ampitheatre Area - Demolition	1.00	LS	\$40,433.00	\$40,433.00	
Ex. Spray Ground Play Area - Demolition	1.00	LS	\$31,517.00	\$31,517.00	
<u>Precise Grading Construction - Ampitheatre</u>				\$120,902.00	
6" Curb per OCPW STD 120-2	103.00	LF	\$18.00	\$1,854.00	
3' Cross Gutter	69.00	SF	\$17.00	\$1,173.00	
4" AC/10" AB	1,271.00	SF	\$10.00	\$12,710.00	
Sidewalk Access Ramp	1.00	EA	\$1,768.00	\$1,768.00	
Grade Keyway 5'x15'	150.00	CY	\$36.28	\$5,442.00	
Replace Salvaged Gate	1.00	EA	\$3,305.00	\$3,305.00	
0" to 6" Curb Transition	-	LF	\$0.00	\$0.00	
0" Curb per OCPW STD 120-2	-	LF	\$0.00	\$0.00	
10" Wide Seatwall	122.00	LF	\$222.00	\$27,084.00	
Seatwall (18" Wall Retaining-Note 18)	112.00	LF	\$243.00	\$27,216.00	
Concrete (Retaining Wall-H-Varies)	400.00	SF	\$75.83	\$30,332.00	
12" Wide Border with Grooves	1.00	EA	\$185.00	\$185.00	
Landscape Tie Steps	3.00	EA	\$692.00	\$2,076.00	
Seatwall (18" Wall Retaining-Note 20)	23.00	LF	\$263.00	\$6,049.00	
DG Trail	427.00	SF	\$4.00	\$1,708.00	
<u>Drainage Construction - Ampitheatre</u>				\$76,222.00	
4" PVC Subdrain	19.00	LF	\$23.00	\$437.00	
4" Perforated Pipe	447.00	LF	\$27.00	\$12,069.00	
6" PVC	257.00	LF	\$26.00	\$6,682.00	
8" PVC	153.00	LF	\$27.00	\$4,131.00	
Connect to Ex Storm Drain	4.00	EA	\$1,147.00	\$4,588.00	
12" Area Drain Conc. V-Ditch	4.00	EA	\$600.00	\$2,400.00	
12" Landscape Drain	7.00	EA	\$230.00	\$1,610.00	
18" Area Drain	-	EA	\$0.00	\$0.00	
12" Area Drain	1.00	EA	\$599.00	\$599.00	
1' Concrete Wide V-Ditch	190.00	LF	\$33.00	\$6,270.00	
18" N-12 HDPE Pipe	293.00	LF	\$33.00	\$9,669.00	
4" Trench Drain	82.00	LF	\$151.00	\$12,382.00	
Concrete Cradle	-	LF	\$0.00	\$0.00	
24" HDPE Pipe Manhole	2.00	EA	\$3,711.00	\$7,422.00	
6" Clean-Out	3.00	EA	\$995.00	\$2,985.00	
Trench Backfill/PVMT Repair	131.00	SF	\$38.00	\$4,978.00	
<u>Construction - Ampitheatre</u>				\$5,749.00	
Accessible Stall Striping	144.00	SF	\$17.00	\$2,448.00	
Accessible Parking Sign	2.00	EA	\$522.00	\$1,044.00	
4" Wheel Stop	2.00	EA	\$116.00	\$232.00	
Stall Striping	18.00	LF	\$7.00	\$126.00	
Re-Stripe Hump Markings	2.00	EA	\$407.00	\$814.00	
Re-Stripe Crosswalk	31.00	LF	\$35.00	\$1,085.00	

-78-

Improvement/Construction Costs Detail							
Description			Unit Cost	Subtotal	Total	Grand Total	
<u>Site Amenities - Amphitheatre</u>						\$295,322.00	
Concrete A: Natural Color	6,463.00	SF	\$8.00	\$51,704.00			
Concrete B: Salmon Colored, 24" Scored	140.00	SF	\$16.00	\$2,240.00			
Concrete C: Mesa Buff Colored Banding	686.00	SF	\$10.00	\$6,860.00			
Concrete D: Checkerboard Finish, MICA, 24" Scored	1,182.00	SF	\$16.00	\$18,912.00			
Concrete F: Salmon Colored	937.00	SF	\$12.00	\$11,244.00			
Decomposed Granite	28.00	CY	\$143.00	\$4,004.00			
Concrete Mowstrip	195.00	LF	\$11.00	\$2,145.00			
Concrete Risers	236.00	LF	\$29.00	\$6,844.00			
Stage Ramp Railing	60.00	LF	\$427.00	\$25,620.00			
Parking Lot Ramp Railing	84.00	LF	\$143.00	\$12,012.00			
Concrete Curb	23.00	LF	\$38.00	\$874.00			
Amphitheatre Stage Stone Structure	1.00	EA	\$81,596.00	\$81,596.00			
Amphitheatre Overhead Framework	1.00	EA	\$8,696.00	\$8,696.00			
Amphitheatre Stage Lighting	1.00	LS	\$62,571.00	\$62,571.00			
<u>Site Furniture</u>						\$25,078.00	
Trash Receptacles	5.00	EA	\$1,240.00	\$6,200.00			
Recycled Material Receptacle	3.00	EA	\$1,240.00	\$3,720.00			
Bench	1.00	EA	\$1,559.00	\$1,559.00			
Botanical Preserve Sign with Pilasters	1.00	EA	\$5,382.00	\$5,382.00			
Grading Edge Adjustments	1.00	EA	\$8,217.00	\$8,217.00			
<u>Irrigation - Amphitheatre</u>						\$86,074.00	
Automatic Irrigation System	36,703.00	SF	\$2.00	\$73,406.00			
Automatic Controller	1.00	EA	\$12,668.00	\$12,668.00			
<u>Planting - Amphitheatre</u>						\$100,774.20	
Soil Preparation and Weed Abatement	36,703.00	SF	\$0.40	\$14,681.20			
Sodded Turf - Amphitheatre	30,905.00	SF	\$1.00	\$30,905.00			
Artificial Turf	2,208.00	SF	\$15.00	\$33,120.00			
3" Thick Layer of Mulch	5,798.00	SF	\$0.50	\$2,899.00			
36" Box Tree	5.00	EA	\$913.00	\$4,565.00			
5 Gallon Shrub	324.00	EA	\$18.00	\$5,832.00			
1 Gallon Shrub	731.00	EA	\$12.00	\$8,772.00			
<u>Post Installation Maintenance - Amphitheatre</u>						\$11,010.90	
90 Day Maintenance	36,703.00	SF	\$0.30	\$11,010.90			
<u>Precise Grading Construction - Sprayground Play Area</u>						\$205,206.00	
6" Curb per OCPW STD 120-2	322.00	LF	\$14.00	\$4,508.00			
4" HMA Over 6" AB	3,233.00	SF	\$6.00	\$19,398.00			
4" Sidewalk	-	SF	\$0.00	\$0.00			
0" to 6" Curb Transition	52.00	LF	\$14.00	\$728.00			
0" Curb per OCPW STD 120-2	43.00	LF	\$16.00	\$688.00			
8" Wide Seatwall	242.00	LF	\$242.00	\$58,564.00			
Concrete (Retain) Wall	720.00	SF	\$87.00	\$62,640.00			
Retaining Wall (2:1 Backfill)	320.00	SF	\$101.00	\$32,320.00			
6" CMU Wall	70.00	LF	\$174.00	\$12,180.00			
12" Wide Border with Grooves (At H/C Ramps)	4.00	EA	\$1,224.00	\$4,896.00			
Seatwall (18" Wall Retaining-Note 20)	46.00	LF	\$146.00	\$6,716.00			
Seatwall (18" Wall Retaining-Note 18)	8.00	LF	\$321.00	\$2,568.00			
<u>Drainage Construction - Sprayground Play Area</u>						\$102,428.00	
4" PVC Subdrain	274.00	LF	\$25.00	\$6,850.00			
4" Perforated Pipe	438.00	LF	\$28.00	\$12,264.00			
6" PVC	457.00	LF	\$29.00	\$13,253.00			
8" PVC	265.00	LF	\$30.00	\$7,950.00			
Connect to Ex Storm Drain	-	EA	\$0.00	\$0.00			
12" Area Drain Conc. V-Ditch	11.00	EA	\$600.00	\$6,600.00			
12" Landscape Drain	-	EA	\$0.00	\$0.00			
6" Landscape Drain	17.00	EA	\$246.00	\$4,182.00			
12" Area Drain	5.00	EA	\$599.00	\$2,995.00			
18" Area Drain	-	EA	\$0.00	\$0.00			
1' Concrete Wide V-Ditch	341.00	LF	\$33.00	\$11,253.00			
18" PVC	-	LF	\$0.00	\$0.00			
Connect to Rain Drop Box	1.00	EA	\$432.00	\$432.00			
4" Trench Drain	111.00	LF	\$154.00	\$17,094.00			
12" PVC	26.00	LF	\$34.00	\$884.00			
4" Trench Drain	62.00	LF	\$168.00	\$10,416.00			
JS Type VI	2.00	EA	\$2,635.00	\$5,270.00			
24" HDPE	-	LF	\$0.00	\$0.00			
6" Clean-Out	3.00	EA	\$995.00	\$2,985.00			

				Improvement/Construction Costs Detail				
Description			Unit Cost	Subtotal	Total	Grand Total		
<u>Wet Utility Services - Sprayground Play Area</u>								
Install 2" Backflow Preventer	2.00	EA	\$5,758.00	\$11,516.00		\$41,192.00		
2" PVC Water Line	190.00	LF	\$13.00	\$2,470.00				
Point of Connection to Building	3.00	EA	\$498.00	\$1,494.00				
Connect to Ex Service	2.00	EA	\$492.00	\$984.00				
Connect to Ex 1" Water Line	1.00	EA	\$171.00	\$171.00				
4" SDR-35 PVC Sewer Pipe	72.00	LF	\$31.00	\$2,232.00				
Remove Cleanout and Join	2.00	EA	\$603.00	\$1,206.00				
Connect to Drain Pipe	1.00	EA	\$455.00	\$455.00				
Remove 1" Water Line	78.00	LF	\$8.00	\$624.00				
Water Meter	2.00	EA	\$10,020.00	\$20,040.00				
<u>Storm Drain Construction - Sprayground Play Area</u>								
24" RCP	108.00	LF	\$185.00	\$19,980.00		\$37,029.00		
Adjust Existing MH	1.00	EA	\$1,584.00	\$1,584.00				
Remove Ex 24" RCP	545.00	LF	\$22.00	\$11,990.00				
Concrete Saddle	31.00	LF	\$73.00	\$2,263.00				
Concrete Collar	3.00	EA	\$404.00	\$1,212.00				
<u>Construction - Sprayground Play Area</u>								
Accessible Stall Striping	143.00	SF	\$17.00	\$2,431.00		\$23,330.00		
Accessible Parking Sign	2.00	EA	\$522.00	\$1,044.00				
4" Wheel Stop	2.00	EA	\$116.00	\$232.00				
Stall Striping	278.00	LF	\$7.00	\$1,946.00				
Re-Stripe Crosswalk	51.00	LF	\$35.00	\$1,785.00				
Erosion Control	1.00	LS	\$15,892.00	\$15,892.00				
<u>Site Amenities - Sprayground Play Area</u>								
Concrete A: Natural Color	5,316.00	SF	\$8.00	\$42,528.00		\$1,496,502.00		
Concrete B: Salmon Colored, 24" Scored	285.00	SF	\$17.00	\$4,845.00				
Concrete C: Mesa Buff Colored Banding	760.00	SF	\$10.00	\$7,600.00				
Concrete E: Checkerboard Finish, 48" Scored	3,334.00	SF	\$15.00	\$50,010.00				
Concrete F: Salmon Colored	640.00	SF	\$13.00	\$8,320.00				
Concrete G: Salmon with Mica Feldspar	179.00	SF	\$22.00	\$3,938.00				
Concrete Risers	252.00	LF	\$23.00	\$5,796.00				
Concrete Curb	165.00	LF	\$20.00	\$3,300.00				
Concrete Mowstrip	150.00	LF	\$14.00	\$2,100.00				
Mosaic	1.00	LS	\$6,492.00	\$6,492.00				
Architectural Art Panel	3.00	LS	\$5,797.00	\$17,391.00				
42" High Guardrail	90.00	LF	\$416.00	\$37,440.00				
Handrail at Steps and Ramps - Play Area	321.00	LF	\$485.00	\$155,685.00				
Concrete Cheek Wall/Curb	190.00	LF	\$191.00	\$36,290.00				
42" Tubular Steel Fence with Embellishments	185.00	LF	\$536.00	\$99,160.00				
6' High, Water Feature, Tubular Steel Fence	146.00	LF	\$450.00	\$65,700.00				
Entry Archway with Columns - No Gates	2.00	SET	\$29,212.00	\$58,424.00				
6' High Tubular Steel Service Gates	2.00	SET	\$13,333.00	\$26,666.00				
6' x 5' High Tubular Steel Service Gates	1.00	SET	\$4,116.00	\$4,116.00				
6' x 10' High Tubular Steel Service Gates	1.00	SET	\$7,189.00	\$7,189.00				
6' High Pilasters	3.00	EA	\$5,411.00	\$16,233.00				
4' High Pilaster	1.00	EA	\$5,382.00	\$5,382.00				
30" High Pilasters	9.00	EA	\$2,551.00	\$22,959.00				
Service Switchgear Total	1.00	LS	\$124,609.00	\$124,609.00				
Site Lighting Fixtures	1.00	LS	\$684,329.00	\$684,329.00				
<u>Architecture - Sprayground Play Area</u>								
Restroom and Pump Room Building	682.00	SF	\$700.00	\$477,400.00		\$555,839.00		
Outdoor Shower and Drain to Sewer	1.00	EA	\$10,319.00	\$10,319.00				
Life Guard Chair	2.00	EA	\$1,780.00	\$3,560.00				
Shade Canopy at Picnic and Water Feature Areas	3.00	EA	\$21,520.00	\$64,560.00				
<u>Site Furniture - Sprayground Play Area</u>								
ADA Picnic Table	4.00	EA	\$2,386.00	\$9,544.00		\$73,962.00		
Picnic Table	5.00	EA	\$2,131.00	\$10,655.00				
Bench	11.00	EA	\$1,559.00	\$17,149.00				
Trash Receptacles	11.00	EA	\$1,240.00	\$13,640.00				
Bike Rack	1.00	EA	\$934.00	\$934.00				
Recycled Material Receptacle	10.00	EA	\$2,204.00	\$22,040.00				
<u>Play Equipment - Sprayground Play Area</u>								
Water Spray Ground Features with Recycling Pump	1.00	CY	\$259,705.00	\$259,705.00		\$698,935.00		
Playground Equipment and GFRC Amenities	2.00	SET	\$174,882.00	\$349,764.00				
Ruberized Surfacing	2,495.00	SF	\$26.00	\$64,870.00				
Water Spray Ground - Natural Color with Glass	934.00	SF	\$19.00	\$17,746.00				
Sand Colored Concrete	685.00	SF	\$10.00	\$6,850.00				
<u>Irrigation - Sprayground Play Area</u>								
Automatic Irrigation System	20,212.00	SF	\$2.00	\$40,424.00		\$53,092.00		
Automatic Controller	1.00	EA	\$12,668.00	\$12,668.00				

<u>Description</u>	<u>Improvement/Construction Costs Detail</u>			<u>Subtotal</u>	<u>Total</u>	<u>Grand Total</u>		
			<u>Unit Cost</u>					
<u>Planting - Spravground Play Area</u>								
Soil Preparation and Weed Abatement	20,212.00	SF	\$0.50	\$10,106.00	\$87,719.60			
Sodded Turf	5,929.00	SF	\$0.90	\$5,336.10				
3" Thick Layer of Mulch	14,283.00	SF	\$0.50	\$7,141.50				
60" Box Tree	1.00	EA	\$5,481.00	\$5,481.00				
48" Box Tree	3.00	EA	\$1,495.00	\$4,485.00				
36" Box Tree	24.00	EA	\$889.00	\$21,336.00				
5 Gallon Shrub	882.00	EA	\$19.00	\$16,758.00				
1 Gallon Shrub	1,423.00	EA	\$12.00	\$17,076.00				
<u>Post Installation Maintenance - Spravground Play Area</u>								
90 Day Maintenance	20,212.00	SF	\$0.40	\$8,084.80			\$13,509.80	
Landscape Tiles	155.00	LF	\$35.00	\$5,425.00				
<u>Trash Enclosure</u>								
8"x8"x16" Precision Block CMU Wall	83.00	LF	\$133.00	\$11,039.00	\$40,403.00			
4" Mon PCC Curb	60.00	LF	\$13.00	\$780.00				
6" PCC Pavement	547.00	SF	\$7.00	\$3,829.00				
6"x4" Schedule 40 Gal Steel Tube FTG	5.00	EA	\$552.00	\$2,760.00				
Fab and Install Metal Gate	36.00	LF	\$389.00	\$14,004.00				
Fab Slide Bolt	3.00	EA	\$267.00	\$801.00				
Install 6" Schedule 40 Gal Steel Bollards	2.00	EA	\$487.00	\$974.00				
Mortar Cap	83.00	LF	\$4.00	\$332.00				
Type A1-6 PCC Curb	17.00	LF	\$27.00	\$459.00				
3" AC Over 4" AB Pavement	73.00	SF	\$12.00	\$876.00				
Sawcut and Remove AC Pavement	75.00	LF	\$13.00	\$975.00				
Remove 6" Curb	58.00	LF	\$16.00	\$928.00				
Paint DBL 4" Wide Striping	882.00	EA	\$3.00	\$2,646.00				

## APPENDIX G

### CITY OF PASADENA – DESIDERIO PARK CONSTRUCTION COST DATA

**Pasadena**  
**Source: City CIP Budget, 2014**

**Summary**

	Total Costs
Land Acquisition	n/a
Construction (Design & Development)	\$2,410,000
Park Acres	3.80
Construction Cost per Acre	\$634,211

**Improvement/Construction Costs Detail**

<b>Location</b>	<b>Description</b>	<b><u>Subtotal</u></b>	<b><u>Total</u></b>
<u>Desiderio Park</u>	Development of New Park	\$2,410,000	\$2,410,000

## APPENDIX H

### CITY OF REDONDO BEACH – HEART PARK CONSTRUCTION COST DATA

**Redondo Beach**  
**Source: DTA, DIF Study, 2003**

**Summary**

<b>Facility/Item</b>	
Land Acquisition	\$227,397,770
Construction	\$32,473,900
Park Acres	76.50
Construction Cost per Acre	\$424,495
Land Acquisition Costs per Acre	\$2,972,520

<b>Description</b>	<b>Improvement/Construction Costs Detail</b>			<b>Subtotal</b>	<b>Total</b>	<b>Grand Total</b>
	<b>Unit</b>	<b>Quantity</b>	<b>Unit Cost</b>			
<b>Heart Park</b>						
<u>Area A</u>					\$3,396,000	
Community Events Center Site	Acres	4.40	\$250,000	\$1,100,000		
Multi-Use Community Event Area	Acres	8.80	\$25,000	\$2,200,000		
Parking Lot	Per Space	120.00	\$800	\$96,000		
<u>Area B</u>					\$1,035,500	
Swimming/Tennis Complex Site	Acres	2.30	\$250,000	\$575,000		
Swimming Pool	Square Feet	7,500.00	\$55	\$412,500		
Tennis Courts	Square Feet	57,600.00	--	--		
Parking Lot	Per Space	60.00	\$800	\$48,000		
<u>Area C</u>					\$11,060,400	
Active Recreation/Sports	Acres	12.70	\$250,000	\$3,175,000		
Natural Area	Acres	7.90	\$150,000	\$1,185,000		
Amphitheatre	Square Feet	87,120.00	\$20	\$1,742,400		
Passive Park	Acres	11.00	\$200,000	\$2,200,000		
Multi-Use Community Event Area	Acres	5.00	\$250,000	\$1,250,000		
Pedestrian Path	Acres	8.40	\$150,000	\$1,260,000		
Parking Lot	Per Space	310.00	\$800	\$248,000		
<u>Area D</u>					\$16,350,000	
Harbor Recreation	Acres	10.60	\$250,000	\$2,650,000		
Boat Launch	Acres	1.10	N/A	\$13,340,000		
Parking Lot	Per Space	450.00	\$800	\$360,000		
<u>Area E</u>					\$632,000	
Bike Path Trailhead	Acres	0.60	\$225,000	\$135,000		
Multi-Use Harbor Recreation Area	Acres	1.10	\$250,000	\$425,000		
Parking Lot	Per Space	90.00	\$800	\$72,000		

**APPENDIX I**

**CITY OF SAN MARCOS – BRADLEY PARK CONSTRUCTION COST DATA**

**San Marcos - Bradley Park**  
**Source: Bradley Park Master Plan, 2014**

**Summary**

Land Acquisition	n/a
Construction Costs	\$12,492,484
Park Acres	34.00
Construction Cost per Acre	\$367,426

**Improvement/Construction Costs Detail**

	<u>Description</u>	<u>Quantity</u>	<u>Unit Cost</u>	<u>Subtotal</u>	<u>Total</u>	<u>Grand Total</u>
						<b>\$12,492,484</b>
One					\$339,568	
	South Rancho Santa Fe Road on-site parking	168	\$552.45	\$92,811		
	Head Start Parking Lot	43	\$2,866.21	\$123,247		
	Pacific Street Parking	107	\$1,154.30	\$123,510		
Two					\$4,552,878	
	Football/Soccer Field #1, Softball/Baseball Fields #1 & #2			\$2,122,177		
	241 Car Parking Lot with Access Drives			\$1,070,011		
	Center Core Area			\$1,275,810		
	Walking Trail			\$84,880		
Three					\$4,310,556	
	Baseball Field #1			\$1,582,821		
	Softball/Baseball Field #3 & Soccer Field #4			\$1,161,504		
	Softball/Baseball Field #4			\$932,111		
	Restroom & Concession Building at S. Rancho Santa Fe Rd.			\$549,240		
	Walking Trail			\$84,880		
Four					\$3,289,482	
	Group Picnic Area at Lower Mesa			\$212,157		
	Football/Soccer Field #2, Softball/Baseball Fields #5 & #6			\$2,122,177		
	Baseball Field #2 with Cover Play Area and Picnic Amenities			\$694,207		
	Baseball Field #3			\$260,941		

**APPENDIX J**

**CITY OF TUSTIN – TUSTIN LEGACY PARK CONSTRUCTION COST DATA**

**Tustin Legacy Park**  
**Source: Tustin Legacy Park Master Plan, 2014**

**Summary**

	Total Costs
Land Acquisition	n/a
Design Contingency	\$1,158,626
Construction	\$16,816,265
Park Acres	31.50
Construction Cost per Acre	\$533,850

	Improvement/Construction Costs Detail		Grand Total
<u>Description</u>	<u>Total</u>		<u>\$16,816,265</u>
<u>General Construction</u>	\$1,139,482		
Mobilization			
Fine Grading			
Erosion Control			
Utilities			
<u>Ballfields</u>	\$1,927,000		
3 Fields			
Lighting			
Amenities			
<u>Miscellaneous Paving &amp; Trails</u>	\$890,000		
Paving			
Trails			
Lighting			
Signage			
<u>Multi- Purpose Fields</u>	\$2,315,000		
4 Fields			
Lighting			
Amenities			
<u>Courts</u>	\$750,000		
Basketball			
Tennis			
Pickleball			
Sand Volleyball			
Lighting			
Amenities			
<u>Children' s Play Environment</u>	\$2,110,000		
Play Equipment			
Passive Areas			
Par Course Equipment			
Veteran' s Memorial			
Signage			
Amenities			
<u>Parking Lots</u>	\$2,110,000		
Small Parking Lot			
Large Parking Lot			
<u>Buildings</u>	\$650,000		
Two Buildings			
<u>Skate Park</u>	\$396,500		
Lighting			
Amenities			
<u>Miscellaneous Landscape &amp; Irrigation</u>	\$1,408,283		
Soil Preparation			
Trees, Shrubs, Groundcover			
Irrigation			
<u>Additive Alternative</u>	\$3,120,000		
Synthetic Turf @ Soccer Fields			