OTAY RANCH VILLAGE 11 SPA PLAN
PUBLIC FACILITIES FINANCE PLAN

Approved by:
Chula Vista City Council

Resolution No.

Prepared by:
burkett & wong

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II.5.1 EXECUTIVE SUMMARY

OVERVIEW

This Public Facilities Finance Plan (PFFP) addresses the public facility needs associated with the Otay Ranch Village 11 SPA Plan. The PFFP has been prepared under the requirements of the City of Chula Vista's Growth Management Program and Chapter 9, Growth Management of the Otay Ranch General Development Plan (GDP). The preparation of the PFFP is required in conjunction with the preparation of the Sectional Planning Area (SPA) Plan for Village 11 to ensure that the phased development of the project is consistent with the overall goals and policies of the City's General Plan, Growth Management Program, and the Otay Ranch General Development Plan (GDP) which was adopted by the Chula Vista City Council on October 28, 1993, to ensure that the development of the project will not adversely impact the City's Quality of Life Standards. This PFFP meets the policy objectives of the Otay Ranch GDP.

This PFFP is based upon the phasing and project information that has been presented in the Otay Ranch Village 11 SPA Plan dated October 9, 2001. According to the Village 11 SPA Plan, this project is proposed to be developed in 3 phases. The PFFP begins by analyzing the existing demand for facilities based upon the demand from existing development and those projects with various entitlements through the year 2010. Further, the PFFP uses the phasing as contained in the Otay Ranch Village 11 SPA Plan to determine the impacts associated with each phase of the project.

When specific thresholds are projected to be reached or exceeded based upon the analysis of the phased development of the Village 11 project, the PFFP provides recommended mitigation necessary for the continued compliance with the Growth Management Program and Quality of Life Standards. The PFFP does not propose different development phasing from that identified in the SPA Plan, but may indicate that the development phasing should be limited or reduced until certain actions are taken to guarantee public facilities will be available or provided to meet the Quality of Life Standards. Subsequent changes to the phasing shall require an amendment to the PFFP.

Typically, as an applicant receives each succeeding development approval, the applicant must perform the required steps that will insure the timely provision of the required facility. Failure to perform the required step curtails additional development approvals. The typical steps are illustrated below:

Performance of Facility Thresholds

GDP:

- Goals, objectives & policies established.
- Facility thresholds established.
- Processing requirements established.

SPA:

- Facility financing refined and funding source identified consistently with GDP goals, objectives & policies.

- Facility demand and costs calculated consistently with adopted land uses and GDP defined methodologies.
- Specific facility financing and phasing analysis performed to assure compliance with Growth Management Thresholds.
- Facilities sited and zoning identified.

Tentative Map:

- Subdivision approval conditioned upon assurance of facility funding.
- Subdivision approval conditioned upon payment of fees, or the dedication, reservation or zoning of land for identified facilities.
- Subdivision approval conditioned upon construction of certain facility improvements.

Final Map:

- Tentative Map conditions performed.
- Lots created.

Building Permit:

- Impact fees paid as required.

The critical link between the thresholds and development entitlements is the PFFP. Part II, Chapter 9, Section C of the GDP/SPA Processing Requirements, General Development Plan Implementation, requires the preparation of Public Facility Financing and Phasing Plans as a condition of approval of all SPA's. This PFFP satisfies the GDP requirement. The PFFP requires the preparation and approval of phasing schedules showing how and when facilities and improvements necessary to serve proposed development will be installed or financed to meet the threshold standards, including:

- An inventory of present and future requirements for each facility.
- A summary of facilities cost.
- A facility phasing schedule establishing the timing for installation or provisions of facilities.
- A financing plan identifying the method of funding for each facility required.
- A fiscal impact report analyzing SPA consistency with the Subregional Plan (SRP).

Subsection C of the City of Chula Vista Municipal Code (CVMC) Section 19.09.100 (Growth Management Ordinance) requires that if the City Manager determines that facilities or improvements within a PFFP are inadequate to accommodate any further development within that area the City Manager shall immediately report the deficiency to the City Council. If the City Council determines that such events or changed circumstances adversely affect the health, safety or welfare of City, the City may require amendment, modification, suspension, or termination of an approved PFFP.

A. GENERAL CONDITIONS FOR OTAY RANCH VILLAGE 11 PFFP

1. All development within the boundaries of the PFFP for the Otay Ranch Village 11 SPA shall conform to the provisions of Section 19.09 of the Chula Vista Municipal Code (Growth Management Ordinance) as may be amended from time to time and to the provisions and conditions of this Public Facilities Finance Plan.

2. All development within the boundaries of the PFFP for Otay Ranch Village 11 SPA shall be required to pay development impact fees, unless the developer has entered into a separate agreement with the City, for public facilities, transportation and other applicable fees pursuant to the most recently adopted program by the City Council, and as amended from time to time. Development within the boundaries of the Otay Ranch Village 11 SPA shall also be responsible for fair share proportionate fees that are necessary to meet the adopted facility performance standards as they relate to the SPA Plan and subdivision application.

3. The Public Facilities Finance Plan shall be implemented in accordance with Chula Vista Municipal Code (CVMC) 19.09.090. Future amendments shall be in accordance with CVMC 19.09.100 and shall incorporate newly acquired data, to add conditions and update standards as determined necessary by the City through the required monitoring program. Amendment to this Plan may be initiated by action of the Planning Commission, City Council or property owners at any time. Any such amendments must be approved by the City Council.

4 Approval of this PFFP does not constitute prior environmental review for projects within the boundaries of this Plan. All future projects within the boundaries of this PFFP shall undergo environmental review as determined appropriate by the City of Chula Vista.

5. Approval of this PFFP does not constitute prior discretionary review or approval for projects within the boundaries of the Plan. All future projects within the boundaries of the Otay Ranch Village 11 SPA PFFP shall undergo review in accordance with the Chula Vista Municipal Code. This PFFP analyzes the maximum allowable development potential for planning purposes only. The approval of this plan does not guarantee specific development densities.

6. The facilities and phasing requirements identified in this PFFP are based on the Otay Ranch Village 11 SPA Plan which assumes that 2,304 dwelling units and approximately 10.0 acres of commercial uses, 8.9 gross acres of Neighborhood Parks, a 1 acre Town Square, 6.8 gross acres of private recreational areas, a 11.0 acre elementary school site, 25.6 acre Junior High School site, 5.5 acres for Community Purpose Facilities (9.3 acres of Community Purpose Facilities is required for Village 11), 49.2 acres of open space and 66.2 acres for major circulation facilities development will be constructed.

7. The plan analysis is based upon the phasing presented in this document. Any changes to phasing shall require an amendment to the PFFP.

B. PUBLIC FACILITY COST AND FEE SUMMARY OTAY RANCH VILLAGE 11 SPA

The following tables identify and summarize the various facility costs associated with development of the Otay Ranch Village 11 project. The facilities and their cost are identified in detail in subsequent sections of this document. The tables indicate a recommended financing alternative based upon current Chula Vista practices and policies. However, where another financing mechanism may be shown at a later date to be more effective, the City may implement such other mechanisms in accordance with City policies. This will allow the City maximum flexibility in determining the best use of public financing to fund public infrastructure improvements.

The Traffic Impact Analysis by Linscott, Law & Greenspan (LL&G), dated July 5, 2001, has identified several projects that will be required as the result of the development of Otay Ranch Village 11 SPA. The total cost of street improvements is $30,771,000 as identified in Table C.12. The improvement projects listed include both offsite and onsite improvements. Most of the improvement projects are eligible for funding through the City's Transportation Development Impact Fee (TDIF) program. These eligible improvements total $29,441,000. In the event the developer constructs a TDIF improvement, the cost of the improvement may be eligible for credit against TDIF fees. Construction of non-TDIF eligible improvements is the responsibility of the developer.

TDIF Fees generated by the Village 11 SPA total $14,040,453. Fees are also generated for Interim SR125 facilities $1,898,300 and for traffic signals $390,780. Funding for street improvements may be accomplished in one or more possible funding alternatives such as:

- Payment of TDIF fees.
- Construction of improvements by developer with credit toward DIF fees on building permits.
- Financing through assessment districts or Community Facility Districts over area of benefit larger than the Village 11 SPA plan area.
- Expenditure of available DIF account funds.
- Construction of improvements by other developers (i.e. Sunbow, etc.)
- Federal Funds

The Otay Ranch Village 11 SPA Plan is anticipated to require one elementary school, which is planned to be constructed with funding through a Mello-Roos Community Facilities District that will be established by the Chula Vista Elementary School District. The Sweetwater Union High School District has determined that a Middle School should be located in the Village 11 project. The Project will participate in a CFD to be established by the Sweetwater Union High School District.

The off-site backbone sewer, drainage and water improvements are typically funded by the payment of current city impact fees and capacity fees. However, some off-site sewer, drainage and water facilities may be the responsibility of the developer if the facility's only purpose is to support the proposed development.

Parks will be funded, in part, through the payment of Park Acquisition and Development Fees (PAD fees), dedication, and developer exactions. The Otay Ranch Village 11 SPA Plan will generate approximately $10,691,808 in PAD fees. The Project proposes to dedicate 8.0 net acres (7.0 net acre neighborhood Park & 1.0 net acre Town Square) of the 20.68 acres

required to meet the projects parkland demand. However, the Village 11 developer has the option of dedicating approximately 12.51 acres, or paying the acquisition component of the Park Acquisition, and Development (PAD) fees.

Police, fire and emergency medical services, library, civic center, corporation yard, and other public facilities will be funded, in part, from revenues generated from the payment of Public Facilities Development Impact Fees at building permit issuance. These fee revenues total approximately $6,060,670 for the Otay Ranch Village 11 SPA Plan.

Altogether, the City's development impact fees by phase and facility for the Otay Ranch SPA Plan total $33,842,445 as shown on Table A.1 below.

Table A.1
Village 11 Summary of DIF Fees by Phase & Facility

Facility	Phase 1	Phase 2	Phase 3	Totals
Traffic	$3,868,870	$7,559,730	$4,900,955	$16,329,555
Sewer	$139,259	$306,308	$210,983	$656,550
Drainage				$0*
Water				$0*
Police	$391,020	$805,560	$546,105	$1,742,685
Fire/EMS	$107,996	$222,488	$150,829	$481,313
Schools				$0*
Library	$339,416	$656,502	$474,034	$1,469,952
Parks (PAD)	$2,686,600	$4,442,566	$3,562,642	$10,691,808
Civic Center	$255,360	$526,080	$356,640	$1,138,080
Corp. Yard	$205,352	$423,056	$286,798	$915,206
Other Facilities	$93,632	$192,896	$130,768	$417,296
Total	**$8,087,505**	**$15,135,186**	**$10,619,754**	**$33,842,445**

* No city imposed DIF program in place for this facility.
Note: Please reference Table B.2 and Exhibit 4, Phasing Plan.

Table A.2 Village 11 Timing and Funding Source by Facility		
Facility	**Funding Source**	**Project Timing**
Traffic		
1. Village 11 TDIF	Pay TDIF	Building Permit
2. No Specific Facility	Pay Interim SR-125 DIF	Building Permit
3. No Specific Facility	Pay Traffic Signal Fee	Building Permit
4. Roadway Unit Triggers		
1) Olympic Parkway, SR 125 to Hunte Pkwy	Developer Exaction	1 unit
2a) Eastlake Parkway, SDG&E Easement to Olympic Pkwy	Developer Exaction	1856units
2b) Eastlake Parkway, Olympic Parkway to North Village Entry	Developer Exaction	1 unit
2c) Eastlake Parkway, North Village Entry to Birch Drive.	Developer Exaction	533 units
2d) Eastlake Parkway, Birch Road to Hunte Pkwy	Developer Exaction	1446 units
3) Birch Road, La Media Road to Eastlake Parkway EastLake Parkway	Developer Exaction	1856 units
4a) Hunte Parkway, Olympic Parkway to North project access	Developer Exaction	1 units
4b) Hunte Parkway, North Project Access to south of SDG&E easement	Developer Exaction	1446 units
4c) Hunte Parkway, North of SDG&E easement to Eastlake Parkway	Developer Exaction	1446 units
5) La Media Road: Birch Road to Olympic Pkwy	Developer Exaction	1856 units
6) Internal link between R-1 and R-11	Developer Exaction	533 units
7) Otay Lakes Road, E. H Street to Telegraph Cyn Rd. (6 lanes if no SR-125 prior to 2005)	Developer Exaction	944 units
Sewer	Developer Build Pay City Fees	Concurrent w/ Phasing Building Permit
Drainage	Developer Build	Per Ordinance
Water	Pay OWD Capacity Fees	Pay @ purchase of Water Meters
Police	Pay PFDIF	Building Permit
Fire/EMS	Pay PFDIF	Building Permit
Schools	SUHSD No. 12	Annex to District
	CVESD No. 6	Annex to District
Library	Pay PFDIF	Building Permit
Parks		
Neighborhood Park		
1. I.O.D. to City	PAD Credit/Fees	Prior to 1st D.U.
2. Start Construction	PAD Credit/Fees	Prior to 360th D.U.
3. Complete for City Acceptance	PAD Credit/Fees	9 mos. after const start
Town Square	PAD Credit/Fees	Prior to last Res. Bldg. Permit in 2nd Phase.
Community Park	PAD Fees	Prior to 1st F.M.
Civic Center	Pay PFDIF	Building Permit
Corp. Yard	Pay PFDIF	Building Permit
Other Public Facilities	Pay PFDIF	Building Permit

II.5.2 INTRODUCTION

II.5.2.1 Overview

The City of Chula Vista has looked comprehensively at issues dealing with development and the additional impacts it places on public facilities and services. The approval of the Threshold Ordinance and the General Plan update were the first steps in the overall process of addressing growth related issues. The second step in this process was the development and adoption of a specific Growth Management Element, which set the stage for the creation of the City's Growth Management Program.

The Chula Vista City Council adopted the Growth Management Program and Implementing Ordinance No. 2448 on May 28, 1991. These documents implement the Growth Management Element of the General Plan, and establish a foundation for carrying out the development policies of the City by directing and coordinating future growth in order to guarantee the timely provision of public facilities and services.

The Growth Management Ordinance requires a Public Facilities Finance Plan (PFFP) to be prepared for future development projects requiring a Sectional Planning Area (SPA) Plan or Tentative Map. The contents of the PFFP are governed by Section 19.09.060 of the Municipal Code, which requires that the plan show how and when the public facilities and services identified in the Growth Management Program will be installed or financed.

II.5.2.2 Purpose

The purpose of the Public Facilities Finance Plan is to implement the City's Growth Management Program and to meet the General Plan goals and objectives as well as the Growth Management Element goals and objectives. The Chula Vista Growth Management Program implements the City's General Plan and Zoning Ordinance by ensuring that development occurs only when necessary public facilities and services exist or are provided concurrent with the demands of new development.

II.5.2.3 Growth Management Threshold Standards

City Council Resolution No. 13346 identified 11 (11) public facilities and services with related threshold standards and implementation measures. These public facilities and services were listed in a policy statement dated November 17, 1987 and have subsequently been refined based on recommendations from the Growth Management Oversight Commission (GMOC).

The 11 public facilities and services include:

- Traffic
- Police
- Fire/EMS
- Schools
- Libraries
- Parks and Recreation
- Water
- Sewer
- Drainage
- Air Quality
- Fiscal

During development of the Growth Management Program two new facilities were added to the list of facilities to be analyzed in the PFFP:

- Civic Facilities
- Corporation Yard

Threshold standards are used to identify when new or upgraded public facilities are needed to mitigate the impacts of new development. Development approvals will not be made unless compliance with these standards can be met. These threshold standards have been prepared to guarantee that public facilities or infrastructure improvements will keep pace with the demands of growth.

II.5.2.4 The Otay Ranch Village 11 Project

The Otay Ranch Village 11 project is located in the eastern portion of the Chula Vista City limits. The undeveloped 489-acre site is located in the Otay Valley Parcel of Otay Ranch and includes approximately 489 acres of gently rolling terrain. Exhibit 1 illustrates the regional location of Village 11 and its proximity to existing development. The location of the Village 11 SPA within the overall Otay Ranch development is depicted in the vicinity map, Exhibit 2.

Olympic Parkway defines the Village 11 planning area on the north, Hunte Parkway on the south and east and EastLake Parkway on the west. The existing residential neighborhood of EastLake Greens is located to the north. Otay Ranch Planning Area 12, comprised of the proposed Eastern Urban Center (EUC) and Freeway Commercial (FC) developments, is located on the west side of EastLake Parkway. Future phases of the Otay Ranch community, in particular a university site, are planned for the adjacent vacant property to the south. The vacant land to the east in Salt Creek is to be incorporated in the regional Otay Ranch preserve.

The proposed Village 11 SPA plan is consistent with the Otay Ranch GDP Land Use Plan and the GDP Village 11 Land Use Plan. The Otay Ranch Village 11 project will consist of 2,304 residential dwelling units on 489.0 acres. The Otay Ranch GDP Village 11 Land Use Plan indicates a dwelling count of 2,390 units on 489.0 acres. The SPA plan proposes all the land uses comprising a village as envisioned by the GDP. The Village 11 SPA Land Use includes 996 single family detached and 1,308 multi-family units. More specifically, Village 11 provides a variety of housing types: single family detached (1,311 units), single family attached (678 units) and multi-family (315 units). Other land uses include: 10.0 acres of mixed use, 8.0 acres of public Neighborhood Park area (includes a 1 acre private Town Square), 6.8 gross acres of private recreational facility, a 11.0 acre elementary school site, 25.6 acre Junior High School site, 5.5 acres for Community Purpose Facilities (CPF), 49.2 acres of open space and 66.2 acres for major circulation facilities.

The Otay Ranch GDP requires CPF land area at a ratio of 1.39 acres per 1,000 residents. Based on this ratio, 9.6 acres of CPF is required for Village 11. This requirement will be partially met through the 5.5-acre site located adjacent to the Town Square in the village core. The Village 11 SPA Plan also allows for CPF uses within the mixed-use areas in the village core and in the neighborhood park site to provide flexibility in the siting and design of the CPF uses. The GDP allows CPF land to be transferred between villages or combined within villages as long as the space requirements are satisfied. Actual CPF acreage requirements will be based on the residential units (and projected population) approved on the Tentative Map.

The Otay Ranch GDP requires designation of parkland based on the Quimby Act standard of 3 acres per 1,000 residents. For Village 11, the GDP requires a one-acre town square, a 7 to 10-acre neighborhood park within the village core, and the remaining acreage requirement to be fulfilled through a contribution to community parks outside of the village. The Village 11 SPA estimates a population of 6,935 residents, which requires approximately 20.8 acres of parkland. The Village 11 SPA Plan provides 8 acres of city parks (7 acre Neighborhood Park and a 1 acre private Town Square). The additional required city park acreage will be fulfilled through a contribution to community parks elsewhere in Otay Ranch. Actual park acreage requirements will be based on the residential units (and projected population) approved on the Tentative Map. Section II.5.4.6 Parks, Recreation, Open Space and Trails, provides additional information on park allocations in Village 11.

II.5.2.5 Public Facilities Finance Plan Boundaries

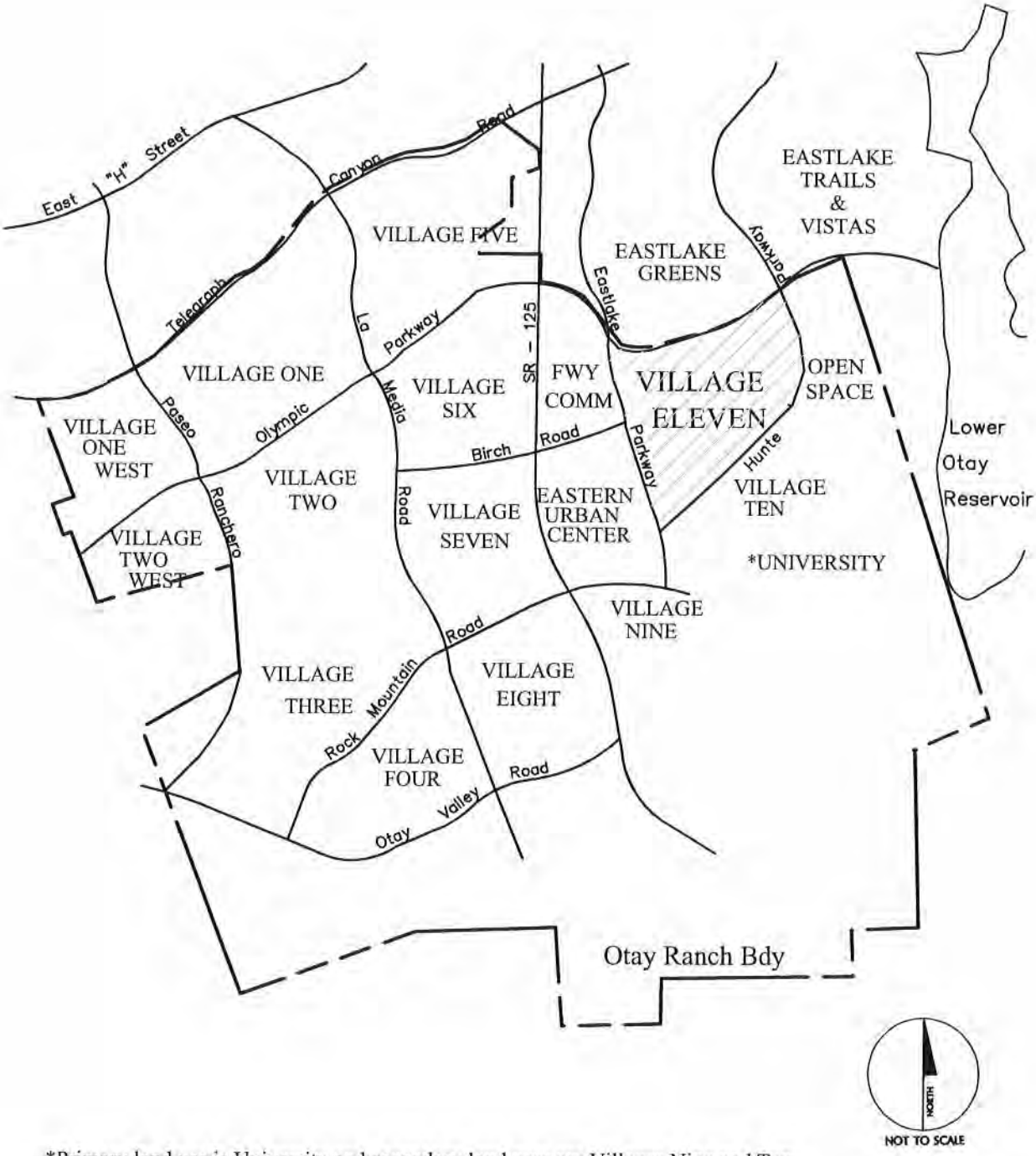
Section 19.12.070 of the Municipal Code requires that the City establish the boundaries of the PFFP at the time a SPA Plan or Tentative Map is submitted by the applicant. The boundaries shall be based upon the impact created by the Project on the existing and future need for facilities. The project boundaries will correlate the proposed development project with existing and future development proposed for the area of impact to provide for the economically efficient and timely installation of both onsite and offsite facilities and improvements required by the development. In establishing the boundaries for the PFFP, the City shall be guided by the following considerations:

1. Service areas, drainage, sewer basins, and pressure zones that serve the Project;
2. Extent to which facilities or improvements are in place or available;
3. Ownership of property;
4. Project impact on public facilities relationships, especially the impact on the City's planned major circulation network;
5. Special district service territories;
6. Approved fire, drainage, sewer, or other facilities or improvement master plans.

The boundaries of the PFFP for the Otay Ranch Village 11 project are congruent with the SPA Plan boundaries. Also, the PFFP addresses certain facilities (streets, drainage, sewer, police, fire, etc.) that are impacted beyond the boundaries of the SPA Plan.

Not to Scale

Regional Location Map
Exhibit 1



*Primary land use is University and secondary land uses are Villages Nine and Ten.

Exhibit 2
Vicinity Map

II.5.3 LAND USE ASSUMPTIONS

II.5.3.1 Purpose

The purpose of this section is to quantify how the Otay Ranch Village 11 project will be analyzed in relationship to all other projects, which are at some stage in the City's development process. The Growth Management Program addressed the issue of development phasing in relationship to location, timing, and fiscal/economic considerations.

Based upon the overall elements to be considered when projecting the phasing of development and policies contained in the Growth Management Program, the City was able to forecast where and when development will take place and produced a 5 year Development Phasing Forecast. Subsequent to the approval of the Growth Management Program, the forecasted development phasing has been updated periodically as facility improvements are made and the capacity for new development becomes available. The current update is dated November 29, 2000 and is summarized on Table A.3.

The specific factors, which affect the development phasing forecast, include the status of development approvals and binding development agreements, and the future construction of State Route 125. These components were reviewed as part of this PFFP in conjunction with the requirement to provide facilities and services, concurrent with the demand created by the Otay Ranch Village 11 to maintain compliance with the threshold standards.

The management of future growth includes increased coordination of activities of the various City departments as well as with both the School Districts and the Water Districts that serve the City of Chula Vista. The development phasing forecast is a component of the City of Chula Vista's Growth Management Program. The Planning and Building Department provides annual growth forecasts for two time frames; 18 months and a 5-year period. This information enables City departments and the other aforementioned service agencies to assess the probable impacts that growth may have on maintaining compliance with the City's facilities and service Threshold Standards. In addition, with this data City departments and the other service agencies will be able to report potential impacts to the GMOC.

II.5.3.2 Existing Development

As a starting point, the PFFP considers all existing development up to January 2000 as the base condition. This information is based upon City of Chula Vista Planning and Building Department growth management monitoring data. According to this and other data, the population of the City as of January 1999 was estimated to be 174,319 based on a January 2000 estimate from the California Department of Finance (DOF).

For the purposes of projecting facility demands for the Otay Ranch Village 11 the City of Chula Vista utilizes a 1999 population coefficient of 3.01 persons per dwelling unit. This factor is used throughout this PFFP to calculate facility demands from approved projects. The coefficient has been confirmed for use in the PFFP by the Planning Department. The same coefficient will be used for calculating the specific Otay Ranch Village 11 facility demands.

Table A.3

CITY OF CHULA VISTA PLANNING AND BUILDING DEPARTMENT 5-YEAR RESIDENTIAL FORECAST
EASTERN CHULA VISTA MAJOR PROJECTS
Number of Housing Units Being Finaled by Housing Type (MF= Multi-Family, SF = Single Family)
2000 THROUGH 2005

Map Ref.	PROJECTS	YEAR																		Total 2000 to 2005
		2000			2001			2002			2003			2004			2005			
		MF	SF	Total	MF	SF	Total	MF	SF	Total	MF	SF	Total	MF	SF	Total	MF	SF	Total	
	Otay Ranch																			
	Otay Ranch Co																			
31	Village 1	0	400	400	300	100	400	125	100	225	125	100	225	200	200	400	150	150	300	1,950
33	Village 1 West			0		25	25		50	50		75	75		100	100		100	100	350
34	Village 2			0			0			0			0		0	0		200	200	200
35	Village 6			0			0			0			0		50	50		150	150	200
	Pacific Coast Communities																			
31	Village 5		50	50		100	100		100	100		100	100		125	125		125	125	600
	McMillin Companies																			
31	Village 1		80	80		77	77		82	82			0			0			0	239
36	Village 5	220	221	441	131	150	281		125	125	18	100	118			0			0	965
35	Village 6			0			0		0	0		100	100		150	150		159	159	409
37	Village 7														0	0	0	125	125	125
	New Millennium																			
38	Village 11			0			0	0	0	0	100	125	225	100	150	250	100	150	250	725
	EastLake																			
25	Eastalke Greens	124	18	142	128	0	128		0	0		0	0		0	0			0	270
28	EastLake Land Swap			0			0			0			0			0	200		200	200
26	EastLake Trails	36	311	347	71	383	454	79	232	311			0			0			0	1,112
27	EastLake Vistas			0			0		150	150		188	188		125	125	250	267	517	980
24	EastLake Woods			0			0		172	172		287	287		114	114		54	54	627
	Rancho del Rey																			
3	Rancho del Rey I		9	9			0			0			0			0			0	9
4	Rancho del Rey II		83	83			0			0			0			0			0	83
5	Rancho del Rey III		117	117		8	8			0			0			0			0	125
18	Rolling Hills		300	300	116	300	416	168	300	468		300	300		300	300		165	165	1,949
26	Sunbow II	132	251	383	156	204	360	300	175	475	284	150	434		125	125		54	54	1,831
19	Bella Lago			0			0			0			0			0			0	-
30	San Miguel			0		75	75		300	300	100	250	350	119	175	294		250	250	1,269
39	Vista Mother Miguel			0			0			0		20	20		20	20			0	40
	Unit Totals	512	1,840	2,352	902	1,422	2,324	672	1,786	2,458	627	1,795	2,422	419	1,634	2,053	700	1,949	2,649	14,258

II.5.3.3 Development Phasing Forecast

A summary of the latest development phasing forecast is shown in Table A.3. The table presents an estimate of the amount of development activity anticipated to the year 2005. The total number of dwelling units projected to be built by the year 2005 is 14,258 dwelling units. It should be noted that these projections are used for analytical purposes only and unless a development agreement or other legal instrument guarantees facility capacity, some projects with varying levels of entitlement may not have committed capacity.

II.5.3.4 Otay Ranch Village 11 Development Summary

The Otay Ranch Village 11 project is proposed to include a total of 2,304 dwelling units and other land uses constructed in three phases as shown on Exhibit 3 and 4 and in Table B and B.1.

Table B
Village 11 SPA Land Use Plan

Land Use Designation		Total Acres	Total Dwelling Units	Dwelling Units/Acres
LMV	Low-Medium Village	166.0	810	4.9
M	Medium	75.7	501	6.9
MH	Medium-High	53.2	678	12.7
MU[1]	High/Mixed Use Residential	10.0	315	15.8
Subtotal		**304.9**	**2,304**	
MU[2]	Commercial	10.0		
CPF[3]	Community Purpose	5.5		
K-6	Elementary School	11.0		
JHS	Junior High School	25.6		
Subtotal		**52.1**	**2,304**	
P-1[4]	Neighborhood Park	8.9		
P-2	Private Common Open Space	3.8		
P-3	Private Common Open Space	3.0		
P-4	Town Square	1.0		
OS	Open Space	49.2		
Subtotal		**65.9**		
Major & Collector Streets		66.2		
Project Total		**489.1**	**2,304**	

The residential designated areas include the Low-Medium density, Medium density, Medium-High density and Mixed Use. Also included within the project are approximately 10.0 acres of commercial uses within the mixed use designation, 7.0 net acres of public Neighborhood Park area, 1 acre net Town Square site, 6.8 gross acres of private recreational areas, 11.0 acre elementary school site, 25.6 acre Junior High School site, 5.5 acres for community purpose facilities (the mixed use/commercial area may provide community oriented facilities), 50.1 acres of open space and 66.2 acres for major circulation facilities.

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[1] Residential and Commercial uses are permitted in the Mixed Use (MU) Land Use category.

[2] Mixed Use is a total of 10 acres for both residential and commercial, but as a mixed-use area, the 10 acres is included once.

[3] CPF acreage requirement is based on 1.39 acres of net usable land/1000 persons. Based on an estimated 6,935 persons, the requirement is 9.6 acres. A 5.5-acre CPF site is proposed in the village core and additional CPF facilities may be accommodated within the MU and NP areas of the village or transferred to another village.

[4] The actual net public park acreage is 7.0. The proposed plan requires 20.68 acres of parkland, based on 3 acres per 1000 persons. Consistent with the GDP, the additional acreage requirement will be provided by a contribution to community parks elsewhere in Otay Ranch.

NEIGHBORHOOD AREA	LAND USE	APPROX. GROSS ACREAGE	TARGET DU'S/AC	DWELLING UNITS
R-1	SF	26.7	6.1	163
R-2	SF	14.2	3.3	47
R-3	SF	15.3	3.0	46
R-4	SF	12.4	4.4	55
R-5	SF	7.5	4.6	34
R-6	SF	7.5	5.1	38
R-7	SF	11.4	5.9	67
R-8	SF	11.2	5.2	58
R-9	SF	11.6	5.2	60
R-10	SF	18.0	4.9	89
R-11	SF	7.7	4.4	34
R-12	SF	11.1	5.1	57
R-13	SF	11.4	4.7	54
R-14	SF	11.0	4.9	54
R-15	SF	10.3	6.5	67
R-16	SF	8.5	6.9	59
SUBTOTAL	**SF**	**195.8**	**5.0**	**982**
R-17	MF	18.5	8.0	180
R-18	MF	12.5	12.5	112
R-19	MF	11.6	18.0	167
R-20	MF	10.6	8.0	78
R-21	MF	10.5	12.5	102
R-22	MF	8.4	15.0	90
R-23	MF	16.8	8.0	119
R-24	MF	10.2	15.0	169
R-25	MF	10.0	25.0	190
SUBTOTAL	**MF**	**109.1**	**11.1**	**1,207**
MU	MU	10.0	11.5	115
SUBTOTAL	**RES.**	**314.9**		**2,304**
MU-1	COMM.	10.0		
SUBTOTAL	**COMM.**	**10.0**		
CPF	CPF	5.5		
SUBTOTAL	**CPF**	**5.5**		
P-1	PARK	8.9		
P-2	PARK	3.8		
P-3	PARK	3.0		
P-4	PARK	1.0		
SUBTOTAL	**PARK**	**16.7**		
S-1 / K-6	SCHOOL	11.0		
S-2 / Jr. H S.	SCHOOL	25.6		
SUBTOTAL	**SCHOOL**	**36.6**		
Hunte Parkway	ROAD	24.2		
Olympic Parkway	ROAD	9.3		
Eastlake Parkway	ROAD	7.2		
W^{n} Circulation Sts	ROAD	17.4		
E^{n} Circulation Sts	ROAD	8.1		
SUBTOTAL	**ROAD**	**66.2**		
Green Buffer	O.S.	27.6		
Easemt thru Property	O.S.	18.8		
Paseo Area in West	O.S.	1.5		
Paseo Area in East	O.S.	1.3		
SUBTOTAL	**O.S.**	**49.2**		
TOTAL		**489**		**2,304**

* PROPOSED DENSITY TRANSFER

Exhibit 3
Site Utilization Plan

Development of the Village 11 SPA Plan will be completed in three sequential phases to ensure construction of necessary infrastructure and amenities for each phase as the project progresses. Three phases of development are envisioned for Village 11. The Phasing Plan (Exhibit 4) reflects the anticipated market demand for a variety of housing types and commercial development.

Phase 1: This phase will commence first in the project and will be initiated in the northern area of the village with the development of 532 single-family units. A minimum of four distinct housing types of Medium and Low-Medium Village densities will be developed in the first phase. Phase 1 development will include the public Neighborhood Park and any needed infrastructure. This phase will include the completion of Olympic Parkway between State Route 125 (SR-125) and Hunte Parkway. This phase also includes the construction of a portion of Hunte Parkway between Olympic to North Project Access. In addition, this phase includes interior streets within the neighborhood developments and the private common open space in the eastern area of the village.

Phase 2: This phase, which will follow phase 1, will complete the residential development (including streets and paseos) approximately one half of the village west of the San Diego Gas & Electric (SDG&E)/San Diego County Water Authority (SDCWA) easement. Phase 2 will also complete the village east of the SDG&E/SDCWA easement and encompass the village core area and residential development. This phase will provide the internal link between R-1 and R-11. Phase 2 residential development will provide 328 single-family units with Medium and Low-Medium Village densities, 386 single family attached/multi-family units with Medium and Medium-High densities and a Mixed Use site with 315 multi-family units. The village core, including the Mixed Use/Commercial, Community Purpose Facility and Elementary School sites are planned in this phase.

Phase 2 includes the construction of EastLake Parkway from the North Village Entry to Birch Road and Hunte Parkway from the North Project Entry (Driveway "I," LL&G Traffic Impact Analysis) to South of SDG&E easement. Further, this phase includes an internal link between R-1 (Phase 1) and P-1 (Phase 1) plus the interior streets within the neighborhood developments.

Phase 3: The third phase, is the last phase of the project following phase 1 and phase 2. This phase will complete the southwestern portion of the village with the addition of 451 single-family units and 292 multi-family units. The Junior High School site will also be made available for development.

This phase will include the completion of EastLake Parkway form Birch Road to Hunte Parkway and Hunte Parkway from South of the SDG&E easement to EastLake Parkway. Further, this phase includes the interior streets within the neighborhood developments.

Additional roadway improvements may be required in the aforementioned phases of the project pursuant to the established cumulative roadway unit triggers (see Traffic Section II.5.4.1 of this document). Table B.2 summarizes the development acres of specific land uses and the number of residential units proposed in each phase for Village 11 development.

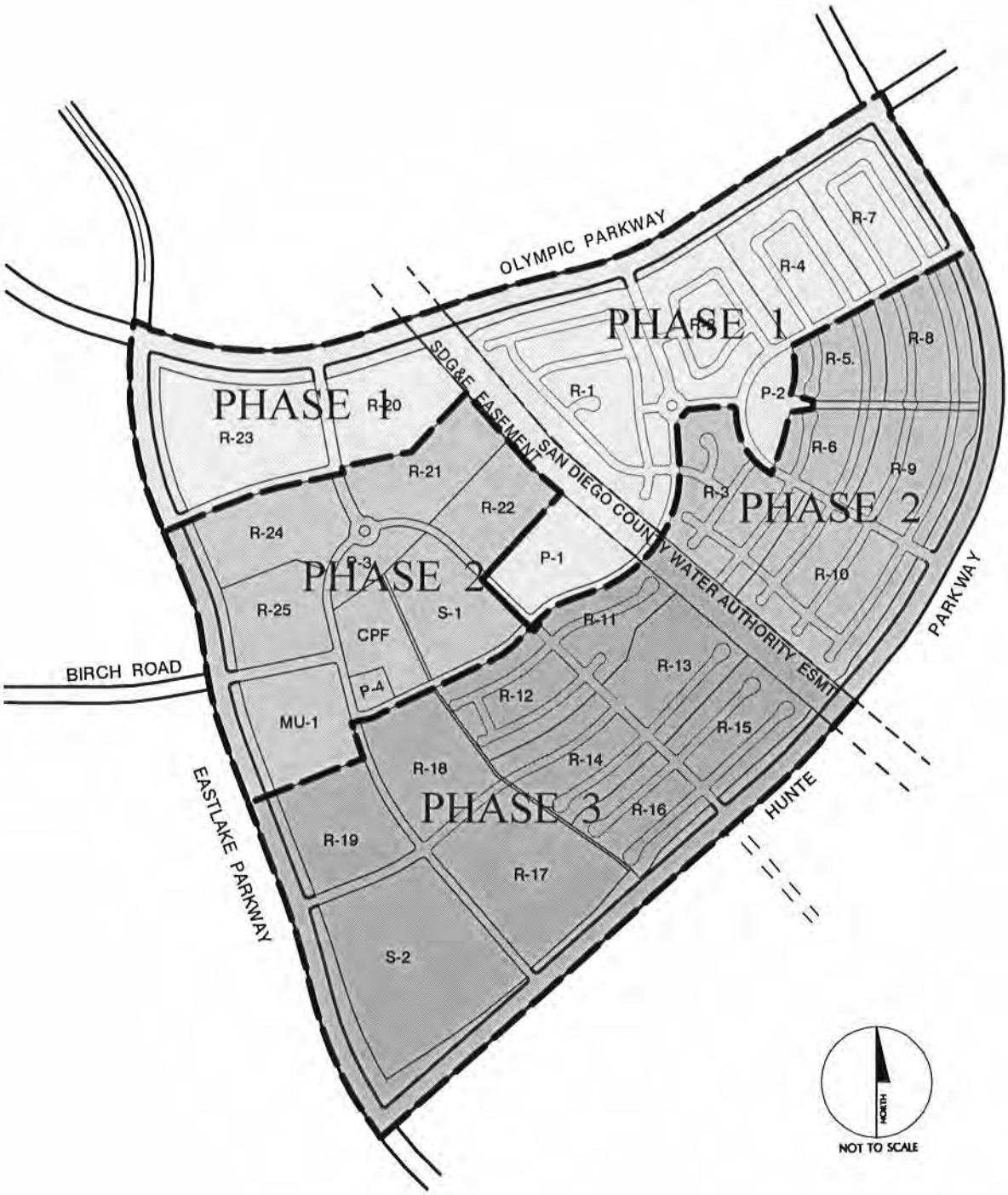


Exhibit 4
Conceptual Phasing Plan

Table B.1
Village 11 Phasing Plan Summary

Area	Land Use	Gross Acres	Dwelling Units	Target du/ac	Housing Type
PHASE 1					
R-1	SF	26.7	164	6.1	SF detached
R-2	SF	14.2	46	3.2	SF detached
R-4	SF	12.4	55	4.4	SF detached
R-7	SF	11.4	70	6.1	SF detached
R-20	MF	10.6	78	8.0	SF detached
R-23	MF	16.8	119	8.0	SF detached
Subtotal		92.1	532		SF detached
P-1	Neigh. Park	8.9			
P-2	Private Recreational facilities.	3.8			
	Open Space	22.3			
	Streets*	22.2			
Subtotal		57.2			
Phase 1 Total		**149.3**	**532**		
PHASE 2					
R-3	SF	15.3	46	3.0	SF detached
R-5	SF	7.5	37	5.0	SF detached
R-6	SF	7.5	35	4.7	SF detached
R-8	SF	11.2	64	5.7	SF detached
R-9	SF	11.6	60	5.2	SF detached
R-10	SF	18.0	86	4.8	SF detached
Subtotal		71.1	328		SF detached
R-21	MF	10.5	112	12.5	SF attached
R-22	MF	8.4	105	15.0	SF attached
R-24	MF	10.2	169	15.0	SF attached
Subtotal		29.1	386		SF attached
R-25	MF	10.0	200	25.0	MF
MU	Mixed-Use	10.0	115	11.5	MF
Subtotal		20.0	315		MF
CPF	Comm. Purpose	5.5			
S-1	Elem. School	11.0			
P-3	Private Recreational facilities.	3.0			
P-4	Town Square	1.0			
	Open Space	9.0			
	Streets*	20.5			
Subtotal		50.0			
Phase 2 Total		**170.2**	**1,029**		

* Table does not include street area outside of property boundary.
Note: R-17, R-20 & R-23 are designated as a multi-family land use, however, they are planned as small lot single family detached.

Table B.1 Continued Village 11 Phasing Plan Summary					
PHASE 3					
Area	**Land Use**	**Gross Acres**	**Dwelling Units**	**Target du/ac**	**Housing Type**
R-11	SF	7.7	36	4.7	SF detached
R-12	SF	11.1	58	5.2	SF detached
R-13	SF	11.4	53	4.6	SF detached
R-14	SF	11.0	56	5.1	SF detached
R-15	SF	10.3	68	6.6	SF detached
R-16	SF	8.5	62	7.3	SF detached
R-17	MF	18.5	118	8.0	SF detached
Subtotal		78.5	451		SF detached
R-18	MF	12.5	125	12.5	SF attached
R-19	MF	11.6	167	18.0	SF attached
Subtotal		24.1	292		SF attached
S-2	Jr.H. School	25.6			
	Open Space	17.9			
	Streets*	23.5			
Subtotal		67.0			
Phase 3 Total		**169.6**	**743**		
TOTAL		**489.1**	**2.304**		

II.5.3.5 Equivalent Dwelling Units

Transportation

The current Transportation Development Impact Fees (TDIF) Ordinance sets forth the calculation of development impact fees for the Eastern Territories transportation improvements and for Interim Pre-SR125 facilities.

The TDIF adopted by the City Council on October 1, 2000 is $6,065 per Equivalent Dwelling Unit (EDU). Each new single-family detached dwelling shall be considered one EDU for the purposes of this fee. A single-family attached dwelling shall be 0.8 EDUs. A unit within a multi-family dwelling shall be considered 0.6 EDUs. Commercial/Office (under five stories in height) shall be charged at the rate of 25.0 EDUs per gross acre of land. The EDU rate for each CPF use shall be charged at the rate of 4.0 EDUs per gross acre of land.

Table B.2 Village 11 EDUs by Phase for Transportation and Interim SR-125 Facilities						
Land Use	**DU's**	**Acres**	**EDUs by Phase**			
			Phase 1	**Phase 2**	**Phase 3**	**Total EDUs**
SF-Detached	1,311		532	328	451	1,311
SF-Attached	678		0	309	234	543
MFR	315		0	189	0	189
Commercial	0	10.0	0	250	0	250
CPF	0	5.5	0	22	0	22
EDUs/Phase			532	1,098	685	2,315

There is currently no TDIF designation for the Mixed Use (MU) land use. Therefore the land within the Mixed Use site that generates the highest EDU count shall prevail. The Commercial/Office (under five stories in height) rate of 25.0 EDUs per gross acre of land shall be applied to the Village 11 MU site.

The current Interim Pre-SR-125 Development Impact Fee is $820 per EDU (City Council Resolution 2579). The same EDU rates apply to the Interim Pre-SR-125 Development Impact Fee as for the TDIF.

Public Facilities

The current Public Facilities Development Impact Fee is $2,618 per EDU. The following table of equivalent dwelling units (EDUs) applies to the calculation of impact fees in accordance with Ordinance 2554, as amended, for public facilities. The fee funds, in part, the following facilities:

Table B.3
Village 11 EDU Fee for Public Facilities

Public Facility	Fee
1. Civic Center Expansion	$480
2. Police Facility and Equipment	$735
3. Corporation Yard/Animal Shelter	$386
4. Libraries	$638
5. Fire Suppression System	$203
6. GIS, Computer Systems, Telecommunications, Records Management System	$42
Subtotal	**$2,484**
7. PFDIF Administration	$134
Total	**$2,618**

Each new single-family detached dwelling, single family attached dwelling, or unit within a multi-family dwelling in a Development Project shall be considered one EDU for purposes of this fee. Commercial/Office and Industrial development Projects shall be charged at the rate of 5.0 EDUs per gross acre of land. The EDU rate for each CPF use shall be charged at the rate of 3 EDUs per gross acre of land. The calculations of PFDIF due for each facility addressed in the following sections of this report do not include the $134 amount for administration of the PFDIF. However, this amount is collected as part of the $2,618 fee per EDU

Table B.4
Village 11 EDUs by Phase for Public Facilities

Land Use	DU's or Acres	EDUs by Phase			
		Phase 1	Phase 2	Phase 3	Total EDUs
RESIDENTIAL	2,304 DU	532	1,029	743	2,304
COMMERCIAL	10 Acres	0	50	0	50
CPF	5.5 Acres	0	17	0	17
EDUs/Phase		532	1,096	743	2,371

II.5.4 FACILITY ANALYSIS

This portion of the PFFP contains 13 separate subsections for each facility addressed by this report. Of the 13 facilities, 11 have adopted threshold standards; the Civic Center and Corporation Yard do not. Table B.5 highlights the level of analysis for each facility.

Table B.5
Level of Analysis

Facility	Citywide	East of I-805	Service Area Sub-basin	Special District
Traffic	✓	✓		
Police	✓			
Fire/EMS	✓		✓	
Schools				✓
Libraries	✓			
Parks, Recreation & Open Space		✓		
Water			✓	✓
Sewer			✓	
Drainage			✓	
Air Quality	✓			
Civic Center[5]	✓			
Corp. Yard[1]	✓			
Fiscal	✓		✓	

Each subsection analyzes the impact of the Otay Ranch Village 11 Project based upon the adopted Quality of Life Standards. The analysis is based upon the specific goal, objective, threshold standard and implementation measures. The proposed SPA plan is used to determine facility adequacy and is referenced within the facility section.

Each analysis is based upon the specific project processing requirements for that facility, as adopted in the Growth Management Program. These indicate the requirements for evaluating the project consistency with the threshold ordinance at various stages (General Development Plan, SPA Plan/Public Facilities Finance Plan, Tentative Map, Final Map and Building Permit) in the development review process.

A service analysis section is included which identifies the service provided by each facility. The existing plus forecasted demands for the specific facility are identified in the subsection based upon the adopted threshold standard.

Each facility subsection contains an adequacy analysis followed by a detailed discussion indicating how the facility is to be financed. The adequacy analysis provides a determination of whether or not the threshold standard is being met and the finance section provides a determination if funds are available to guarantee the improvement. If the threshold standard is not being met, mitigation is recommended in the Threshold Compliance and Recommendations subsection which proposes the appropriate conditions or mitigation to bring the facility into conformance with the threshold standard.

[5] Specific Threshold Standards have not been developed for these facilities

II.5.4.1 TRAFFIC

II.5.4.1.1 GMOC Threshold Standard

1. Citywide: Maintain Level of Service (LOS) "C" or better, as measured by observed average travel speed on all signalized arterial segments except that during peak hours a LOS of"D" can occur for no more than any two hours of the day.
2. West of Interstate 805: Those signalized intersections which do not meet the standard above may continue to operate at their current LOS, but shall not worsen.

II.5.4.1.2 GMOC Level of Service (LOS) Definition

Six levels of services (LOS) have been defined varying from A (free flow) to F (severe congestion). A general definition of LOS is summarized in Table C. The City of Chula Vista's GMOC uses an LOS definition for signalized arterial segments as a method for evaluating and comparing traffic conditions. Arterial LOS measurements consider average weekday peak hours and exclude seasonal and special circumstance variations. The following table summarizes the GMOC Traffic Quality of Life Threshold Standard for signalized arterial streets:

Table C
GMOC LOS Definition

Level of Service	Average Travel Speed (mph)		
	Class 1	Class 2	Class 3
A	> 35	> 30	> 25
B	> 28	> 24	> 19
C	> 22	> 18	> 13
D	> 17	> 14	> 9
E	> 13	> 10	> 7
F	< 13	< 10	< 7

SOURCE: Highway Capacity Manual, Special Report 209, 1985.

The arterial streets are divided into the following three classifications:

(1) Class I arterials are roadways where free flow traffic speeds range between 35 mph and 45 mph and the number of signalized intersections per mile is less than four (4). There is no parking and there is generally no access to abutting property.

(2) Class II arterials are roadways where free flow traffic speeds range between 30 mph and 35 mph, the number of signalized intersections per mile range between four (4) and eight (8). There is some parking and access to abutting properties is limited.

(3) Class III arterials are roadways where free flow traffic speeds range between 25 mph and 35 mph, and the number of signalized intersections per mile are closely spaced. There is substantial parking and access to abutting property is unrestricted.

II.5.4.1.3 Freeway Segment LOS and Thresholds

The analysis of freeway segment LOS is based on the procedure developed by Caltrans District 11, which is based on methods described in the *1965 Highway Capacity Manual.* The procedure involves comparing the peak hour volume of the mainline segment to the theoretical capacity of the roadway (V/C). Directional and truck factors are also used to calculate the future freeway volumes. V/C ratios are then compared to the V/C ranges shown on the tables

to determine the LOS for each segment. Caltrans recommends LOS E or better as an acceptable threshold for determining impacts on the regional freeway system. LOS E is used as the threshold of significance because a decrease from this level of service to LOS F determines the need to develop a freeway Deficiency Plan.

Caltrans LOS Definition

The concept of LOS is defined as a qualitative measure describing operational conditions within a traffic stream, and the motorist and/or passengers' perception of operations. A LOS definition generally describes these conditions in terms of such factors as speed, travel time, freedom to maneuver, comfort, convenience, and safety. LOS for freeway segments can generally be categorized per Table C.1.

Table C.1
Caltrans District 11 Freeway Segment LOS Definitions

LOS	V/C	Congestion/Delay	Traffic Description
Used for freeways, expressways and conventional highways			
A	<0.41	None	Free flow
B	0.42-0.62	None	Free to stable flow, light to moderate volumes.
C	0.63-0.80	None to minimal	Stable flow, moderate volumes, freedom to maneuver noticeably restricted
D	0.81-0.92	Minimal to substantial	Approaches unstable flow, heavy volumes, very limited freedom to maneuver.
E	0.93-1.00	Significant	Extremely unstable flow, maneuverability and psychological comfort extremely poor.
Used for conventional highways			
F	<1.00	Considerable	Forced or breakdown flow. Delay measured in average travel speed (MPH). Signalized segments experience delays >60.0 sec./vehicle
Used for freeways and expressways			
F(0)	1.01-1.25	Considerable 0-1 hr delay	Forced flow, heavy congestion, long queues form behind breakdown points, stop and go.
F(1)	1.26-1.35	Severe 1-2 hr delay	Very heavy congestion, very long queues.
F(2)	1.36-1.45	Very Severe 2-3 hr delay	Extremely heavy congestion, longer queues, more numerous breakdown points, longer stop periods.
F(3)	>1.46	Extremely Severe 3+ hours of delay	Gridlock

SOURCE: Caltrans 1992

II.5.4.1.4 Roadway Segment LOS Standards and Thresholds

This section presents the LOS standards and thresholds utilized by the City of Chula Vista to analyze arterial roadway segment performance. Table C.3 presents the City of Chula Vista roadway segment capacity and LOS standards for arterial roadways.

Table C.2 Arterial Segment LOS Threshold Descriptions	
LOS	**Description**
A	Describes primarily free-flow operations. Average operating speeds at the free-flow speed generally prevail. Vehicles are almost completely unimpeded in their ability to maneuver within the traffic stream.
B	Also represents reasonably free-flow, and speeds at the free-flow speed are generally maintained. The ability to maneuver within the traffic stream is only slightly restricted, and the general level of physical and psychological comfort provided to drivers is still high.
C	Provides for flow with speeds still at or near the free-flow speed of the roadway. Freedom to maneuver within the traffic stream is noticeably restricted at LOS C, and lane changes require more vigilance on the part of the driver. The driver now experiences a noticeable increase in tension because of the additional vigilance required for safe operation.
D	The level at which speeds begin to decline slightly with increasing flows. In this range, density begins to deteriorate somewhat more quickly with increasing flows. Freedom to maneuver within the traffic stream is more noticeably limited, and the driver experiences reduced physical and psychological comfort levels.
E	Describes operation at capacity. Operations in this level are volatile, because there are virtually no usable gaps in the traffic stream. At capacity, the traffic stream has no ability to dissipate even the most minor disruptions, and any incident can be expected to produce a serious breakdown with extensive queuing.
F	Describes breakdowns in vehicular flow. Such conditions generally exist within queues forming behind breakdown points such as traffic incidents and recurring points of congestion. Whenever LOS F conditions exist, there is a potential for them to extend upstream for significant distances.

SOURCE:Highway Capacity Manual, 1994.

Table C.3 Chula Vista Segment Capacity and LOS Standards Average Daily Traffic Volumes					
Functional Classification	**Level of Service**				
	A	**B**	**C**	**D**	**E**
Expressway (6-lane)	52,500	61,300	70,000	78,800	87,500
Prime Arterial (6-lane)	37,500	43,800	50,000	56,300	62,500
Major Street (6-lane)	30,000	35,000	40,000	45,000	50,000
Major Street (4-lane)	22,500	26,300	30,000	33,800	37,500
Class I Collector (4-lane)	16,500	19,300	22,000	24,800	27,500
Class II Collector (3-lane)	9,000	10,500	12,000	13,500	15,000
Class III Collector (2-lane)	5,600	6,600	7,500	8,400	9,400

SOURCE: City of Chula Vista Street Design Standards Policy (July 1991)

The analysis of street segment LOS is based on the functional classification of the roadway, the maximum desired level of service capacity, roadway geometries, and the existing or forecasted average daily traffic (ADT) volume. City of Chula Vista LOS D were utilized to determine if a segment would operate over or under capacity. Table C.3, Street Segment Level of Service Threshold Descriptions, is a description of the various street segment LOS thresholds.

II.5.4.1.5 Intersection LOS Standards and Threshold

The analysis of existing and projected peak hour intersection performance was conducted using the methodology documented in the *1994 Highway Capacity Manual (Transportation Research Board Special Report 209).* LOS D or better indicates acceptable operating conditions for

signalized intersections during AM and/or PM peak hour conditions. Those intersections found to have LOS E or F under an analysis of future conditions are considered to have significant impacts and will require mitigation.

II.5.4.1.5.1 Signalized Intersection Analysis

The analysis considers signalized intersections during the AM and PM peak hours by determining the average delay per vehicle entering the intersection. The delay was determined using a computer program, which utilizes the methodology found in Chapter 9 of the 1997 Highway Capacity Manual (HCM). The delay values (seconds) were qualified by giving a Level of Service (LOS) or "Grade" to the corresponding delay value for the intersection as a whole. LOS for signalized intersections vary from A (free flow, little delay) to F (forced flow, significant delays). Table C.4 is a description of the various intersection LOS thresholds.

Table C.4
Intersection LOS Threshold Descriptions

LOS	Description
A	Occurs when progression is extremely favorable and most vehicles arrive during the green phase. Most vehicles do not stop at all. Short cycle lengths may also contribute to low delay.
B	Generally occurs with good progression and/or short cycle lengths. More vehicles stop than for LOS A, causing higher levels of average delay.
C	Generally results when there is fair progression and/or longer cycle lengths. Individual cycle failures may begin to appear in this level. The number of vehicles stopping is significant at this level, although many still pass through the intersection without stopping.
D	Generally results in noticeable congestion. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high volume-to-capacity ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.
E	Considered to be the limit of acceptable delay. These high delay values generally indicate poor progression, long cycle lengths, and high volume-to-capacity ratios. Individual cycle failures are frequent occurrences.
F	Considered to be unacceptable to most drivers. This condition often occurs with over saturation i.e. when arrival flow rates exceed the capacity of the intersection. It may also occur at high volume-to-capacity ratios below 1.00 with many individual cycle failures. Poor progression and long cycle lengths may also be major contributing causes to such delay levels.

SOURCE: Highway Capacity Manual, 1994.

II.5.4.1.5.2 Unsignalized Intersection Analysis

The unsignalized intersections were analyzed by determining the delay and Levels of Service based on Chapter 10 of the 1997 HCM. Different methodologies are used to assess two-way stop-controlled intersections and all-way stop-controlled intersections. The LL&G Traffic Analysis contains a detailed explanation of the methodology as well as the unsignalized intersection calculation sheets.

II.5.4.1.6 Chula Vista Traffic Monitoring Program (TMP)

The TMP stipulates that the existing level of service on arterial segments in Chula Vista be maintained at LOS C or better, with the exception that LOS D is acceptable on signalized arterial segments for two hours per day maximum. The Public Works Department of the City of Chula Vista evaluates LOS for arterial roadway segments utilizing the HCM methodology, Chapter 11, based on average travel speeds to adhere to the Growth Management traffic threshold standards. The adopted Growth Management Ordinance mandates the project's participation in the traffic section as it relates to the City's annual review of network performance. All major circulation element facilities within the City of Chula Vista are subject

to review. Those facilities where traffic volumes have increased by at least 10% since the last review or have experienced a significant change in conditions or are at the upper fringes of LOS C approaching LOS D are included in the annual traffic study, which is reviewed for conformance by the Growth Management Oversight Committee (GMOC). The City of Chula Vista requires the application of these guidelines to the future development of the Otay Ranch Village 11 SPA Project.

Utilization of the roadway and intersection performance standards presented in this chapter and the required adherence to the Growth Management traffic threshold standards will result in full conformance with the requirements of the City of Chula Vista.

II.5.4.1.7 Service Analysis

The Public Works Department of the City of Chula Vista is responsible for ensuring that traffic improvements are provided to maintain a safe and efficient street system within the City. Through project review, City staff ensures the timely provision of adequate local circulation system capacity in response to planned development while maintaining acceptable LOS. To accomplish their review the Public Works Department has adopted guidelines for Traffic Impact Studies (January, 2001). These guidelines ensure uniformity in the preparation of traffic studies. Further, the guidelines assist in maintaining acceptable standards for planned new roadway segments and signalized intersections at the build out of the City's General Plan and Circulation Element. The Circulation Element of the General Plan serves as the overall facility master plan.

In conformance with requirements of the Congestion Management Program (CMP), an analysis of CMP freeways and arterials is required for any project that generates 2,400 daily, or 200 peak hour trips (As detailed in the 1991 Congestion Management Program). A *Traffic Impact Analysis for Village 11*, dated March 19, 2001, has been prepared by Linscott, Law and Greenspan (LL&G). This report addresses both existing and planned circulation system conditions, details necessary improvements and outlines the incremental circulation improvements based upon planned project phasing. Further, the Traffic Impact Analysis also includes an evaluation of impacts that are considered significant as a result of project development.

SANDAG Traffic Modeling

The basis of the traffic analysis is the 2020 City/County Forecast Traffic Model which is produced by the San Diego Association of Governments (SANDAG). LL&G worked with the City of Chula Vista and SANDAG to input the proper land use and network designations into the model for the following study years:

- Year 2005 (without SR-125)
- Year 2005 (with SR-125)
- Year 2010
- Year 2015
- Year 2020
- Build-out without Alta Road
- Build-out with Alta Road

The Traffic Impact Analysis report contains the tables showing the land uses, which were coded into the traffic model for both the adopted and proposed project scenarios for all projects in the eastern territories of Chula Vista and the surrounding area. The City of Chula Vista determined the likely network system that would be constructed by each study year and SANDAG coded them into the model.

After the proper land use intensities and network configurations were inputted into the model for each study year scenario, the model was run. The SANDAG model outputs Average Daily Traffic volumes (ADTs) on all Circulation Element street segments.

An iterative process was conducted in which SANDAG would produce model runs for each study scenario; the project team would review the output and suggest revisions to improve output accuracy. After several iterations the output was deemed acceptable and ready for analysis.

GMOC Analysis

The Chula Vista TMP assesses the operating performance of the City's arterial street system for compliance with the Threshold Standards of the GMOC. The threshold standards specify that a Level of Service (LOS) of C or better, as measured by average travel speeds on the arterial, shall be maintained with an exception that during peak hours LOS D can occur for no more than any two hours of the day.

A near-term analysis of the East H Street, Otay Lakes Road and Telegraph Canyon Road arterials was conducted based on the City of Chula Vista's GMOC Traffic Monitoring Program (TMP) methodology. Only these three arterials were analyzed since these arterials are the only street segments calculated to operate at LOS D or worse.

II.5.4.1.8 Project Processing Requirements

SPA Plan/PFFP

1. Identify onsite and offsite impacts and improvements by phase of development.
2. Provide cost estimates for all improvements.

II.5.4.1.9 Existing Conditions

This section summarizes the operation of the existing transportation network in the Otay Ranch Village 11 Project Study Area for the key freeway segments, street segments, and intersections.

Freeway Segments

The LL&G Traffic Impact Analysis Report included the existing operations on Interstate 805. According to the report, the two segments that were analyzed are calculated to operate at LOS E or F under existing conditions. These two segments of I-805 are Bonita Road to East H Street (LOS F) and East H Street to Telegraph Canyon Road (LOS E).

Street Segments

According to the LL&G report, all key street segments are calculated to operate at LOS C or better under existing conditions except East H Street from I-805 to Hidden Vista Drive which operates at LOS F and Telegraph Canyon Road from I-805 to Oleander at LOS D.

Existing and Planned City Street System

The following provides a brief description of the existing and planned street system in the vicinity of the Village 11 project area. This area roughly encompasses the Otay Ranch and adjacent areas between I-805 to the west (see Exhibit 5). Lower Otay Reservoir to the east, H Street to the north and Otay Valley Road to the south.

Interstate 805: I-805 is a north-south freeway, which originates in South County and terminates at its connection with the I-5 Freeway in Sorrento Valley. Local interchanges in

the project vicinity are at Olympic Parkway, Telegraph Canyon Road, and East H Street. I-805 is generally an eight-lane freeway between I-805 and SR 54 with auxiliary lanes present between some interchanges.

East H Street: East H Street is classified as a Six-Lane Prime Arterial from 1-805 to Otay Lakes Road, and as a Four-Lane Major east of Otay Lakes Road. Six lanes of divided travel exist today, narrowing to four lanes of divided travel east of Otay Lakes Road.

Olympic Parkway: Olympic Parkway is classified as a Six-Lane Prime Arterial from I-805 to Hunte Parkway, and as a Four-Lane Major east of Hunte Parkway. Olympic Parkway currently terminates at Brandywine Avenue, just east of I-805 and is a Four-Lane Major Street with bike lanes on both sides from I-805 to Oleander Avenue.

Telegraph Canyon Road/Otay Lakes Road: Telegraph Canyon Road/Otay Lakes Road is classified as a Six-Lane Major west of Paseo del Rey, and as a Six-Lane Prime Arterial east of Paseo del Rey. It is generally a six-lane facility that transitions into a Two-Lane Collector to the east of Hunte Parkway. Bike lanes exist on both sides of the road and bus stops are located intermittently.

Paseo Ranchero: Paseo Ranchero is classified as a Class I Collector and currently extends from Rancho del Rey Parkway to Telegraph Canyon Road. Currently, the section from Telegraph Canyon Road to East Palomar Street is a Six-Lane Prime Arterial. Four lanes of travel are provided in the remaining section of Paseo Ranchero. Bike lanes exist today on both sides of the road with no curbside parking.

Otay Lakes Road: Otay Lakes Road is classified as a Six-Lane Prime Arterial. Otay Lakes Road is a Four-Lane Major arterial between Bonita Road and Telegraph Canyon Road, at which point it turns to the east. East of La Media Road, Otay Lakes Road transitions into a Six-lane Prime Arterial, and eventually into a Class 2 Collector (two lanes) east of Hunte Parkway. Bike lanes exist on both sides of the road.

Corral Canyon Road/Rutgers Avenue: Corral Canyon Road is classified as a a Class II Collector within City of Chula Vista. Corral Canyon Road becomes Rutgers Avenue, also a Class II Collector, south of East H Street. Four lanes of travel are provided on the portion south of East H Street to Gotham Street. Bike lanes exist on both Corral Canyon Road/Rutgers Avenue.

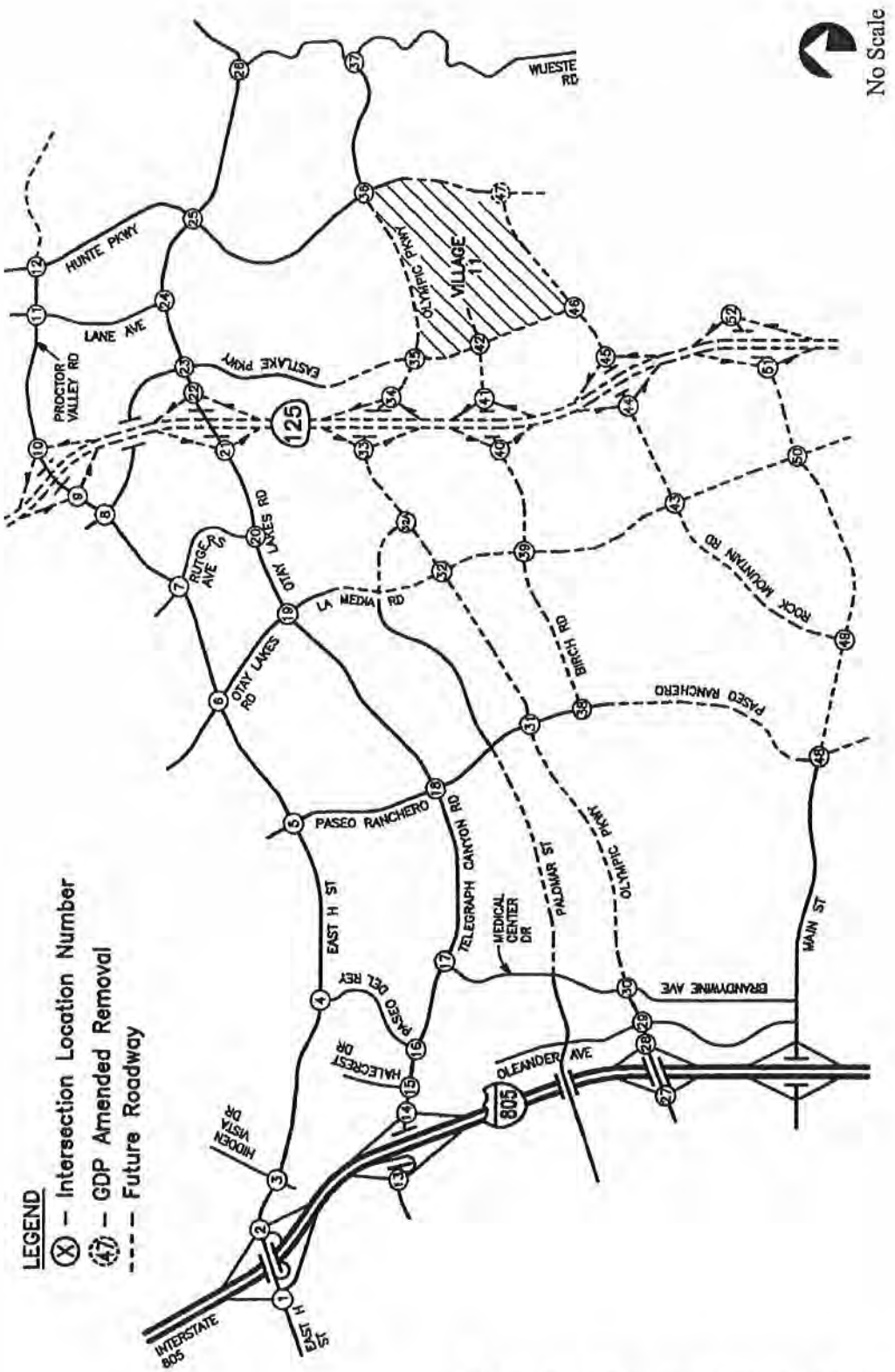
Eastlake Parkway: Eastlake Parkway is classified as a Four-Lane Major Street and as a Six-Lane Prime Arterial south of the SDG&E easement in Eastlake Greens. Currently, it provides four lanes (two lanes in each direction). Bike lanes exist on either side of the road and curbside parking is prohibited

Hunte Parkway: Hunte Parkway is classified as a Four-Lane Prime Arterial from Otay Lakes Road to Olympic Parkway. From Olympic Parkway to SR-125, Hunte Parkway is classified as a Six-Lane Prime Arterial. Currently, it extends south of Otay Lakes Road as a Four-Lane Major Street arterial. Bike lanes exist on either side of the road and curbside parking is prohibited.

State Route 125(SR-125): SR-125 is proposed to be completed between SR-54 and SR-905 initially as a four-lane toll way. It may be constructed by 2004, but the current status is unclear.

Alta Road: Alta Road may be constructed as a Six-Lane Prime Arterial between Hunte Parkway and SR-905. It may be deleted from the City of Chula Vista's Circulation Element at some time in the future.

Wueste Road: Wueste Road is classified as a Class III Collector. It is currently a narrow, winding two-lane road extending between Otay Lakes Road and the south city limits.



Existing and Proposed Streets and Intersections.
Exhibit 5

Peak Hour Intersections

The LL&G report analyzed the existing AM and PM peak hour operations of 20 key signalized intersections. These signalized intersections are calculated to currently operate at LOS D or better except the following:

- East H Street/I-805 Southbound Ramps (LOS F in the PM peak hour)
- Telegraph Canyon Road/I-805 Northbound Ramps (LOS E in the AM and PM peak hours)
- Olympic Parkway/I-805 Southbound Ramps (LOS E in the PM peak hour)

The LL&G report also analyzed the existing AM and PM peak hour operations of 7 key unsignalized intersections. The minor street left-turn movements at the 7 unsignalized intersections are calculated to operate at LOS C or better.

Peak hour intersection turning movement volumes were conducted by LL&G in April 2000 at 27 of the following 52 intersections. The 27 intersections exist today while the remaining 25 will be built in the future. The numbering of the intersections corresponds to the overall 52 intersections, which were analyzed, many of which do not exist today, and are illustrated on Exhibit 5.

1. East "H" Street/I-805 Southbound Ramps
2. East "H" Street/I-805 Northbound Ramps
3. East "H" Street/Hidden Vista Drive
4. East "H" Street/Paseo Del Rey
5. East "H" Street/Paseo Ranchero
6. East "H" Street/Otay Lakes Road
7. East "H" Street/Rutgers Avenue
8. East "H" Street/Eastlake Drive
9. East "H" Street/SR-125 SB Ramps **(Does not Exist)**
10. Proctor Valley Road/SR-125 NB Ramps **(Does not Exist)**
11. Proctor Valley Road (East "H" St.)/Lane Avenue
12. Proctor Valley Road (East "H" St.)/Hunte Parkway
13. Telegraph Canyon Road/I-805 Southbound Ramps
14. Telegraph Canyon Road/I-805 Northbound Ramps
15. Telegraph Canyon Road/Halecrest Drive
16. Telegraph Canyon Road/Paseo Del Rey
17. Telegraph Canyon Road/Medical Center Drive
18. Telegraph Canyon Road/Paseo Ranchero
19. Telegraph Canyon Road/La Media Road
20. Otay Lakes Road/Rutgers Avenue
21. Otay Lakes Road/SR-125 SB Ramps **(Does not Exist)**
22. Otay Lakes Road/SR-125 NB Ramps **(Does not Exist)**
23. Otay Lakes Road/Eastlake Parkway
24. Otay Lakes Road/Lane Avenue
25. Otay Lakes Road/Hunte Parkway
26. Otay Lakes Road/Wueste Road
27. Olympic Parkway/I-805 Southbound Ramps
28. Olympic Parkway/I-805 Northbound Ramp
29. Olympic Parkway/Oleander Avenue
30. Olympic Parkway/Brandywine Avenue/Medical Center Drive
31. Olympic Parkway/Paseo Ranchero **(Does not Exist)**
32. Olympic Parkway/La Media Road **(Does not Exist)**
33. Olympic Parkway/SR-125 SB Ramps **(Does not Exist)**
34. Olympic Parkway/SR-125 NB Ramps **(Does not Exist)**
35. Olympic Parkway/EastLake Parkway **(Does not Exist)**
36. Olympic Parkway/Hunte Parkway **(Does not Exist)**
37. Olympic Parkway/Wueste Road
38. Birch Road/Paseo Ranchero **(Does not Exist)**
39. Birch Road/La Media Road **(Does not Exist)**
40. Birch Road/SR-125 SB Ramps **(Does not Exist)**

41. Birch Road/SR-125 NB Ramps **(Does not Exist)**
42. Birch Road/EastLake Drive **(Does not Exist)**
43. Rock Mountain Road/La Media Road **(Does not Exist)**
44. Rock Mountain Road/SR-125 SB Ramps **(Does not Exist)**
45. Rock Mountain Road/SR-125 NB Ramps **(Does not Exist)**
46. Rock Mountain Road/EastLake Parkway **(Does not Exist)**
47. Rock Mountain Road/Hunte Parkway **(Does not Exist)**
48. Main Street/Pasco Ranchero **(Does not Exist)**
49. Main Street/Rock Mountain Road **(Does not Exist)**
50. Main Street/La Media Road **(Does not Exist)**
51. Main Street/ SR-125 SB Ramps **(Does not Exist)**
52. Main Street/ SR-125 NB Ramps **(Does not Exist)**

II.5.4.1.10 Transit

In order to reduce the public's dependence upon the automobile, transit and land use patterns should work together. The easy access to transit facilities in correlation with the service offered can make transit a viable travel mode alternative to the automobile, thus reducing traffic congestion. Currently, two percent of trips are conducted on public transit in the region. Efforts should be made to increase this travel mode by making transit accessible and convenient. Additionally, providing transit facilities will meet the City's CO2 Reduction Plan which mentions transit as one of the action measures to reducing CO2 emissions along with enhanced pedestrian connections to transit, increased housing density near transit, and site design with transit orientation.

Transit Policies

The following principles should be followed in determining the location of transit stops along planned transit routes in the community and in designing the pedestrian system:

1. Where there are numerous major pedestrian generators, access to stops for transit vehicles moving in both directions would be facilitated by locating transit stops near striped intersections.
2. Transit stops should be located and walkways designed to provide access as directly as possible without impacting residential privacy.
3. At intersection points of two or more transit routes, stops should be located to minimize walking distance between transfer stops.
4. Locating bus turnouts at the far side of intersections in order to permit right-turning vehicles to continue movement can mitigate transit vehicle conflicts with automobile traffic.
5. Transit stops should be provided with adequate walkway lighting and designed shelters.
6. Walkway ramps should be provided at transit stops to ensure accessibility to the handicapped.

Service Concepts

Green Car: Local circulators using mini to mid-size buses. Green Car would act as a collector and provide feeder access to Blue Car and/or Red Car concepts. Bus stop facilities would be Low to Medium level. Service provided on residential streets and major streets.

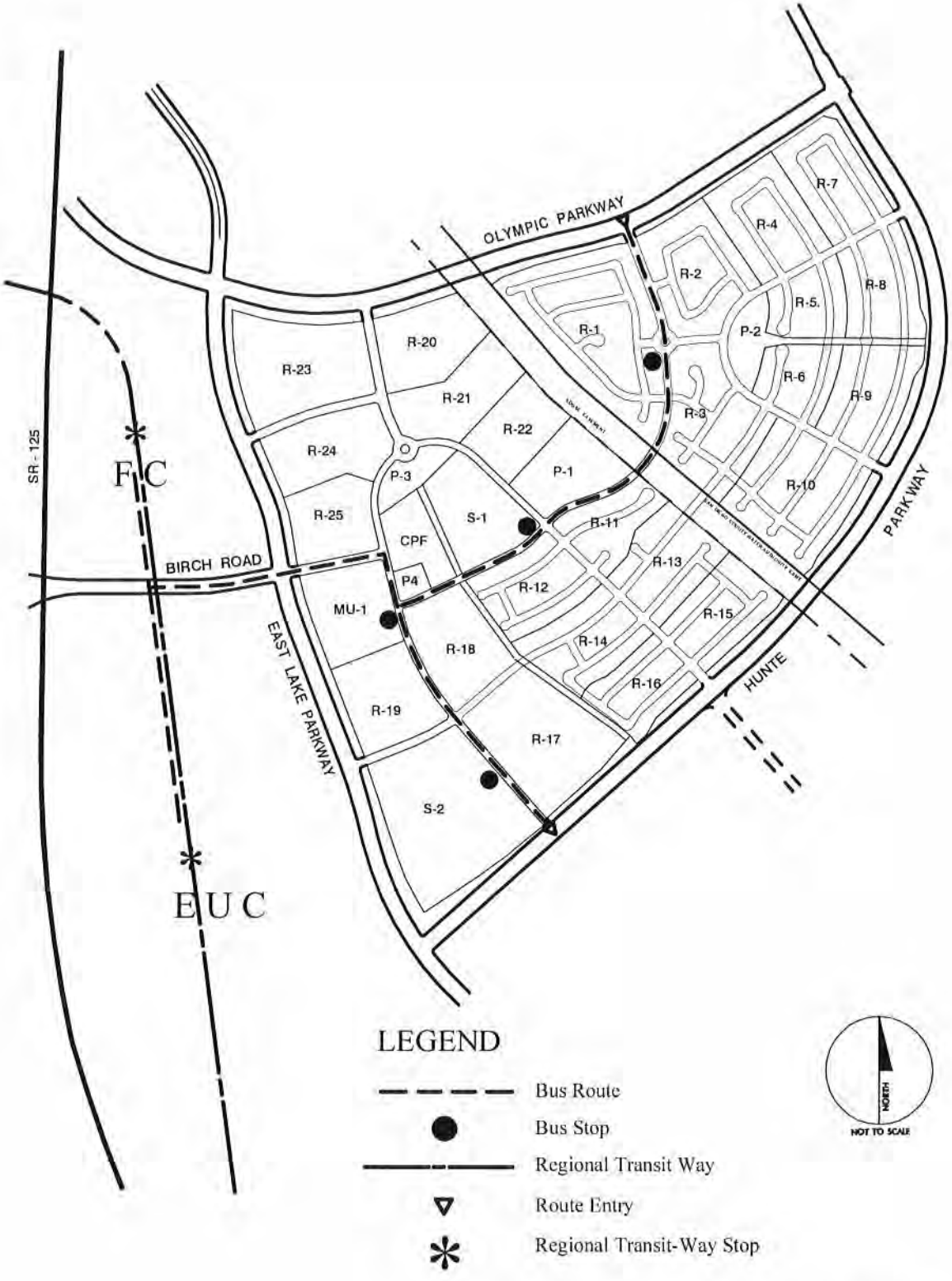


Exhibit 6
Public Transportation Plan

Blue Car: Provides short distance trips (1-5 miles) with frequent stops. This service provides basic mobility and equals the current Chula Vista Transit service. Bus stop facilities at a Medium to High level. Service provided on major streets and arterials.

For information, the Red Car concept describes the future Light Rail Transportation service planned for the Otay Ranch area.

Bus Stop Facilities and Costs

The various bus stop facility levels are defined below:

Low: Bus stop sign/pole
Med: Bus stop sign/pole/bench
Med-High: Bus stop sign/pole/bench/shelter
High: Bus stop sign/pole/bench/shelter/turnout

All bus stops shall meet or exceed ADA bus stop accessibility standards.

Basic Bus Stop Costs		Improved Bus Stop
Pole	$100	$100
Sign	$100	$100
Bench	$300	$300
Trash Recp.	$150	$150
Pad (10'x25')	$2,500	$2,500
Shelter	$0	$5,500
Turnout	$0	$15,000
Total	$3,150	$23,650

Bus Turnout Criteria

Bus turnouts shall be considered if one or more of the following factors are present:

a) Location convenient to park & ride facilities, intermoda transfer facilities, and/or transfer facilities between bus services.
b) Location serves major pedestrian traffic generators (i.e. village centers, shopping malls, schools, transit centers, hospitals etc.).
c) Transit route dwell time exceeds 30 seconds.
d) Posted traffic speed limit is greater than 40 mph.
e) Bus volumes are 5 or more per peak hour.
f) Passenger volumes exceed 20 boardings per hour.
g) Traffic in the curb lane exceeds 250 vehicles during peak hours.
h) History of traffic and/or pedestrian accidents at the stop location.
i) Sight distance prevents traffic from stopping safely behind a stopped bus.

Bus turnouts shall be designed to meet the regional standard described in the Metropolitan Transit Development Board's Designing For Transit Manual, and meet all applicable American With Disabilities Act (ADA) accessibility requirements.

Bus turnouts may be placed on the far side or near side of an intersection, or at mid-block locations. Far side placement at intersections is preferred in most cases to avoid conflicts with right turn movements and obstruction of views of traffic for pedestrians and autos.

II.5.4.1.10.1 Pedestrian Trails and Bridges

The pedestrian trails program is described in Section II.5.4.6, Parks, Trails and Open Space, of this document. The Trails Plan is depicted in Exhibit 8. The street cross-sections in the SPA Plan, Section II.2.3, illustrate the regional trails, village trails and pathways that are adjacent to the streets as well as the off-street paseos and trails. The Village 11 Design Plan and the Village 11 SPA Parks, Recreation, Open Space, and Trails Master Plan provide additional detailed discussion of the Village 11 trail system.

The GDP provides for a Village Greenway to be located through Otay Ranch, specifically through Village 11 to connect the EUC and Salt Creek. In Village 11, the Greenway will be located along the southern boundary adjacent to the junior high school and residential neighborhoods. The Village Pathway will connect the Village 11 core to the Greenway.

The Otay Ranch Overall Village Design Plan indicates that pedestrian bridges may be used in special circumstances, such as the Village Pathway, to provide crossings over arterial streets. The Village 11 plan proposes two Pedestrian Bridge crossings. One bridge is proposed to cross EastLake Parkway from the Eastern Urban Center (EUC) at Hunte Parkway. The other bridge is proposed to cross Hunte Parkway providing access to the Salt Creek Open Space Preserve and University site.

II.5.4.1.11 Trip Generation and Phasing

II.5.4.1.11.1 Project Trip Generation

The following is a description of the proposed and adopted project trip generation calculations.

Proposed Project

SANDAG trip generation rates were utilized to determine the amount of traffic the project would generate. Table C.5 shows the project trip generation for the Proposed Village 11 project. The project trip generation for the Proposed Village 11 is 30,060 ADT. Of this total amount 8,930 ADT are generated by non-residential uses.

TABLE C.5
Village 11[6] Total Trips
Years 2010, 2015, 2020 and Buildout

Land Use	ADT Rate	Size	ADT Volume
Single Family	10/DU	1,005 DU	10,050
Multi Family	8/DU	1,385 DU	11,080
Residential Total			**21,130**
Elementary School	60/AC	11 AC	660
Middle School	40/AC	25.6 AC	1020
Commercial	700/AC	10 AC	7,000
Church	30/AC	5.5 AC	170
Park	5/AC	16.7 AC	80
Non-Residential Total			**8,930**
TOTAL			**30,060**

SOURCE: Traffic Impact Analysis, Otay Ranch Village 11, Chula Vista, CA dated July 5, 2001.

[6] Traffic Impact Analysis Otay Ranch Village 11 assumptions.

A detailed transportation phasing analysis for the project was conducted by LL&G as part of the project traffic analysis. The report developed a set of recommended transportation system improvements for each phase of the project development. The project proposes three phases. Phase I is expected to be built out by Year 2005 and generate approximately 15,850 trips/day. Phase II and Phase III are both expected to be built out by Year 2010 and generate approximately 14,210 trips/day.

The project is designed in such a fashion as to keep a portion of the traffic internal to the project since schools, commercial uses and recreational uses are planned within the project. Therefore, calculations were conducted to determine how much of the project traffic would remain internal to the project site and therefore not add traffic to the regional street system.

TABLE C.6
Proposed Village 11 Internal Trips
Years 2010, 2015, 2020 and Buildout

Land Use	% of Internal Trips	Internal Trips (ADT)
A. Residential	15%	3,170
B. Non-Residential		
Elementary School	70%	460
Park	80%	60
Commercial	26%	1,800
Church	80%	140
Middle School	70%	710
Total Non-Residential		**3,170**

* See Table C.5 for total trips.

Table C.6 shows the internal trip generation calculations with a base assumption that given the make-up of the non-residential uses, about 15% of the residential uses would remain internal to the site. Subtracting the internal trip generation from the total trip generation yields the external trip generation.

Table C.7 shows the external trip generation and indicates that the project is calculated to generate 23,720 ADT on the surrounding street system at project build-out. Since the project is expected to be completed prior to 2010, this traffic generation was assumed for the year 2010, 2015, 2020 and build-out analysis.

TABLE C.7
Proposed Village 11 External Trips
Years 2010, 2015, 2020 and Buildout

Land Use	% of External Trips	External Trips (ADT)
A. Residential	85%	17,960
B. Non-Residential		
Elementary School	30%	200
Park	20%	20
Commercial	74%	5,200
Church	20%	30
Middle School	30%	310
TOTAL ADT		**23,720**

The trip generation calculations for the adopted land uses were done identically to the proposed project. Table C.8 shows the trip generation for the proposed land uses. Tables C.6 and C.7 show the internal and external trip generation calculations, respectively for the proposed Village 11 project.

Table C.8
Village 11 SPA Trip Generation by Phase and Land Use

Land Use	ADT Rate	Phase I or Build-out Year 2005	Phase II & III or Build-out Year 2010
SFD	10/DU	6,390	3,570
SFA & MF	8/DU	1,580	9,500
Elementary School	60/AC	600	
Middle School	40/AC		1,020
Commercial	700/AC	7,000	
Church	30/AC	210	
Park	5/AC	70	
Subtotal		**15,850**	**14,210**
20% reduction for mixed use		-3,170	
Total		**12,680**	**14,210**

Only a portion of the residential uses (639 single family and 197 multi-family), the commercial, church, park and elementary school are proposed by 2005. The LL&G report indicates that the year 2005 trip project generation is identical for both the proposed and the adopted Village 11 plan. Total daily external trip ends (ADT) is 12,680.

Phasing Reconciliation

The Traffic Impact Analysis for the Village 11 project was analyzed in two phases of five year increments each as follows:

Phase I (Year 2005) ADT: 15,850 EDU: 532

Phase II & III (Year 2010) ADT: 14,210 EDU: 1,723

This phasing differs from the project's construction phasing contained in the SPA plan which is anticipated to proceed in three phases. Table C.9 calculates the EDUs and trips generated by each phase and land use and the cumulative trips for the project. The circulation system addressed and recommended in the Traffic Impact Analysis includes all improvements based on average daily trips (ADT) and the trigger points for needed improvements.

Table C.9
Village 11 SPA Trip Generation by Phase and EDUs

Phase	Buildout Year	Total Trips	Total EDUs	Cumulative EDUs
I	2005	15,850	532	532
II & III	2010	14,184	1,783	2,315
Total		**30,034**	**2,315**	**2,315**

Network Analysis

It was necessary to estimate future traffic volumes for several study years in order to determine if the planned circulation network or system could accommodate these volumes. As previously discussed, the SANDAG 2020 City/County Forecast Traffic Model was used to estimate these volumes. The traffic model outputs freeway and street segment ADTs. These ADTs were utilized directly as outputted by the model. In addition, it was also necessary to estimate peak hour intersection volumes. The LL&G report details the methodology to determine future traffic volumes.

The LL&G report considered the total future forecasted volumes for the following study scenarios with proposed and adopted land uses for all projects, including the proposed Village 11 project:

- Year 2005 without SR-125
- Year 2005 with SR-125
- Year 2010
- Year 2015
- Year 2020
- Buildout without Alta Road
- Buildout with Alta Road

Network Performance Assessment Process

The Traffic Impact Analysis included the traffic model projections for cumulative development projects. The report also identified the number of daily trips for the phasing of developments on key roadway segments in order to perform the analysis of network performance based on daily segment LOS. This performance evaluation was performed for roadway and freeway segments. A review of peak hour intersection operations was also performed which required the application of peak hour factors to average daily traffic volumes to develop peak hour turning movements at each of the key project intersections.

11.5.4.1.11.2 Project Phasing

The phasing shown herein is consistent and conforms to the phasing contained in the Traffic Impact Analysis that was prepared by LL&G. Development of Village 11 project contributes 15,850 daily trips during Phase 1 (2005) and 14,210 daily trips during phase II & III (2005-2010) (LL&G assumed that the build out of Village 11 would occur prior to 2010). This results in a cumulative total trips of 30,060 daily trips loaded onto the circulation network at the build-out of the Village 11 development.

Table C.10
Village 11 Phasing

Phase	Parcels	Number of Units*
I	R-1	164 SF DU
	R-2	46 SF DU
	R-4	55 SF DU
	R-7	70 SF DU
	R-20	78 MF DU
	R-23	119 MF DU
SUBTOTAL		532 DU

Table C.10 Continued Village 11 Phasing		
Phase	**Parcels**	**Number of Units***
II	**R-3**	46 SF DU
	R-5	37 SF DU
	R-6	35 SF DU
	R-8	64 SF DU
	R-9	60 SF DU
	R-10	86 SF DU
	R-21	112 MF DU
	R-22	105 MF DU
	R-24	169 MF DU
	R-25	200 MF DU
	MU	115 MF DU
TOTAL		**1,029 DU**
III	**R-11**	36 SF DU
	R-12	58 SF DU
	R-13	53 SF DU
	R-14	56 SF DU
	R-15	68 SF DU
	R-16	62 SF DU
	R-17	118 MF DU
	R-18	125 MF DU
	R-19	167 MF DU
TOTAL		**743 DU**

* Number of units in designated land use areas. SF = Single Family/MF = Multi Family/DU = Dwelling Units

LL&G performed an analysis to determine the appropriate dwelling unit thresholds for when several roadway improvements are needed. The following future roadway improvements were assessed:

1) Olympic Parkway, SR 125 to Hunte Parkway.
2) EastLake Parkway;
   a) SDG&E Easement to Olympic Parkway.
   b) Birch Road to Hunte Parkway.
   c) Olympic Parkway to Birch Road.
3) Birch Road, La Media Road to EastLake Parkway.
4) Hunte Parkway;
   a) Olympic Parkway to North Project Access.
   b) North Project Access to SDG&E Easement.
   c) SDG&E Easement to EastLake Parkway.
   d) Hunte Parkway to SR 125.

Exhibit 4 shows the Village 11 Phasing Plan. Table C.10 shows the number of dwelling units proposed to be constructed within each phase. This table shows that Phase I consists of 532 units, Phase II 1,029 units and Phase III 743 units.

A review of Exhibit 4 shows that Olympic Parkway between SR125 and Hunte Parkway, EastLake Parkway between Olympic Parkway and the North Village Entry, Hunte Parkway between Olympic Parkway and the North Project Access are needed to serve Phase I of Village 11. These roadways must be constructed prior to issuance of any building permits.

TABLE C.11
AM peak hour outbound volume to EastLake Parkway Calculations

Parcel with access to EastLake Parkway	Percent using EastLake Parkway	AM peak hour outbound volume to EastLake Parkway
A. Phases I & II		
R-23	50%	30
R-20	50%	20
R-24	50%	45
R-21	50%	30
R-22	50%	25
R-25	100%	100
MU-1	100%	95
S-1	50%	35
Subtotal (Phases I & II)		**380**
B. Phase III		
R-19 (167 DU)	100%	85
R-18 (125 DU)	100%	64
R-17 (118 DU)	100%	59
Total (410 DU)		
Subtotal (Phase III – 410 DU)		**208**
GRAND TOTAL		**588**

NOTE: AM outbound peak hour traffic reaches 600 threshold about 410 DU into Phase III.

Access to La Media Road via Birch Road is needed once the no left-turns on EastLake Parkway at Olympic Parkway would exceed the dual left-turn lane capacity of 600. An analysis in the LL&G report was conducted to determine when the left-turns would reach 600.

Table C.11 shows the AM peak hour outbound volumes of the parcels with access to EastLake Parkway. This table shows that Village 11 Phases I and II are calculated to add 380 outbound AM peak hour trips to EastLake Parkway (and then left onto Olympic Parkway). Since parcels R-17, R-18 and R-19 (a total of 410 units) would add an additional 208 AM peak hour outbound trips to EastLake Parkway (making a total of 588 AM peak hour outbound trips on EastLake Parkway), it is calculated that Birch Road between EastLake Parkway and La Media Road and EastLake Parkway between Olympic Parkway and northward to the SDG&E easement would be needed. In other words, these roadways would be needed 410 units into Phase III, a total of 1856 units.

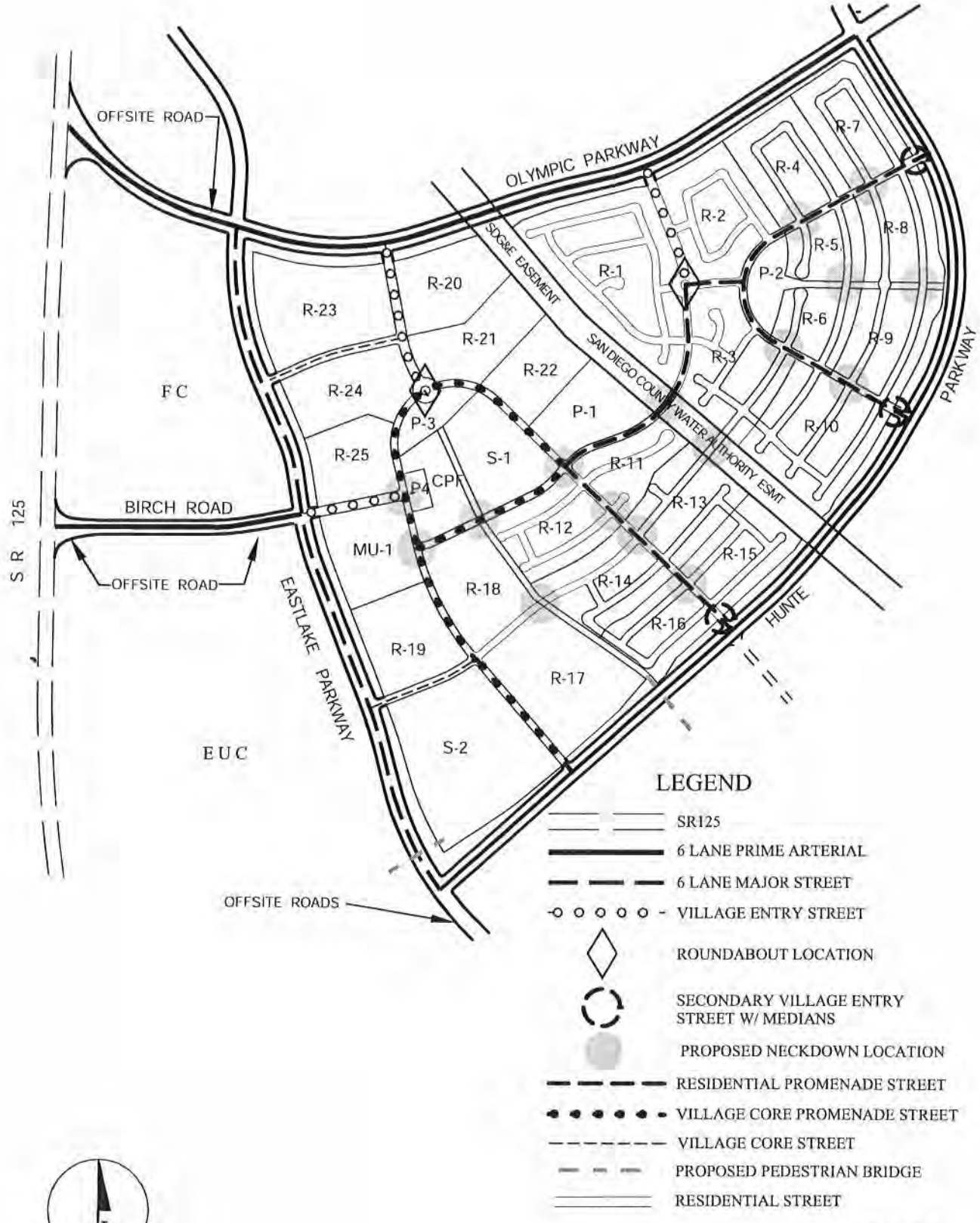


Exhibit 7
Circulation Plan

Based on a review of Exhibit 4, Hunte Parkway between the North Project driveway and the SDG&E easement would be needed to serve Phase II and Hunte Parkway between the SDG&E easement and EastLake Parkway would be needed to serve Phase III. EastLake Parkway between Birch Road and Hunte Parkway is also needed to serve Phase III. Lastly, Hunte Parkway between EastLake Parkway and SR 125 is not needed to serve project traffic assuming Olympic Parkway to SR 125 and Birch Road to La Media Road are both completed. Table C.12 shows the recommended PFFP development thresholds in tabular form. The facilities in Table C.12 are to be constructed the sooner of the 1 cumulative triggers or Table C.13 specific planning area triggers.

II.5.4.1.12 Adequacy Analysis

The adequacy of the traffic system is based upon the Traffic Impact Analysis that considered two cases for the Build-out of phase I of the project. First case considers SR-125 is not built by the year 2005 and the second case considers SR-125 is built by 2005. The analysis of the two cases was necessary in order to provide adequate mitigation for increased traffic levels for the initial phases of the project in the event SR-125 is not completed as scheduled. The approval and subsequent implementation of SR- 125 should allow the City to implement the second case analysis mitigation measures outlined in the Traffic Impact Analysis. Regardless, maintenance of the City's Growth Management Threshold Standards for level of services is required.

Street Segments

Street Segments were analyzed to determine whether a project-related impact is "significant" or "less than significant" with regard to the following three levels of criteria.

1. Project contribution of 800 or more daily trips to the roadway segment (800 or more daily trips is the CMP threshold for determining a project impact).
2. Five percent (5%) or more project traffic contributed to total ADT projected for the given study year.
3. Level of Service (LOS) drops from acceptable LOS A through D to LOS E or F; or LOS drops from LOS E to LOS F as compared to the given year with No Project conditions.

Criterion 1 is applied to all impacted segments to identify segments that meet the CMP threshold for having a project-related impact. If criterion 1 is not met, then criteria 2 and 3 are not applied. Criterion 2 is then applied to the list of segments with more than 800 daily trips contributed (criterion 1) to cumulative ADT to screen for impacts to be carried forward to criterion 3. If criterion 3 is met in addition to Criteria 1 and 2, the impact is considered a significant project-related impact. If an arterial roadway segment meets criteria 1 and 2, but does not meet criterion 3, is considered a less than significant project-related impact.

The City of Chula Vista General Plan Circulation Element recommends LOS C design capacity or better as acceptable for arterial roadway segment ADT volumes. These standards are generally used as long-range planning guidelines to determine the functional classification of roadways and maintain a quality circulation system for Southbay residents under ultimate, build out conditions. It should be recognized that the actual functional capacities of roadway facilities vary by the actual characteristics that exist on each facility under review.

Level of Service D is considered acceptable under Existing and Interim Conditions (Year 2010) for roadway segments within the jurisdiction of the City of Chula Vista, assuming

adjacent intersection performance is acceptable. Due to the fact that the transportation network in the interim time frame is only partially constructed and the geographic distribution of trip activity is limited, there will be a lack of balance in the assignment of-traffic prior to the construction of full General Plan Circulation Element in the southeastern portion of the general plan area. It is for this reason that the analysis recommended LOS D as the interim standard for determining significant impacts.

In addition to conformance with the arterial roadway performance standards detailed above, Village 11 will be required to conform to the threshold standards included in the Traffic section of the adopted Growth Management Ordinance and as may be amended from time to time. Village 11's participation in the City's annual review of network performance is mandated as all major circulation element facilities within-the City of Chula Vista are included in the annual-traffic study prepared by the City Engineering Department and reviewed for conformance by the Growth Management Overate Commission (GMOC). Finally, utilization of the arterial performance standards presented in the Transportation Study and the required adherence to the Growth Management traffic threshold standards will result in full conformance with the requirements of the mitigation measures described in the Village 11 EIR related to Transportation, Circulation, and Access.

Peak-Hour Intersections

Peak Hour Intersections were analyzed to determine whether a project-related impact is "significant" or "less than significant" with regard to the following two levels of criteria.

1. Five percent (5%) or more project traffic contributed to projected given study year total entering volumes.
2. Level of Service (LOS) drops from acceptable LOS A through D to LOS E or F; or LOS drops from LOS E to LOS F as compared to the given study year under No Project conditions.

If an impacted intersection meets Criteria 1 and 2, the impact is considered to be a significant project-related impact. If neither or just one criterion is met, the impact is considered to be less than significant.

Freeway Segment

Freeway Segment Impacts/Mitigation: Impacts to freeway segments for the portions of I-805 in the vicinity of the Village 11 project have been identified and some segments are forecasted to operate at LOS F. Under the regional Congestion Management Plan (CMP) a reduction in freeway segment level of service from LOS E to LOS F is considered a significant impact and requires the development of a Deficiency Plan. SANDAG, Caltrans, APCD, MTDB, and the City of Chula Vista would develop this Plan jointly.

One of the main purposes of the Deficiency Plan is to identify where and when a deficiency is expected to occur before it actually happens. Village 11 is one of many development plans for the South-bay that will contribute to the cumulative daily traffic volume growth, especially in the I-805 corridor. The early development of the Deficiency Plan by the multi-agency team will assist in the identification of project only fair-share contributions for improvements and mitigation.

Subsection C of Municipal Code Section 19.09.100 (Growth Management Ordinance) requires that if the City Manager determines that facilities or improvements within a PFFP are inadequate to accommodate any further development within that area the City Manager

shall immediately report the deficiency to the City Council. If the City Council determines that such events or changed circumstances adversely affect the health, safety or welfare of City, the City may require amendment, modification, suspension, or termination of an approved PFFP.

II.5.4.1.13 Cost & Financing Traffic Improvements

Street Improvements

The following table summarizes the Village 11 major Street improvements as it relates to Village 11 development phasing based on the project Traffic Impact Analysis by LL&G.

TABLE C.12
Village 11 Traffic Improvement Phasing and Costs
Public facilities required to be constructed by Village 11 and cumulative unit triggers[7]

Facility [8]	Description[9]	Roadway Unit Triggers (DU)	Roadway Costs
1	Olympic Parkway, SR 125 to Hunte Pkwy	1	$4,212,000
2a	EastLake Parkway, SDG&E Easement to Olympic Pkwy	1856	$3,336,000
2b	EastLake Parkway, Olympic Parkway to North Village Entry	1	$1,093,000
2c	EastLake Parkway, North Village Entry to Birch Dr.	533	$1,183,000
2d	EastLake Parkway, Birch Road to Hunte Pkwy	1446	$2,639,000
3	Birch Road, La Media Road to EastLake Parkway	1856	$5,244,000
4a	Hunte Parkway, Olympic Parkway to North project Access	1	$912,000
4b	Hunte Pkwy, North Project Access to south of SDG&E easement	1446	$3,010,000
4c	Hunte Pkwy, North of SDG&E easement to EastLake Pkwy	1446	$3,648,000
5	La Media Road: Birch Road to Olympic Parkway	1856	$2,470,000
6	Internal link between R-1 and R-11	533	$1,330,000
7	Otay Lakes Road, E. H street to Telegraph Cyn Rd. (widen to 6 lanes if SR-125 is not constructed prior to 2005)	944	$1,694,000

The facilities in Table C.12 are to be constructed pursuant to Table C.12 cumulative triggers or Table C.13 specific planning area triggers whichever occurs earlier.

[7] Developer shall agree to construct and to secure the facility prior to the Final map that triggers the cumulative DUs as defined in this Table

[8] The Developer will be required to process a Joint Use Agreement with the City of Chula Vista and any Agency for streets that cross existing easements.

[9] All intersections will be constructed with traffic signals.

Table C.13 Village 11 Specific Planning Area Triggers[10]			
Phase	**Neighborhood Area**	**Roadway**	**Roadway required for Access ("A") or Frontage ("F")**
1	R-7	1, 4a	A, F
1	R-4	1, 4a	A, F
1	R-2	1, 4a	A, F
1	P-2	1, 4a	A
1	R-1	1, 4a	A, F
1	R-20	1, 2b	A, F
1	R-23	1, 2b	A, F
2	R-24	1, 2b, 2c, 6	A, F
2	R-25	1, 2b, 2c, 6	A, F
2	R-21	1, 2b, 2c, 6	A
2	R-22	1, 2b, 2c, 6	A
1	P-1	1, 2b, 2c, 6	A
2	P-3	1, 2b, 2c, 6	A
2	S-1	1, 2b, 2c, 6	A
2	CPF	1, 2b, 2c, 6	A
2	P-4	1, 2b, 2c, 6	A
2	MU-1	1, 2b, 2c, 2d, 6	A, F
2	R-5	1, 4a, 4b, 6	A
2	R-8	1, 4a, 4b, 6	A, F
2	R-6	1, 4a, 4b, 6	A
2	R-9	1, 4a, 4b, 6	A, F
2	R-10	1, 4a, 4b, 6	A, F
2	R-3	1, 4a, 4b, 6	A
3	R-11	1, 2b, 2c, 2d, 4a, 4b, 4c, 6	A
3	R-13	1, 2b, 2c, 2d, 4a, 4b, 4c, 6	A
3	R-15	1, 2b, 2c, 2d, 4a, 4b, 4c, 6	A, F
3	R-16	1, 2b, 2c, 2d, 4a, 4b, 4c, 6	A, F
3	R-14	1, 2b, 2c, 2d, 4a, 4b, 4c, 6	A
3	R-12	1, 2b, 2c, 2d, 4a, 4b, 4c, 6	A
3	R-18	1, 2b, 2c, 2d, 4a, 4b, 4c, 6	A
3	R-19	1, 2b, 2c, 2d, 4a, 4b, 4c, 6	A, F
3	S-2	1, 2b, 2c, 2d, 4a, 4b, 4c, 6	A, F
3	R-17	1, 2b, 2c, 2d, 4a, 4b, 4c, 6	A, F

Source: City of Chula Vista

Transportation Development Impact Fee (TDIF):

On December 7, 1993, the Chula Vista City Council adopted Ordinance 2580 amending Ordinance 2251 which previously commenced collection of TDIF to be used to construct

[10] The Developer shall agree to construct and to secure the facility prior to the first final map in this planning area.

circulation element transportation facilities to accommodate increased traffic generated by new development within the City's eastern territories. On November 15, 1999, the Ordinance was amended to permit annual increases of the fee due to annual inflation (July 1 to July 1). The current TDIF, as of the date of this PFFP and reviewed by the City Council is $6,065 per EDU.

Also effective January 1, 1995 is an interim pre-SR-125 development impact fee in the amount of $820 per equivalent dwelling unit to implement the pre-SR-125 strategy as defined in the study entitled "Interim State Route 125 Facility Feasibility Study" dated May 1993.

The Village 11 project is within the boundaries of the TDIF program and, as such, the project is subject to the payment of the fees at the rates in effect at the time building permits are issued. However, the improvement identified on Table will be required to be constructed according to the approved phasing plan. In this case, the DIF ordinance allows for the issuance of credit in lieu of fees when an eligible facility is constructed by the project. If the total eligible construction cost amounts to more than the total required DIF fees as is indicated below, the owner/developer may be given credits toward future building permits outside of the SPA area.

The following EDUs apply to the calculation of impact fees in accordance with Ordinance No's. 2580 for Transportation and 2579 for Interim Pre-SR-125 facilities.

Table C.14
Village 11 Phasing EDU for Transportation and Interim SR-125 Facilities

Land Use	DU's	EDUs by Phase			
		Phase 1	Phase 2	Phase 3	Total EDU
SFR-Detached	1,311	532	328	451	1,311
SFR-Attached	678	0	309	234	543
MFR	315	0	189	0	189
COMMERCIAL	0	0	250	0	250
CPF	0	0	22	0	22
EDUs/Phase	2,304	532	1,098	685	2,315

The TDIF is $6,065 per EDU. Each new single-family detached dwelling shall be considered one EDU for the purposes of this fee. A single family attached dwelling shall be 0.8 EDUs. A unit within a multi-family dwelling shall be considered 0.6 EDUs. Commercial/Office shall be charged at the rate of 25.0 EDUs per gross acre of land.

The Interim Pre-SR-125 Development Impact Fee beginning January 1, 1995 is $820 per EDU. The same EDU rates apply to the Interim Pre-SR-125 Development Impact Fee as for the TDIF.

The following tables summarize the Village 11 TDIF and Interim SR-125 DIF based on the project development phasing per the Traffic Impact Analysis prepared by LL&G.

Table C.15
Village 11 TDIF Fees

Development Phase	EDUs	Transportation Fee @ $6,065 /EDU
1	532	$3,226,580
2	1,098	$6,659,370
3	685	$4,154,525
	2,315	$14,040,453

Table C.16 Village 11 Interim SR-125 DIF Fees		
Development Phase	**EDUs**	**Interim SR-125 Fee @ $820/EDU**
1	532	$436,240
2	1,098	$900,360
3	685	$561,700
Total	2,315	$1,898,300

Traffic Signal Fee:
Future development within Village 11 will be required to pay Traffic Signal Fees in accordance with Chula Vista Council Policy No. 475-01. The fee is calculated at $13.00 per vehicle trip generated per day for various land use categories.

Table C.17 Village 11 Traffic Signal Fees		
Development Phase	**Trips**	**Traffic Signal Fee @ $13/Trip**
1	15,850	$206,050
2 & 3	14,210	$184,730
Total		$390,780

Non-DIF Streets and Signals:
Village 11 contains residential streets and signals that by city policy, are not eligible for DIF credit. These streets and signals will be funded by the development.

II.5.4.1.14 Threshold Compliance and Requirements

1. Threshold compliance will continue to be monitored through the annual intersection-monitoring program.
2. Village 11 shall be conditioned to pay TDIF Fees and Interim PreSR-125 DIF Fees at the rate in effect at the time building permits are issued.
3. The measures outlined in Tables C.13 through C.14 and Table C.19 and Table C.20 are required to mitigate cumulative and direct project impacts.
4. I-805 between Bonita Road and Telegraph Canyon Road additional lanes would be required to maintain acceptable LOS on I-805. Continued freeway planning efforts and deficiency planning by Caltrans and SANDAG will determine mitigation strategies for the regional freeway system.
5. Prior to approval of the first final map, which triggers the installation of the related street improvements, developer shall enter into an agreement to construct and secure a fully activated traffic signal, as determined by the City Engineer, including interconnect wiring at the following intersections (see Exhibit 7 for intersection location):
   - Olympic Parkway/Driveway "A"
   - Olympic Parkway/Driveway "E"
   - EastLake Parkway/Driveway "B"
   - EastLake Parkway/Birch Road
   - EastLake Parkway/Driveway "F"
   - Hunte Parkway/Driveway "C"
   - Hunte Parkway/Driveway "D"
   - Hunte Parkway/Driveway "H"
   - Hunte Parkway/Driveway "I"
6. The Developer of Village 11 shall fully design the aforementioned traffic signals as part of the improvement plans for the related street. Developer shall install underground improvements, standard and luminaries in conjunction with the construction of the related

street improvements. In addition, developer shall install mast arms, signal heads, and associated equipment with traffic signal warrants are met as determined by the City Engineer. Single left-turn ingress and egress lanes will be provided.

7. The Developer shall submit the elementary school and middle school site plans to be reviewed by the City of Chula Vista and/or a registered traffic engineer and revised as necessary to ensure the site can accommodate the forecasted traffic.
8. The Developer shall prepare a "Suggest Route to School Plan" for the elementary school as outlined in the 1994 Caltrans Traffic Manual.
9. Prior to approval of the first final map, Developer shall enter into an agreement with the City of Chula Vista, wherein Developer acknowledges and agrees that, prior to the construction of SR-125, the City shall stop issuing new building permits for Village 11 when the City, in its sole direction, determines either:
   a. Building permits for a total 9429 dwelling units have been issued for projects east of I-805 (the start date for counting the 9429 dwelling units is January 1, 2000); or,
   b. An alternative measure is selected by the City in accordance with the City of Chula Vista Growth Management Ordinance.

   Developer shall also acknowledge and agree that notwithstanding the foregoing thresholds, the City may issue building permits if the City decides, in its sole discretion, that any of the following has occurred: 1) traffic studies demonstrate, to the satisfaction of the City Engineer, that the circulation system has additional capacity without exceeding the GMOC traffic threshold standards; 2) other improvements are constructed which provide additional necessary capacity; or 3) the City selects an alternative method of implementing the GMOC standards. These traffic studies would not require additional environmental review under CEQA; however, any improvements proposed in these traffic studies would be subject to additional environmental reviews as required. The above noted agreement shall run with the entire land contained within the Project.
10. The developer of Village 11 shall provide a horizontal and vertical alignment study of EastLake Parkway from Olympic Parkway to Hunte Parkway and a horizontal and vertical alignment study of Hunte Parkway from Olympic Parkway to EastLake Parkway for City approval prior to TM approval.
11. The Applicant shall provide a pedestrian bridge connecting Village 11 to the Eastern Urban Center (Planning Area 12) crossing (east – west) over Eastlake Parkway just north of Hunte Parkway, as follows:
   a. Prior to approval of the first map for the Project, the Applicant shall fund the preliminary design of said bridge and identify and establish the funding mechanism to be used to fund half of the cost of constructing said pedestrian bridge; and,
   b. Prior to approval of the first map for the Project, Applicant shall provide the preliminary design of said bridge, and shall obtain the approval of the Directors of Public Works and Planning and Building; and,
   c. The timing of the construction of said bridge will be determined by the City, consistent with the requirements of Village Eleven SPA Plan, Public Facilities Financing Plan (PFFP), as may amended from time to time, and development of the Eastern Urban Center in Planning Area 12; and,
   d. The bridge shall be constructed in a location as directed by the Directors of Planning and Building and Public Works.

12. The Applicant shall construct a bridge connecting Village 11 to the University Site (Village Ten) crossing (north – south) over Hunte Parkway between Neighborhoods R-16 and R-17 as depicted on the Parks, Recreation, Open Space and Trails Plan in the Village 11 SPA Plan, as follows:
    a. Prior to approval of the first map for the Project, the Applicant shall fund the preliminary design of said bridge and identify and establish the funding mechanism to be used to fund half of the cost of constructing said pedestrian bridge; and,
    b. Prior to approval of the first map for the Project, Applicant shall provide the preliminary design of said bridge, and shall obtain the approval of the Directors of Public Works and Planning and Building; and,
    c. Applicant shall construct said bridge in conjunction with construction of Facility #4c, Hunte Parkway; and,
    d. The bridge shall be constructed in a location as directed by the Directors of Planning and Building and Public Works.
13. Upon: 1) approval of the final map that triggers the Cumulative DU's, ("Table 'C.12'"); or, 2) approval of the first final map for a specific Planning Area, (Table'C.13'"), whichever occurs earlier, consistent with this PFFP, as may be amended from time to time, the Developer shall construct or enter into an agreement to construct and secure, in accordance with Section 18.16.220 of the Municipal Code, the required street improvements.

TABLE C.18 SIGNIFICANCE OF IMPACTS AT SEGMENTS VILLAGE 11			
IMPACTED SEGMENTS	**INTERSECTIONS ALONG SEGMENT OPERATING @ LOS D OR BETTER?**	**PROJECT RESPONSIBLE FOR XX %**	**IMPACT: NOT SIGNIFICANT, CUMULATIVE OR DIRECT**
YEAR 2005 WITHOUT 125			
"H" STREET			
I-805 to Hidden Vista Dr. (LOS E)	No	Nominal	Cumulative
TELEGRAPH CANYON ROAD			
I-805 to Paseo Del Rey (LOS D)	Yes	-	Not Significant
Paseo Del Rey to Paseo Ranchero (LOS D)	Yes	-	Not Significant
OTAY LAKES ROAD			
North of "H" St. (LOS F)	-	4.5%	Cumulative
"H" St. to Telegraph Canyon Rd. (LOS F)	-	5.8%	Project
OLYMPIC PARKWAY			
I-805 to Oleander Ave. (LOS E)	Yes	-	Not Significant
SR 125 to Eastlake Pkwy. (LOS F)	-	24.4%	Project
Eastlake Pkwy. to Hunte Pkwy. (LOS F)	-	39.3%	Project
EASTLAKE PARKWAY			
N/0 Otay Lakes Rd. (LOS D)	Yes	-	Not Significant
YEAR 2005 WITH 125			
"H"STREET			
I-805 to Hidden Vista Dr. (LOS E)	Yes	-	Not Significant
TELEGRAPH CANYON ROAD			
I-805 to Paseo Del Rey (LOS D)	Yes	-	Not Significant
OTAY LAKES ROAD			
North of "H" St. (LOS D)	Yes	-	Not Significant
"H" St. to Telegraph Canyon Rd. (LOS E)	Yes	-	Not Significant
OLYMPIC PARKWAY			
I-805 to Oleander Ave. (LOS D)	Yes	-	Not Significant
SR 125 to Eastlake Pkwy. (LOS F)	-	13.0%	Project
Eastlake Pkwy. to Hunte Pkwy. (LOS F)	-	24.2%	Project
EASTLAKE PARKWAY			
N/0 Otay Lakes Rd. (LOS E)	Yes	-	Not Significant
YEAR 2010			
"H"STREET			
I-805 to Hidden Vista Dr. (LOS E)	Yes	-	Not Significant
TELEGRAPH CANYON ROAD			
I-805 to Paseo Del Rey (LOS E)	Yes	-	Not Significant
Paseo Del Rey to Paseo Ranchero (LOS D)	Yes	-	Not Significant
OTAY LAKES ROAD			
North of "H" St. (LOS F)	-	-	Cumulative
"H" St. to Telegraph Canyon Rd. (LOS F)	-	2.8%	Cumulative

Source: LL&G

TABLE C.18 SIGNIFICANCE OF IMPACTS AT SEGMENTS VILLAGE 11			
IMPACTED SEGMENTS	**INTERSECTIONS ALONG SEGMENT OPERATING @ LOS D OR BETTER?**	**PROJECT RESPONSIBLE FOR XX %**	**IMPACT: NOT SIGNIFICANT, CUMULATIVE OR DIRECT**
YEAR 2010 (CONTINUED)			
OLYMPIC PARKWAY			
I-805 to Oleander Ave. (LOS E)	Yes	-	Not Significant
Palomar St. to SR 125 (LOS D)	Yes	-	Not Significant
SR 125 to Eastlake Pkwy. (LOS F)	-	16.1%	Cumulative
Eastlake Pkwy. to Hunte Pkwy. (LOS F)	-	27.7%	Cumulative
BIRCH ROAD			
La Media Rd. to SR 125 (LOS E)	Yes	-	Not Significant
PASEO RANCHERO			
South of Main St. (LOS D)	Yes	-	Not Significant
EASTLAKE PARKWAY			
N/0 Otay Lakes Rd. (LOS E)	Yes	-	Not Significant
Olympic Pkwy. to Birch Rd. (LOS D)	Yes	-	Not Significant
YEAR 2015			
"H"STREET			
I-805 to Hidden Vista Dr. (LOS E)	Yes	-	Not Significant
TELEGRAPH CANYON ROAD			
I-805 to Paseo Del Rey (LOS D)	Yes	-	Not Significant
Paseo Del Rey to Paseo Ranchero (LOS D)	Yes	-	Not Significant
OLYMPIC PARKWAY			
I-805 to Oleander Ave. (LOS D)	Yes	-	Not Significant
SR 125 to Eastlake Pkwy. (LOS F)	Yes	16.9%	Cumulative
Eastlake Pkwy. to Hunte Pkwy. (LOS F)	Yes	26.2%	Cumulative
BIRCH ROAD			
La Media Rd. to SR 125 (LOS E)	Yes	-	Not Significant
EASTLAKE PARKWAY			
N/0 Otay Lakes Rd. (LOS E)	Yes	-	Not Significant
Olympic Pkwy. to Birch Rd. (LOS E)	Yes	-	Not Significant
YEAR 2020			
"H"STREET			
I-805 to Hidden Vista Dr. (LOS E)	Yes	-	Not Significant
TELEGRAPH CANYON ROAD			
I-805 to Paseo Del Rey (LOS D)	Yes	-	Not Significant
Paseo Del Rey to Paseo Ranchero (LOS D)	Yes	-	Not Significant
OTAY LAKES ROAD			
SR 125 to Eastlake Pkwy. (LOS D)	Yes	-	Not Significant
OLYMPIC PARKWAY			
I-805 to Oleander Ave. (LOS E)	Yes	-	Not Significant
SR 125 to Eastlake Pkwy. (LOS F)	Yes	16.3%	Cumulative
Eastlake Pkwy. to Hunte Pkwy. (LOS F)	Yes	24.3%	Cumulative

Source: LL&G

TABLE C.18 SIGNIFICANCE OF IMPACTS AT SEGMENTS VILLAGE 11			
IMPACTED SEGMENTS	**INTERSECTIONS ALONG SEGMENT OPERATING @ LOS D OR BETTER?**	**PROJECT RESPONSIBLE FOR XX %**	**IMPACT: NOT SIGNIFICANT, CUMULATIVE OR DIRECT**
YEAR 2020 (CONTINUED)			
EASTLAKE PARKWAY			
N/0 Otay Lakes Rd. (LOS D)	Yes	-	Not Significant
Olympic Pkwy. to Birch Rd. (LOS E)	Yes	-	Not Significant
HUNTE PARKWAY			
SDG&E to SR125 (LOS E)	Yes	-	Not Significant
BUILDOUT WITH ALTA ROAD			
"H"STREET			
I-805 to Hidden Vista Dr. (LOS E)	Yes	-	Not Significant
OTAY LAKES ROAD			
SR 125 to Eastlake Pkwy. (LOS F)	Yes	-	Cumulative
OLYMPIC PARKWAY			
I-805 to Oleander Ave. (LOS D)	Yes	-	Not Significant
SR 125 to Eastlake Pkwy. (LOS F)	Yes	13.3%	Cumulative
Eastlake Pkwy. to Hunte Pkwy. (LOS F)	Yes	24.9%	Cumulative
ROCK MOUNTAIN ROAD			
La Media Rd. to SR 125 (LOS D)	Yes	-	Not Significant
EASTLAKE PARKWAY			
N/0 Otay Lakes Rd. (LOS D)	Yes	-	Not Significant
Olympic Pkwy. to Birch Rd. (LOS D)	Yes	-	Not Significant
BUILDOUT WITHOUT ALTA ROAD			
"H"STREET			
I-805 to Hidden Vista Dr. (LOS E)	Yes	-	Not Significant
OTAY LAKES ROAD			
SR 125 to Eastlake Pkwy. (LOS F)	Yes	-	Cumulative
OLYMPIC PARKWAY			
I-805 to Oleander Ave. (LOS D)	Yes	-	Not Significant
SR 125 to Eastlake Pkwy. (LOS F)	Yes	13.1%	Cumulative
Eastlake Pkwy. to Hunte Pkwy. (LOS F)	Yes	22.1%	Cumulative
ROCK MOUNTAIN ROAD			
La Media Rd. to SR 125 (LOS E)	Yes	-	Not Significant
EASTLAKE PARKWAY			
N/0 Otay Lakes Rd. (LOS D)	Yes	-	Not Significant

Source: LL&G

TABLE C.19 SIGNIFICANT IMPACTS AND MITIGATION MEASURES VILLAGE 11	
SIGNIFICANT IMPACTS	**MITIGATION MEASURES**
A. Direct Impacts 1) Olympic Parkway SR 125 to Hunte	1) Construct to 6-lane Prime Arterial standards.
2) Otay Lakes Road H Street to Telegraph Canyon Road	2) No mitigation needed until development exceeds 944 units. If development exceeds 944 units without SR 125, widen to 6 lanes or construct intersection improvements on Otay Lakes Road, which provides additional capacity to the satisfaction of the City Engineer.
B. Cumulative Impacts 3) Olympic Parkway SR 125 to Eastlake Parkway	3) Amend the General Plan to designate as an 8 lane Prime Arterial. Contribute a fair share towards the construction of the 2 additional lanes.
4) Otay Lakes Road SR 125 to Eastlake Parkway	4) Amend the General Plan to designate as a 7 lane Prime Arterial (additional lane westbound). Contribute a fair share towards the construction of the additional lane.
5) Otay Lakes Road H Street to Telegraph Canyon Road	5) Contribute a fair share towards widening to 6 lanes or towards intersection improvements, which provides additional capacity along Otay Lakes Road to the satisfaction of the City Engineer.
6) Otay Lakes Road Bonita Road to H Street	6) Contribute a fair share towards the widening to 6 lanes or towards an intersection improvement, which provides additional capacity along Otay Lakes Road to the satisfaction of the City Engineer.
7) Several intersections and roadways (Only without SR 125)	7) Prior to approval of the first final map, Developer shall enter into an agreement with the City of Chula Vista, wherein Developer acknowledges and agrees that, prior to the construction of SR-125, the City shall stop issuing new building permits for Village 11 when the City, in its sole direction, determines either: a. Building permits for a total 9429 dwelling units have been issued for projects east of I-805 (the start date for counting the 9429 dwelling units is January 1, 2000); or, b. An alternative measure is selected by the City in accordance with the City of Chula Vista Growth Management Ordinance. Developer shall also acknowledge and agree that notwithstanding the foregoing thresholds, the City may issue building permits if the City decides, in its sole discretion, that any of the following has occurred: 1) traffic studies demonstrate, to the satisfaction of the City Engineer, that the circulation system has additional capacity without exceeding the GMOC traffic threshold standards; 2) other improvements are constructed which provide additional necessary capacity; or 3) the City selects an alternative method of implementing the GMOC standards. These traffic studies would not require additional environmental review under CEQA; however, any
8) Olympic Parkway/Wueste Road	8) Contribute fair share towards future signalization of intersection.

Source: LL&G

II.5.4.2 POLICE

II.5.4.2.1 Threshold Standard

A. Emergency Response: properly equipped and staffed police units shall respond to 84 % of Priority I Emergency calls within 7 minutes and maintain an average response time to all "Priority One" emergency calls of 4.5 minutes or less measured annually.

B. Urgent Response: Properly equipped and staffed police units shall respond to 62 % of Priority II Urgent calls within 7 minutes and maintain an average response time to all Priority II calls of 7 minutes or less measured annually.

II.5.4.2.2 Service Analysis

The City of Chula Vista Police Department provides police services. The purpose of the Threshold Standard is to maintain or improve the current level of police services throughout the City by ensuring that adequate levels of staff, equipment and training are provided. Current Police threshold performance has been analyzed in the "Report on Police Threshold Performance 1990-1999", completed April 13, 2000

Police Facilities are also addressed in *A Master Plan for the Chula Vista Civic Center Solving City Space Needs Through Year 2010,* dated May 8, 1989.

II.5.4.2.3 Project Processing Requirements

SPA Plan/Public Facilities Finance Plans

1. Services reviewed consistent with proposed phasing of the project.
2. Demonstrate conformances with *A Master Plan for the Chula Vista Civic Center,* May 8, 1989.

II.5.4.2.4 Existing Conditions

The Chula Vista Police Department provides law enforcement services to the area encompassing Otay Ranch Village 11 SPA. The Chula Vista Police Department is located at 276 Fourth Avenue in Chula Vista. Currently, CVPD maintains a staff of approximately 209 sworn officers and approximately 92 civilian and support personnel. The Department has been authorized 213 swore officers and 105 civilian staff. The Department is recruiting new officers and has approximately new 31 officers in training. Village 11 SPA is within Police Patrol Beat 24, which is served by at least one patrol car 24 hours per day.

Police Facility Inventory

- Existing Facility: Police Headquarters, 276 4th Avenue.
- Future Facilities: Build New Facilities at a location to be determined.

II.5.4.2.5 Adequacy Analysis

According to the City's Growth Management Coordinator the response times for Priority I and II Calls for Service (CFS) were not met. During the July, 1999, to June, 2000, time

period the Police Department responded to 75.9% of Priority I emergency calls within 7 minutes as opposed to the 84% threshold. The average Priority I call response time was 5:21 minutes compared to the 4:30 minute threshold time. Forty six point four percent (46.4%) of Priority II urgent calls were responded to within 7 minutes compared to the 62% threshold. The average Priority II call response time was 9:37 minutes compared to the 7:00 minute threshold time.

As presented in past GMOC reports, the Police Department has been out of compliance with the Threshold for several years, and along with the GMOC, has been waiting for information from the new Computer Aided Dispatch (CAD) system (installed in 1998) to conduct a review of response time characteristics and the current Police Threshold Standard. This year, the GMOC was presented with an in-depth report prepared by the City's Special Projects Division in concert with the Police Department, titled "Report on Police Threshold Performance 1990-1999", completed April 13, 2000. The report investigates response times and Police Threshold performance based on analysis of CAD system data.

This report presents two key conclusions that explain the non-compliance, along with several recommendations, including a proposal for an adjustment to the Threshold Standard. With regard to response time calculation, the report indicates that part of this non-compliance result from the need to correct for measurement data provided from the original data collection system. When the threshold was set in 1988/89 a rudimentary system was in place to measure dispatch time and some human error inevitably occurred. Today, with the new computer-aided dispatch system (CAD) human error has been effectively eliminated. A comparison of the CAD calculated dispatch time to that recorded in 1988/89 reveals an on average 18 second difference. In addition, the 1988/89 data included "zero" time calls, as well as calls which were hours long because the clock was not properly started or stopped.

In analyzing the historic data, the report indicates that the original Priority I Threshold should have been set at 81% of calls within 7 minutes, with an average response time of 5.5 minutes. The Priority II Threshold should have been set at 57% of calls within 7 minutes with an average response time of 7.5 minutes. The Report recommends that the Police Threshold Standard be adjusted to these rates. It is important to note that even if these adjustments were made, current response time levels would still not be in compliance (i.e. current Priority I call response rate is at 75.9% compared to the proposed, adjusted 81% standard).

The GMOC in its report to the City Council recognized the merit in adjusting the threshold to account for original "errors", however, it was their conclusion that a more thorough evaluation needs to be conducted for the 2000 report that encompasses the possible inclusion of other threshold measures in addition to response time. The GMOC recommended that Council defer action on the adoption of the proposed response time adjustments to the Police Threshold Standard until the next GMOC review cycle, and direct staff to work with the GMOC to consider the adjustments in the context of other factors in measuring the quality of police services within the community. Further, the GMOC made recommendations for continued improvement to priority Calls for Service (CFS) to the City Council. These recommendations included the approval of the Police Department's proposed Advance Hire program and the addition of another police beat in eastern Chula Vista.

In response to the GMOC recommendations, the Police Department is currently studying their current beat structure. This study is evaluating two alternatives. One alternative is the reassignment of beats, which would require additional officers. The other alternative is the

restructuring of the beats into smaller but more numerous in the eastern territories. The results of this study are expected to be included in the next GMOC report scheduled for Spring 2001.

The Otay Ranch Village 11 SPA development will increase the demand for police service in the project area. According to the demand methodology identified in the Otay Ranch GDP, the projected population increase generated by Village 11 will require approximately 9 additional officers (1.38 officers per 1,000 population) plus 9.3 support staff (1.74 support staff for every 1.67 officers) at build out to maintain current levels of police service. Approximately 2,000 sq. ft. of police facilities would be required to house the additional 9 officers.

II.5.4.2.6 Financing Police Facilities

In January 1991, the Chula Vista City Council adopted Ordinance No. 2320 establishing a Development Impact Fee to pay for various public facilities within the City of Chula Vista'. The facilities are required to support future development within the City and the fee schedule has been adopted in accordance with Government Code Section 66000. The fees were updated by adoption of Ordinance No. 2809-B on June 20, 2000. The current fee established by Ordinance is $2,618.00 per equivalent dwelling unit.

The portion of the fee attributable to police services in the existing fee program is $735/EDU.

The Otay Ranch Village 11 SPA is subject to the public facilities DIF program. The project is subject to the payment of the fee rate that is in effect at the time building permits are issued. At the current fee rate, the Otay Ranch Village 11 obligation at build out is $1,742,685.00.

Table D
Otay Ranch Village 11
Public Facilities Fees For Police

Development Phase	EDUs	Police Fee @ $735/EDU
1	532	$391,020.00
2	1,096	$805,560.00
3	743	$546,105.00
Total	**2,371**	**$1,742,685.00**

II.5.4.2.7 Threshold Compliance and Recommendations

The City will continue to monitor police responses to calls for service in both the Priority I Emergency and Priority II Urgent categories and report the results to the GMOC on an annual basis.

Otay Ranch Village 11 will be conditioned to pay Public Facilities Fees at the rate in effect at the time building permits are issued.

The City will continue the redeployment of its Police Officers and Equipment to best match the needs inherent in the growing eastern community.

II.5.4.3 FIRE AND EMERGENCY MEDICAL SERVICES

II.5.4.3.1 Threshold Standard

Emergency response: Properly equipped and staffed fire and medical units shall respond to calls throughout the City within seven (7) minutes in 85 percent (current service to be verified) of the cases (measured annually).

II.5.4.3.2 Service Analysis

The City of Chula Vista Fire Department provides Fire and Emergency Medical Services (EMS). EMS is provided on a contract basis with American Medical Response (AMR). The City also has county wide mutual and automatic aid agreements with surrounding agencies should the need arise for their assistance. The purpose of the Threshold Standard and the monitoring of response times are to maintain and improve the current level of fire protection EMS in the City. Fire/EMS facilities are provided for in the 1997 Fire Station Master Plan, as amended. The Fire Station Master Plan indicates that the number and location of fire stations primarily determine response time. The Fire Station Master Plan evaluates the planning area's fire coverage needs, and recommends a nine (9) station network at build out to maintain compliance with the threshold standard.

II.5.4.3.3 Project Processing Requirements

Developments shall be in accordance with the project guidelines outlined in the Fire Station Master Plan as may be amended from time to time.

In accordance with the Fire Station Master Plan, the City, at its sole discretion, shall determine when a new fire station is required in order to achieve threshold service levels, meet specific project guidelines or maintain general operational needs of the Fire Department.

The requirement to pay for fire station construction and related equipment shall be the sole responsibility of the developer or developers and the City may require said developer or developers to provide a guarantee mechanism to assure the availability of such funding.

SPA Plan/Public Facilities Finance Plans

1. Specific siting of the facility takes place, which conforms with the *Fire Station Master Plan,* August 14, 1997.
2. Equipment needs identified.
3. Methods of financing discussed.
4. Timing of construction is consistent with threshold service levels, specific project guidelines and/or general operational needs of the Fire Department.
5. Demonstrate the ability to provide adequate facilities to access required fire stations in conjunction with the construction of sewer and water facilities.

II.5.4.3.4 Existing Conditions

There are currently 6 city stations and 1 fire protection district station serving the City of Chula Vista. The existing and future stations are listed below:

Table E FIRE STATION INVENTORY		
Chula Vista Existing Facilities	**Location**	
Station #1	447 "F" Street	
Station #2	80 East "J" Street	
Station #3	1410 Brandywine	
Station #4	861 Otay Lakes Road	
Station #5 (Montgomery)	391 Oxford Street	
Interim Station #6	975 Lane Avenue	
Fire Training Tower	850 Paseo Ranchero	
Fire Prevention Bureau	447 "F" Street	
Fire Administration	447 "F" Street	
Fire Protection District Facility		
Bonita/Sunnyside Fire Protection Dist.	4900 Bonita Road	
Planned Facilities		**Cost Estimate**
Station #4 (to be relocated)	850 Paseo Ranchero	$1,250,000
Station #5 (to be reconstructed)	391 Oxford Street	$1,200,000
Station #6 (permanent facility)	EastLake Woods	$1,000,000
Otay Ranch #7	Village 2	None Established
Rolling Hills #8	Rolling Hills	None Established
Otay Ranch #9	Village 13	None Established
Other Capital Improvements		
Public Safety Communications (CAD/RMS)	Dispatch Center	$4,612,050
Public Safety Communications (800MHz)	Citywide	None Established
Brush Engine	Eastern Territories	$225,000

II.5.4.3.5 Adequacy Analysis

The City of Chula Vista Fire Department (CVFD) currently serves areas within the City's boundaries including the Otay Ranch Village 11 SPA. The closest CVFD stations to the project site are:

- Relocated Fire Station #3, currently under construction in the Sunbow development.
- Permanent Fire Station #6, located in the EastLake Woods.
- Planned Fire Station #8, to be located in the Rolling Hills development.
- Planned Fire Station #7 to be located in Village 2

The nearest station to the Otay Ranch Village 11 SPA project is the Relocated Fire Station #3, in the Sunbow development. Fire Station #7 is estimated to be completed the second quarter of 2003 and will provide first-in coverage to the project. Relocated #3 was operational in June 2001. In the future, however, once Hunte Parkway is completed, Planned Fire Station #8 will be the station to provide first-in coverage to Village 11.

According to the City's Growth Management Coordinator, times for Emergency Response were not met during the July, 1999, to June, 2000, period. The Fire Department responded to 79.7% of emergency calls Within 7 minutes, compared with the 85% threshold level that had been based on an estimated 1.3 minute dispatch and turnout and 5.7 minute travel time. However, the Fire Department is recommending a new threshold level of 80% of emergency calls responded to within 7 minutes (2 minutes dispatch and turnout and 5 minute travel). This recommendation is based on new data that was obtained through the use of the 1999 Computer-Aided Dispatch System (CAD).

The Fire Department reported to the GMOC that the factors contributing to travel time increases include responding to freeway incidents, the lower density, hilly terrain, and circuitous non-grid nature of streets in new residential neighborhoods, in eastern Chula Vista. The Fire Department maintains that had this situation existed in 1989 the threshold travel time (set at 5 minutes) would have reached 79.6% of emergency calls.

American Medical Response provides emergency medical services to the project, on a contract basis for the City of Chula Vista. There are two American Medical Response stations, which provide paramedic with EMT services to the City of Chula Vista exclusively.

II.5.4.3.6 Financing Fire Service Facilities

In January 1991, the Chula Vista City Council adopted Ordinance No. 2320 establishing a Development Impact Fee to pay for various public facilities within the City of Chula Vista. The facilities are required to support future development within the City and the fee schedule has been adopted in accordance with Government Code Section 66000. The fees were updated by adoption of Ordinance No. 2809-B on June 20, 2000. The portion of the fee attributable to fire and emergency medical services is $203/EDU.

The Otay Ranch Village 11 SPA will be subject to the payment of the fee at the rate in effect at the time building permits are issued. At the current fee rate, the Otay Ranch Village 11 SPA obligation at build out is $481,313.

Table E.1
Otay Ranch Village 11
Public Facilities Fees For Fire/EMS

Development Phase	EDUs	Fire/EMS Fee @ $203/EDU
1	532	$107,996
2	1,096	$222,488
3	743	$150,829
Total	**2,371**	**$481,313**

II.5.4.3.7 Threshold Compliance and Recommendations

Similar to the discussion concerning the Police Department, the Fire Department has been out of compliance with the Threshold for several years. The GMOC 1999 report, dated April 29, 2000 included a discussion on an in-depth report that was prepared by the City's Special Projects Division in concert with the Fire Department, titled "Report on Fire Threshold Performance 1990-1999", April 13, 2000. The report investigated response times and Fire/EMS Threshold performance based on analysis of CAD system data.

This report presents three key conclusions that explain the non-compliance, along with several recommendations, including a proposal for an adjustment to the Threshold Standard. With regard to calculating the aforementioned Threshold response rates, it should be noted that the CAD system data was "normalized[11]" in order to account for changes in service levels resulting from the redistribution of calls for service from urban (western) to non-urban (eastern) districts. The GMOC agreed with the use of this method for both the current, and future analyses.

As presented in the GMOC Report, three key factors are cited to explain why the Fire Department has been in non-compliance. These factors are: (1) original measurement and data corrections, (2) increased travel time, and (3) operational changes. The Report makes several recommendations in this regard. These recommendations have been included in this section of the report.

Recommendations:

The City will continue to monitor Fire Department responses to emergency fire and medical calls and report the results to the GMOC on an annual basis.

The Otay Ranch Village 11 SPA shall be conditioned to pay Public Facilities Fees at the rate in effect at the time building permits are issued.

The Developer shall contribute their fair share of the costs to construct the Otay Ranch Fire Station #7 in Village 2.

The Otay Ranch GDP requires that as a condition of SPA plan approval, the Fire Department review fuel modification plans. The Draft Brush Management Program, an addendum to the City of Chula Vista's Landscape Manual, prepared by the Chula Vista Fire Department was the basis for information included in the Fuel Modification and Brush Management section of the SPA 1 Parks, Recreation, Open Space and Trails Master Plan, which will also be implemented as applicable in the Village 11 project.

[11] In this case the normalized figures assure that current data is consistent with historic threshold benchmarks by accounting for the relative increase in calls from the eastern part of the city. This process allows for consistent comparison of actual performance levels at two points in time; when the threshold was originally set in 1988 and today. See GMOC report for a more detailed explanation.

II.5.4.4 SCHOOLS

II.5.4.4.1 Threshold Standard

The City annually provides the two local school districts with a 12 to 18 month development forecast and requests an evaluation of their ability to accommodate the forecast and continuing growth. The Districts' replies should address the following:

1. Amount of current capacity now used or committed.
2. Ability to absorb forecasted growth in affected facilities.
3. Evaluation of funding and site availability for projected new facilities.
4. Other relevant information the District(s) desire(s) to communicate to the City and GMOC.

II.5.4.4.2 Service Analysis

School facilities and services in Chula Vista are provided by two school districts. The Chula Vista Elementary School District (CVESD) administers education for kindergarten through sixth grades. The Sweetwater Union High School District (SUHSD) administers education for the Junior/Middle and Senior High Schools of a large district that includes the City of Chula Vista. The purpose of the threshold standard is to ensure that the districts have the necessary school sites and funds to meet the needs of students in newly developing areas in a timely manner, and to prevent the negative impacts of overcrowding on the existing schools. Through the provision of development forecasts, school district personnel can plan and implement school facility construction and program allocation in line with development.

On November 3, 1998, California voters approved Proposition 1A, the Class Size Reduction Kindergarten-University Public Education Facilities Bond Act of 1998. Prior to the passage of Proposition 1A, school districts relied on statutory school fees established by Assembly Bill 2926 ("School Fee Legislation") which was adopted in 1986, as well as judicial authority (i.e., Mira-Hart-Murrieta court decisions) to mitigate the impacts of new residential development. In a post Proposition 1A environment, the statutory fees provided for in the School Fee Legislation remains in effect and any mitigation requirements or conditions of approval not memorialized in a mitigation agreement, after January 1, 2000, will be replaced by Alternative Fees (sometimes referred to as Level II and Level III Fees). The statutory fee for residential development is referred to in these circumstances as the Level I Fee (i.e., currently at $2.05 per square foot for unified school districts).

CVESD utilizes their School Facilities Needs Analysis (SFNA), February, 2000, to quantify, for the next five-year period, the impacts of new residential development on the districts school facilities, and to calculate the permissible Alternative Fees to be collected from such new residential development. To ensure the timely construction of school facilities to house students from residential development in Village 6, alternative fees or implementation of a Mello Roos Community Facilities District (CFD) will be necessary.

SUHSD utilizes the "Sweetwater Union High School District Long Range Comprehensive Master Plan", dated November 1989 and updated in May 1993.

II.5.4.4.3 Project Processing Requirements

SPA Plan/Public Facilities Finance Plans

1. Identify student generation by phase of development.
2. Specific siting of proposed school facilities will take place in conformance with the *Sweetwater Union High School District Long Range Comprehensive Plan,* November 1989 and Chula Vista Elementary School District's Standards and Criteria.
3. Reserve school sites, if necessary, or coordinate with the district for additional school classrooms.
4. Provide cost estimates for facilities.
5. Identify facilities consistent with proposed phasing.
6. Demonstrate the ability to provide adequate facilities to access public schools in conjunction with the construction of water and sewer facilities.
7. Secure financing.

II.5.4.4.4 Existing Conditions

School Facilities Inventory, Chula Vista Elementary School District

Currently, the CVESD's inventory consists of 37 elementary schools including 5 Charter schools. Next year the district's inventory is expected to increase to 40 schools. Table F lists existing schools together with the capacity and enrollment of each. Capacity using existing permanent and relocatable buildings is 24,804. Enrollment is currently approximately 23,351. Three of the 37 schools, Casillas, Castle Park and Lauderbach are over capacity. Eleven of the 37 schools, Chula Vista LCC, Cook, Feaster, Finney, Hilltop, Kellogg, Otay, Palomar, Valle Lindo, Valley Vista and Vista Square are either near or slightly above capacity. Nineteen schools are on a traditional calendar and 18 are in a year round calendar.

New elementary schools will be needed to meet the educational needs of students generated from the projected development and resultant population increase. The district has experienced rapid growth during the past decade. During the period from 1990 to 1998 District enrollment went up by 3,035 students, an increase of 17%. This growth was reportedly due to:

1. Demographic changes in older neighborhoods in the west;
2. New growth in the eastern territories; and
3. Higher student generation ratios (students per household) in some new developments in the east.

Within the next nine months the district will have three new elementary schools completed. Two of these new elementary schools are located in the Otay Ranch development within Village 1 and Village 5. These two schools will increase the District capacity by 1,500 students, 750 students per school. The third school under construction is the Chula Vista Learning Community Charter School located at Broadway and K Street. Further, the district has two additional school sites located in the Sunbow and Otay Ranch Village 1 West developments, if needed. The following table summarizes the District's current enrollment versus capacity.

Table F Chula Vista Elementary School District Enrollments vs. Capacity			
School	**Enrollment 10/20/2000**	**Capacity using Existing Bldg.**	**Over Capacity**
Allen	440	450	-10
Arroyo Vista	688	750	-62
Casillas	825	750	76
Castle Park	615	600	15
Chula Vista Hills	564	600	-36
Chula Vista LCC	353	350	3
Clear View	590	600	-10
Cook	534	530	4
Discovery	910	960	-50
EastLake	690	800	-110
Feaster	1125	1120	5
Finney	536	540	-4
Halecrest	530	590	-60
Harborside	732	780	-48
Hilltop Drive	552	560	-8
Juarez-Lincoln	651	750	-99
Kellogg	431	430	1
Lauderbach	984	940	44
Loma Verde	724	740	-16
Los Altos	513	540	-27
Marshall	409	750	-341
Montgomery	463	510	-47
Mueller	869	900	-31
Olympicview	710	820	-110
Otay	688	690	-2
Palomar	451	450	1
Parkview	414	550	-136
Rice	729	750	-21
Rogers	572	630	-58
Rohr	582	610	-28
Rosebank	720	730	-10
Silver Wing	610	630	-20
Sunnyside	567	590	-23
Tiffany	663	710	-47
Valle Lindo	521	520	1
Valley Vista	679	680	-1
Vista Square	716	720	-4
Total	**23,351**	**24,620**	**-1269**

Source: CVESD.

School Facilities Inventory, Sweetwater Union High School District

The SUHSD currently administers ten (10) junior high/middle schools and nine (9) senior high schools plus one under construction in Otay Mesa plus one continuation high school within the District. Of the nine junior highs, six have been converted to middle schools serving grades seven and eight. As the population grows, the District is projecting a need for and must secure funding for 3 middle schools and 3 high schools throughout the District's boundaries. The following table summarizes the District's current enrollment versus capacity.

Table F.1
Sweetwater Union High School District
Enrollments vs. Capacity

School site	Adjusted Total Capacity	10/2000 Unofficial CBEDS Enrollment	Capacity vs '00 CBEDS
Middle Schools			
Bonita Vista	1,738	1,198	540
Castle Park	1,613	1,298	315
Chula Vista	1,396	1,201	195
Granger	1,380	1,100	280
Hilltop	1,504	1,227	277
Mar Vista Mid.	1,581	1,431	150
Montgomery Mid.	1,614	1,098	516
National City Mid.	1,054	891	163
Rancho del Rey	1,613	1,240	373
Southwest Jr.	1,350	1,160	190
Subtotal	**14,843**	**11,844**	**2,999**
High Schools			
Bonita Vista	2,487	2,485	2
Castle Park	2,061	1,973	106
Chula Vista	2,420	2,440	-20
EastLake	2,424	2,235	189
Hilltop	2,019	1,998	21
Mar Vista	1,879	1,926	-47
Montgomery	2,440	2,530	-90
Southwest	2,408	2,205	203
Sweetwater	2,163	2,189	-26
Palomar.	713	522	191
Subtotal	**21,034**	**20,503**	**531**
Total	**36,877**	**32,347**	**3,530**
Other		2,753	
CBED's Total		**35,100**	

Source: SUHSD

Within the district, the primary need over the next several years is at the high school level. In 2001, the district commenced construction on a new high school in Otay Mesa. Depending upon state funding another new high school is planned to be located in Otay Ranch Village 2. Planned for the future are two middle schools and another high school will be located in Otay Ranch. In addition, another middle school is planned in EastLake.

Table F.2 Sweetwater Union High School District 2002-2005 Planned Schools		
Future Schools	**Capacity**	**Est. Opening Date**
Junior/Middle School in EastLake Woods	1,500	2005
High School/Otay Mesa	2,400	2002
High School/Otay Ranch	2,400	2002/3

II.5.4.4.5 School Sizing and Location

The Otay Ranch Village 11 is proposed to consist of 2,304 dwelling units at build out. At completion, the proposed project could generate approximately 1,509 students using the following Student Generation Factors:

Elementary (K-6) = .335* students/dwelling unit
Middle School (7-8) = .11 students/dwelling unit
High School (9-12) = .21 students/dwelling unit
*Rate from CVESD Fee Justification Report, February 2000.

By phase and school category, Otay Ranch Village 11 SPA project is expected to generate the following students:

Table F.3 Otay Ranch Village 11 Student Generation By Development Phase					
Phase	**Dwelling Units**	**Student Generation**			
		Elementary .335 per DU	**Middle .11 per DU**	**Sr. High .21 per DU**	**Total Students**
1	532	178.2	58.5	111.7	348.4
2	1,029	344.7	113.2	216.0	673.9
3	743	248.9	81.7	156.0	486.6
Subtotal	**2,304**	**771.8**	**253.4**	**483.7**	**1508.9**

School Size Standards:

Elementary	700-750 students
Middle	1,500 students
Senior High	2,400 students

Chula Vista Elementary School District:

The CVESD is in agreement with the location of the school site in Otay Ranch Village 11. The State Department of Education must approve the site prior to district acceptance. Due to the tremendous growth and enrollment in the CVESD, it is the district's intent to retain the 10-acre site as identified in the SPA Plan. However, should the site be determined at a later date to be excess property for the purposes of a new school, the district will notify appropriate parties at that time.

The Village 11 Site Utilization Plan identifies a 10-acre elementary school site within the village core. As noted above, the build-out of Village 11 would generate the need to house approximately 770 elementary students. Generally, CVESD prefers to construct schools, which serve approximately 750 students. The Village 11 elementary school may need to be expanded from the districts preferred size to accommodate the projected students. The elementary school will be under construction during Phase 2 of the project.

Sweetwater Union High School District:

It is anticipated that the 253 middle school students generated by the Village 11 SPA will be served at facilities within the district until the Village 11 middle school is constructed. The Otay Ranch GDP School Facility Implementation Plan is based on the premise that schools will be constructed when half of the school's projected students reside in the community. The maximum middle school capacity is 1,500 students, which would indicate a school construction trigger of approximately 750 students. However, throughout the district there is abundant middle school capacity. Additional middle schools will be constructed when overall demand begins to approach existing capacity. The 25.6-acre middle school site within Village 11 is located in the southern portion of the Village Core at the corner of EastLake Parkway and Hunte Parkway. It is anticipated that the middle school will be under construction during Phase 3 of the project.

Based on the maximum High School capacity of 2,400 students, it is anticipated that the 484 students generated by Village 11 will be served by existing High School facilities until the proposed High School in Village 2 is constructed (expected to be completed in 2002/3). The proposed GDP Amendment, if approved, will remove the current High School site designation from Village 11 and replace it with a Junior High School site. The City and SUHSD are currently considering a new High School site location within Village 7 or 8.

Demand for adult school facilities will be satisfied within existing facilities in the Sweetwater Union High School District, until a new facility can be constructed in the Eastern Urban Center on a site reserved pursuant to the Otay Ranch GDP.

II.5.4.4.6 Financing School Facilities

California Government Code section 65995 et. seq. and Education Code Section 17620 et. seq. authorize school districts to impose facility mitigation exactions on new development as a way to address increasing enrollment caused by that development.

The current allowable rate for school fees has been limited by the recent passage of SB 50 (as Proposition IA on November 31, 1998). The current fee is $2.05 per square foot for residential construction and $.33 per square foot for nonresidential. These amounts are divided between the two districts as follows: For the Sweetwater District - $1.15 and $0.18 per square foot for residential and nonresidential, respectively; and for the Chula Vista District - $0.90 and $0.15 per square foot for residential and nonresidential, respectively.

Although the collection of school fees is one method available to defray the cost of new development, it is not an acceptable solution since the maximum amount that could be collected by law represents less than one-fourth the cost to construct schools. The SUHSD is unable to meet the needs of this project with current school facilities and it is unable to construct new facilities to meet the impacts of this project through the provision of school fees.

In recognition of this funding deficiency, it is the policy of each district to fully mitigate the facility impacts caused by a master planned community via the creation of a Mello-Roos Community Facilities District as a condition of approval of the SPA Plan (CVESD) or prior to recordation of a final map (SUHSD). The following Mello-Roos Districts have been created by each district:

SUHSD

CFD No. 1	EastLake
CFD No. 2	Bonita Long Canyon
CFD No. 3	Rancho del Rey
CFD No. 4	Sunbow
CFD No. 5	Annexable
CFD No. 6	Otay Ranch
CFD No. 7	Rolling Hills Estate
CFD No. 8	Coral Gate (Otay Mesa)
CFD No. 9	Ocean View Hills (Otay Mesa)
CFD No. 10	Remington Hills/Annexable
CFD No. 11	Lomas Verde
CFD No. 12	Otay Ranch
CFD No. 13	San Miguel Ranch

CVESD

CFD No. 1	EastLake
CFD No. 2	Bonita Long Canyon
CFD No. 3	Rancho del Rey
CFD No. 4	Sunbow
CFD No. 5	Annexable
CFD No. 6	Otay Ranch
CFD No. 10	Annexable for future annexations (Replaces CFD No. 5).
CFD No. 11	Otay Ranch (Lomas Verde) McMillin
CFD No. 12	Otay Ranch (Village 1 West).

Based on historical data available from each district an estimate of costs for the construction of school facilities on a per student basis is provided. Both districts follow state standards for determining the costs and size for school construction. The cost for a high school, including land acquisition, is approximately $21,666 per student (2000 dollars). Excluding land, the cost for a high school is approximately $17,500 per student. The cost for a middle school, including land acquisition, is approximately $16,666 per student (2000 dollars). Excluding land, the cost for a middle school is $13,333 per student. The cost for an elementary school, including land acquisition, is approximately $13,489 per student (2000 dollars). Excluding the land, the cost for an elementary school is approximately $10,289 per student. Land acquisition cost is calculated at approximately $225,000/net usable acre (10 acre elementary school site).

Using the above costs per student together with the school size, the following approximate costs per facility can be anticipated (2000 dollars).

Elementary School Cost	
(750 students) ($10,289/student w/o land cost)	$10,002,000
(750 students) ($13,489/student w/land cost)	$12,252,000
Middle School Cost	
(1,500 students) ($13,333/student w/o land cost)	$20,000,000
(1,500 students) ($16,666/student w/ land cost)	$25,000,000
High School Cost	
(2,400 students) ($17,500/student w/o land cost)	$42,000,000
(2,400 students) ($21,666/student w/ land cost)	$52,000,000

II.5.4.4.7 Threshold Compliance and Recommendations

As future development applications are processed in the Eastern Territories, the City shall coordinate with each school district to ensure that development does not occur until acceptable school site(s) are identified and a financing mechanism satisfactory to each district is in place.

Prior to SPA approval, the project proponent(s) shall provide documentation to the City confirming satisfaction of SUHSD and CVESD facility funding requirements to offset student generation impacts. Funding shall be satisfied through the Mello-Roos Community Facilities District financing method or other means acceptable to each District.

In addition, condition the tentative map(s) to require that no final map shall be approved unless and until a school facility financing mechanism is in place to the satisfaction of the Sweetwater Union High School District and the Chula Vista Elementary School District.

II.5.4.5 LIBRARIES

II.5.4.5.1 Threshold Standard

Population ratio: 500 square feet (gross) of library adequately equipped and staffed facility per 1,000 population.

II.5.4.5.2 Service Analysis

The City of Chula Vista Library Department provides library facilities.

II.5.4.5.3 Project Processing Requirements

SPA Plan/Public Facilities Finance Plans

1. Identify phased demands in conjunction with the construction of streets, water and sewer facilities.
2. Specifically identify facility site in conformance with the *1998 Chula Vista Library Master Plan.*

II.5.4.5.4 Existing Conditions

The City currently provides library services through the Chula Vista Public Library at Fourth and "F" Street (Civic Center), in central Chula Vista to serve the entire community. The existing libraries are listed in the following table.

Table G
Existing Library Facilities

Existing Libraries	Square Footage
Chula Vista (Civic Center)	55,000
South Chula Vista	37,000
EastLake	10,000
Total Existing Square Feet	**102,000**

II.5.4.5.5 Adequacy Analysis

Using the threshold standard of 500 square feet of library space per 1,000 population, the demand for library space based on a May 3, 2000, population of 174,319 (Based on California Department of Finance Estimate, May 3, 2000) is approximately 87,160 square feet. Chula Vista currently provides 102,000 square feet of library space. This represents a 14,840 square foot surplus. The demand generated by the 14,258 forecasted dwelling units (2005) is 21,458 square feet ((14,258 x 3.01/1,000) x 500). The demand for library space generated by the existing and forecasted dwelling units totals approximately 108,618 (87,160 + 21,458) square feet. Comparing this demand to the existing library square footage of 102,000 square feet results in a deficit of 6,618 square feet after build-out of the 14,258 forecasted dwelling units.

A new Library Master Plan Update was adopted by the City Council on December 8, 1998. The Update addresses such topics as library siting and phasing, the impacts of new technologies on library usage, and floor space needs. The plan calls for the construction of a full service regional library of approximately 30,000 square feet east of I-805 by the year 2005. The plan also recommends that this first branch be built in the Rancho del Rey at east H Street and Paseo Ranchero. However, with construction of this facility, the 10,000 square foot EastLake Library is recommended to be closed. With this closure, there is a projected net loss in library space of 11,403 square feet by the year 2005. Ultimately, the construction of a new east side regional library in Otay Ranch will offset the deficit. Currently, the city is considering locating the new east side regional library in Village 2.

Future library facilities are listed in the following table:

Table G.1
Future Library Facilities

Future Libraries	Net Square Footage	Estimated Cost
1st east side regional library (RDR) @ 30,000 sf	20,000*	$12,000,000
2nd east side regional library (Otay Ranch) @ 36,758 sf	36,758**	$14,703,200
Total Future Net Square Feet	**56,758**	
Total Master Plan Library Square Feet (existing and future)	**158,758**	

* Assumes construction of the first 30,000-square foot east side regional library by year 2005 and the closure of the 10,000-square foot EastLake library, per the 1998 Library Master Plan.

** Assumes construction of the second 36,758-square foot east side regional library in the EUC site (Otay Ranch GDP).

The following table highlights existing plus forecasted project demands for library space as compared to the existing and scheduled library space as well as the impact of the Otay Ranch Village 11 SPA on library facilities.

Table G.2
Otay Ranch Village 11 SPA
Library Space Demand vs. Supply

	Population[12]	Demand Square Footage	Supply Square Footage	Above/(Below) Standard
Existing (Citywide)	174,319	87,160	102,000	14,840
Forecasted Projects to 2005 (14,258 x 3.01)	42,917	21,458	0	(6,618)
1st east side regional library			20,000	13,382
2nd east side regional library			36,758	50,140
Subtotal	**216,636**	**108,618**	**158,758**	**50,140**

Otay Ranch Village 11 SPA will generate a total library demand of 4,161 square feet that can be accommodated in the projected total square feet of Library space.

[12] Based on California Department of Finance Estimate, May 3, 2000.

11.5.4.5.6 Financing Library Facilities

In January 1991, the Chula Vista City Council adopted Ordinance No. 2320 establishing a Development Impact Fee to pay for various public facilities within the City of Chula Vista. The facilities are required to support future development within the City and the fee schedule has been adopted in accordance with Government Code Section 66000. The fees were updated by adoption of Ordinance No. 2809-B on June 20, 2000. The portion of the fee attributable to Library Facilities is $638/EDU.

The Otay Ranch Village 11 SPA project is within the boundaries of the current public facilities DIF program, and the projects will be subject to the payment of the fee at the rate in effect at the time building permits are issued. At the current library fee rate, the Otay Ranch Village 11 SPA library obligation at build-out is $1,469,952.00.

Table G.3
Otay Ranch Village 11 SPA
Public Facilities Fees For Libraries

Development Phase	EDUs	Library Fee @ $638/EDU
1	532	$339,416.00
2	1,096	$656,502.00
3	743	$474,034.00
Total	**2,371**	**$1,469,952.00**

11.5.4.5.7 Threshold Compliance and Recommendations

Based upon the analysis contained in this library section, the city's current library facilities (102,000 square feet) are 2,591 below the threshold standard (see table G.2). The existing plus proposed new library space totals 158,758 square feet. The total forecasted projects including the Otay Ranch Village 11 SPA project totals a demand 25,750 square feet. This results in an excess (above standard) supply of 28,417 square feet.

No mitigation is required other than the payment of the Public Facilities DIF for library facilities at the rate in effect at the time building permits are issued.

II.5.4.6 PARKS, TRAILS AND OPEN SPACE

II.5.4.6.1 Park Threshold Standard

Three (3) acres of neighborhood and community parkland with appropriate facilities shall be provided per 1,000 residents east of Interstate 805. In addition, the Otay Ranch GDP requires 12 acres of other active and passive recreation and open space per 1,000 residents.

II.5.4.6.2 Service Analysis

The City of Chula Vista provides public park and recreational opportunities through the Park & Recreation Department which is responsible for the acquisition and development of parkland. All public park development plans are reviewed by City staff and presented to the Parks and Recreation Commission for review. A recommendation is made by this Commission to the deciding body, the City Council.

The Parks and Recreation Element of the General Plan dated July 1990 and revisions through September 5, 1995, serves as the master plan for park facilities. While there is currently no existing citywide detailed parks master plan, the City staff is nearing completion of a new Park Master Plan that it expects to forward to the City Council for adoption by mid year 2001.

II.5.4.6.3 Project Processing Requirements

SPA Plan/Public Facilities Finance Plans

1. Identify phased demands in conformance with street improvements and in coordination with the construction of water and sewer facilities.
2. Specific siting of the facility will take place in conformance with the *Chula Vista General Plan Park and Recreation Element.*
3. Site reserved.
4. Park site planning and design consistent with the City's Park Master Plan and the Chula Vista Landscape Manual.

II.5.4.6.4 Existing Conditions

The existing and future parks as depicted in the Park and Recreation Element of the General Plan and as updated by the City of Chula Vista Park Master Plan. The Master Plan is currently being prepared and it is expected to be completed Spring 2001.

II.5.4.6.5 Project Park Requirements

Compliance with Public Park Standards

All new development in the City of Chula Vista is subject to the requirements contained in the City's Parkland Dedication Ordinance revised April 4, 2001, which is set forth in Municipal Code Chapter 17.10. The ordinance establishes land development fees for park acquisition and development, sets standards for dedication and establishes criteria for acceptance of parks and open space by the City of Chula Vista. Parkland dedication requirements are shown on Table H.

Table H Parkland Dedication Standards		
Dwelling Unit Type	**Land Dedication per Unit**	**Dwelling Units per Park Acre**
Single-Family - Detached	423 sf/du	103 du/ac
Single-Family - Attached	366 sf/du	119 du/ac
Multiple - Family	288 sf/du	151 du/ac

Parkland dedication requirements for the Otay Ranch Village 11 SPA project are outlined in the table below.

Table H.1 Village 11 Parkland Dedication Requirements per City Ordinance			
Dwelling Unit Type	**Parkland Required/DU**	**Number of Dwelling Units**	**Park Acres Required**
Single Family - Detached	423 sf/du	1,311	12.78
Single Family - Attached	366 sf/du	678	5.70
Multiple Family	288 sf/du	315	2.08
TOTALS		**2,304**	**20.51**

The Otay Ranch Village 11 SPA Land Use Table (Table B) and the Phasing Table (Table B.1) identifies the park designations and acreage that are also shown in Table H.2. Table H.2 also identifies the phase of development in which the park will be constructed and the park acres that the city has determined will be given credit for purposes of satisfying the project's parkland dedication as measured against the City's Parkland Dedication Ordinance. The Neighborhood Park will be graded and offered for dedication in the context of the development of Phase 1 of the Otay Ranch Village 11 SPA project.

Table H.2 Village 11 SPA Park Acres and Eligible Credits				
PARK IDENTIFICATION	**NET ACRES**	**PHASE**	**PROPOSED CREDIT %**	**ELIGIBLE CREDIT ACRES**
Community Park	0.0	0	0%	0.0
P1 Public Neighborhood Park	7.0	1	100%	7.0
P2 Private Recreational Facilities	3.8	1	0%	0.0
P3 Private Recreational Facilities	3.0	2	0%	0.0
P4 – Town Square	1.0	2	100%	1.0
Total acres eligible for credit against Park Acquisition and Development (PAD) fees				8.0
Otay Ranch Village 11 SPA PAD Requirements				20.51
Otay Ranch Village 11 SPA Park Obligation Acreage				12.51

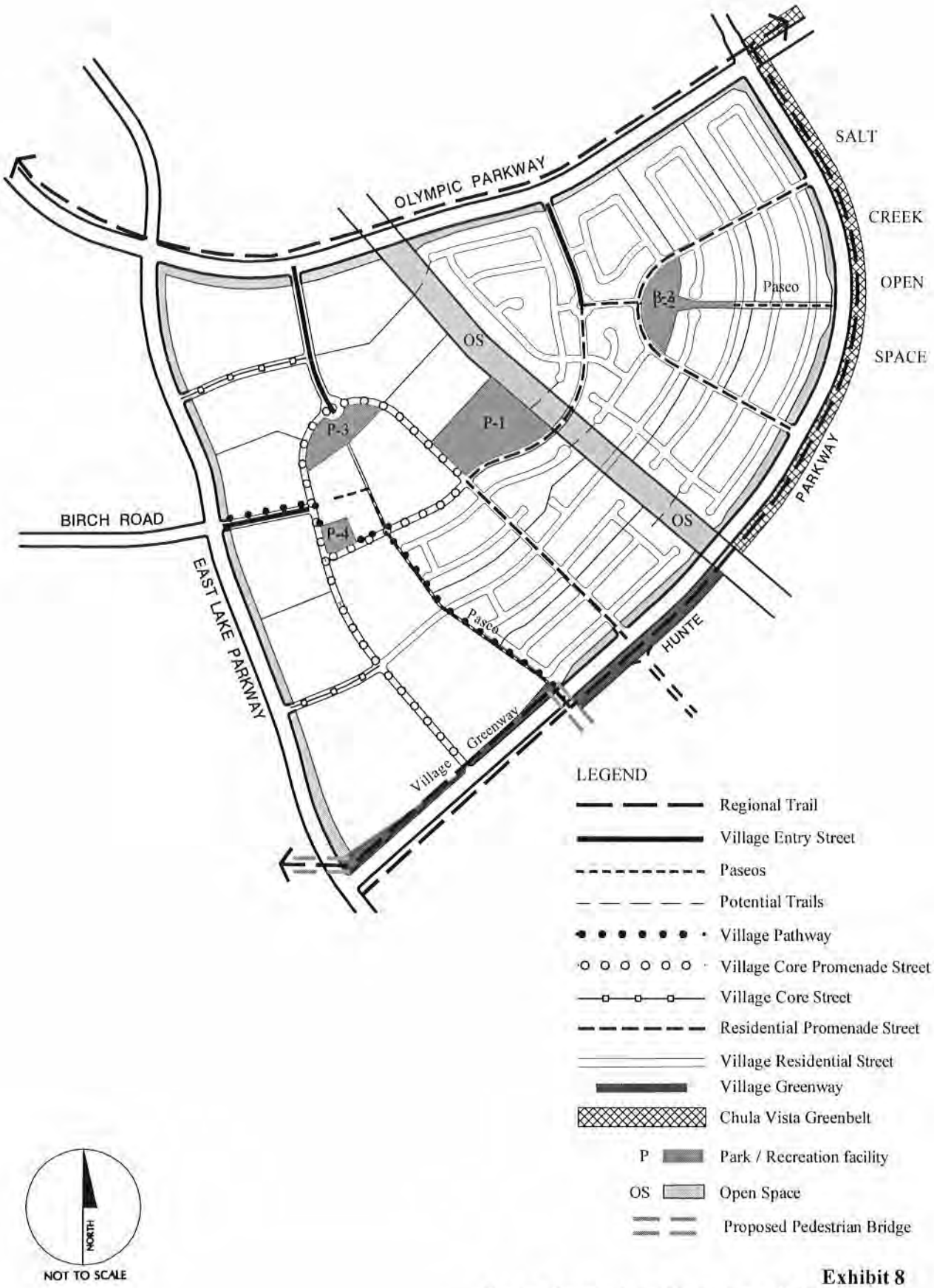


Exhibit 8
Parks, Recreation, Open Space & Trails Plan

Village 11generates an estimated population of 6,935 (2,304 dwelling units x 3.01 population factor). To meet the city threshold requirements the amount of parkland dedicated is based on a standard of 3 acres per 1,000 population. The standard is based on State of California government Code 66477, also known as the Quimby Act, which allows a city to require by ordinance, the dedication of land or payment of fees for park or recreational purposes. Based upon the threshold requirement, Village 11 must provide approximately 20.8 acres of parkland (see table below).

Table H.3
Quimby Act Parkland Requirements

Village 11 Population	Standard	Parkland Acres Required
6,935	3 acres per 1,000 population	20.8

11.5.4.6.6 Park Adequacy Analysis

The table below, is a comparison of park acreage demands and supply east of Interstate 805 for existing, approved projects, as well as the phased addition of the Otay Ranch Village 11 SPA project.

Table H.4
Park Acreage Demand Compared to Supply East of Interstate 805
As of January, 2001

	Population East of I-805	Demand Park Acres[13]	Supply Park Acres	Eligible Credit Acres	Net Acres +/- Standard	Project Cumulative +/- Standard
Existing[14]	62,149	186.5	240.6	240.6	54.1	n/a
Forecasted Projects to 2005	42,917[15]	128.8	81.3	81.3	-47.5	n/a
Subtotal	**105,066**	**315.3**	**321.9**	**321.9**	**6.6**	**n/a**

A review of the existing and approved park demands with including Otay Ranch Village 11 indicates a total demand for 315.3 acres of Neighborhood and Community Park east of Interstate 805. The total supply of park acres is approximately 321.9, which is 6.6 acres more than the demand.

Table H.5
Otay Ranch Village 11 SPA by Phase

Phase	Population	Demand Park Acres	Supply Park Acres	Eligible Credit Acres	Net Acres +/- Standard	Project Cumulative +/- Standard
1 (532 Dwelling Units)	1,601	4.8	3.8	0.0	-4.8	-4.8
2 (1,029 Dwelling Units)	3,097	9.3	12.9	9.9	9.9	-4.2
3 (743 Dwelling Units)	2,237	6.7	0.0	0.0	-6.7	-10.9
Total	**6,935**	**20.8**	**16.7**	**9.9**	**-10.9**	**-10.9**

[13] Based on City Threshold requirement of 3 acres of neighborhood and community parkland per 1,000 residents east of I-805.
[14] Existing figures from the Chula Vista Planning and Building Department, March 2001.
[15] Population calculation: 14,258 DU's @ 3.01/DU

The proposed plan for Village 11 estimates a village population of 6,935 (based on a population factor of 3.01 persons per 2,304 dwelling units), requiring 20.8 acres of parkland. The number of dwelling units approved at the Tentative Map stage will determine the actual population and park requirement. Village 11 provides a net 7.0-acre neighborhood park (P1) and a net 1-acre privately maintained town square (P4) for a total of 8.0 acres of creditable parks. The remaining city parks obligation will be met through equitable contribution to community parks in Otay Ranch. To enhance the pedestrian oriented village concept, a 3-acre private recreational facility (P3) in the village core and a 3.8-acre private recreational facility (P2) in the eastern portion of the village will also be provided. These private recreational facilities areas, however, will not be counted towards meeting the project's parkland obligation.

II.5.4.6.7 Open Space and Trails

Open Space

As indicated in section II.5.4.6.1, the Otay Ranch GDP requires 12 acres of other active and passive recreation and open space per 1,000 residents. The largest component of open space in the Otay Ranch is the Resource Management Plan (RMP) Preserve. As prescribed by the RMP, the development of each Otay Ranch Village requires a contribution to the Otay Valley preserve. The developers of Village 11 will convey approximately 422.2 acres of natural open space in the adjacent Salt Creek and Otay River valleys to the preserve.

The Village 11 project site is located within the Otay Valley Parcel area of the Otay Ranch. The Otay Ranch GDP indicates that the Otay Valley Parcel will provide approximately 4,228 acres of open space lands. This amount of open space exceeds the GDP requirement for other active and passive recreation and open space per 1,000 residents. Therefore, no additional open space land dedication is required for Village 11.

Open space within Village 11 is comprised of the SDGE/SDCWA easement, the parkways adjacent to surrounding major streets, paseos and manufactured slopes. These open spaces provide pedestrian connections within the village, passive recreational opportunities and view opportunities. These open space areas consist of approximately 49.2 acres. In addition, Village 11 provides a 3-acre private recreational facility (P3) in the village core and a 3.8-acre private recreational facility (P2) in the eastern portion of the village.

Open space lands indicated on the Proposed Village 11 SPA Land Use Plan (Exhibit 1) will be preserved through the dedication of open space easements and/or lots to the City or other appropriate agency, or to a Master Community Association. Uses will adhere to GDP policies regarding the design of open space. Further, uses will be strictly controlled through zoning regulations.

The land to be developed as Village 11 has been used for agriculture and encroachment into sensitive habitat has been avoided. Minor drainage channels within the development area are considered Waters of the United States by the Army Corps of Engineers and may require mitigation through habitat enhancement in Salt Creek or elsewhere in the preserve. Construction of Hunte Parkway and adjacent public facilities will require manufactured slopes adjacent to Salt Creek. All construction will be consistent with the GDP and SPA plan requirements to enhance the preserve area habitat.

Trails

A trail system is incorporated as mobility and recreation components of Village 11. The trail system provides linkages within the village and connections to regional trails to provide access to neighboring villages and the Otay Valley Regional Park, as shown in Exhibit 8.

The internal street system of Village 11 provides walkways along all village streets. The preferred street design provides a parkway buffer between the roadway and sidewalk to enhance pedestrian comfort and promote safety. Paseos are provided as an alternative to pedestrian and bicycle trails sharing the public right-of-way street system. Paseos are internal village pedestrian trails linking neighborhoods to the village core, schools and parks. The paseos are generally accessed from cul-de-sac streets and have minimal road crossings to enhance their passive recreational quality. Paseos will be maintained through a Community Facilities District (CFD) or Community/Homeowners Association.

The Village 11 Trails, Parks and Open Space Plan (Exhibit 8) indicates that pedestrian bridges are planned to provide crossings over Hunte Parkway, providing access to the Salt Creek Open Space Preserve and the University site, and EastLake Parkway from the Eastern Urban Center (EUC) at Hunte Parkway. Additional details regarding the pedestrian bridges can be found in the Section II.5.4.1.11 of this report.

The Village 11 SPA Parks, Recreation, Open Space and Trails Master Plan provides a more detailed discussion of the Village's open space and trail system. Trail design shall conform to the standards contained in the Chula Vista Landscape Manual, Otay Ranch GDP and any other applicable adopted, City-wide Master Plans.

II.5.4.6.8 Financing Park, Open Space, and Trail Facilities

Chapter 17.10 of the Chula Vista Municipal Code as amended June 22, 1991 governs the financing of parkland and improvements. Included as part of the regulations are Park Acquisition and Development (PAD) fees established for the purpose of providing neighborhood and community parks and improvements. The Ordinance provides that fees are paid to the City prior to approval of a final subdivision map.

The Otay Ranch Village 11 SPA project is responsible for the following park development component of the PAD Fees as shown in the following tables. However, an applicant may dedicate and construct parks and receive credit against the payment of such PAD fees as further described in the following table and as may be amended from time to time:

Table H.6
Park Acquisition and Development (PAD) Fees Development Component Only

Phase	Dwelling Units			Development Component of PAD Fees/DU Total			Total Fees Due
	SFD	SFA	MFD	SFD@ $2,935	SFA@ $2,571	MFD@ $2,012	
1	532	0	0	$1,561,420	0	0	$1,561,420
2	328	386	315	$962,680	$992,406	$633,780	$2,588,866
3	451	292		$1,323,685	$750,732	0	$2,074,417
Total	**1,311**	**678**	**315**	**$3,847,785**	**$1,743,138**	**$633,780**	**$6,224,703**

The Otay Ranch Village 11 SPA project will provide 8.0 acres of parkland which is 12.51 acres less than the project's demand of 20.51 acres as identified in Table H.2. Table H.6

identifies the fees calculated for the development component of the PAD fees while Table H.7 identifies the fees calculated for the parkland acquisition component of the PAD fees. It is anticipated that the 8.0 acres of park obligation will be dedicated as opposed to the payment of fees for land acquisition. The remaining parkland obligation (12.51 acres), which will be met off-site, will require the payment of fees for land acquisition.

Table H.7
Park Acquisition and Development (PAD) Fees Acquisition Component Only

Phase	Dwelling Units			Acquisition Component of PAD Fees/DU Total			Total Fees Due
	SFD	SFA	MFD	SFD@ $2,115	SFA@ $1,830	MFD@ $1,440	
1	532	0	0	$1,125,180	0	0	$1,125,180
2	328	386	315	$693,720	$706,380	$453,600	$1,853,700
3	451	292		$953,865	$534,360	0	$1,488,225
Total	**1,311**	**678**	**315**	**$2,772,765**	**$1,240,740**	**$453,600**	**$4,467,105**

II.5.4.6.9 Threshold Compliance and Recommendations

Based upon the analysis contained in this section of the PFFP, the parks standard for both neighborhood and community parks measured on an area-wide basis east of Interstate 805 is projected to be met at the completion of the third phase of the Otay Ranch Village 11 SPA project.

On a project-level, the Neighborhood Park and Town Square provided within Otay Ranch Village 11 SPA meets part of the demand on a cumulative basis. In order to comply with the City's local park standard, it is the responsibility of the developer to comply with the City's Park Master Plan and ordinances related to park planning, to grade the sites according to the approved plan, and to install improvements or pay fees, or a combination thereof, as required by the City's Parkland Dedication Ordinance.

Community Park Phasing

The Community Park obligation will be met through the payment of PAD fees, prior to approval of the first Final Map for the project.

Neighborhood Park Phasing

1. Prior to the first Final A Map for the Project, an Irrevocable Offer of Dedication (I.O.D.) acceptable to the Director of Parks & Recreation, for the seven net acre neighborhood park site, shall be granted to the City.
2. Prior to issuance of the building permit for the 360th dwelling unit, construction of the neighborhood park shall commence.
3. Construction of the neighborhood park shall be completed within nine (9) months of park construction commencement.

The Neighborhood Park may be constructed under one of two alternative processes as determined by the Director of Parks and Recreation. These alternative processes consist of:

- The City collects PAD fees for development of the park facilities and the City uses such fee revenues to construct the park; or.
- The City accepts a "turn-key" park constructed by the Applicant/developer. The City's Parks and Recreation Department acts to oversee the process to insure the park is

constructed to City standards, which includes selecting the design and engineering consultants as well as the prime contractor.

Due to the fact that the City is in the process of preparing and adopting a citywide master plan, the park phasing may be refined during the tentative map process.

Town Square Phasing

Construction of the Town Square (P-4), shall be completed prior to the issuance of the last residential dwelling unit building permit within Phase Two (2).

Open Space Phasing

Open space lands indicated on the Proposed Village 11 SPA Land Use Plan will be preserved through the dedication of open space easements and/or lots to the City or other appropriate agency, or to a Master Community Association. The appropriate agency will be identified prior to a final map being recorded.

Trail Phasing

Trails will be phased in conjunction with adjacent open space. The timing of the construction of trail connections outside the phase of open space will be considered at the Tentative Map stage. These trails will be constructed by the developer within the open space district and maintained by the district or by a homeowner association. Trails adjacent to a street within a particular phase will be included in the grading and improvement plans and constructed within that phase or when the street is constructed.

II.5.4.7 WATER

II.5.4.7.1 Threshold Standard

1. Developer will request and deliver to the City a service availability letter from the Water District for each project, as defined by the City.

2. The City annually provides the San Diego County Water Authority, the Sweetwater Authority, and the Otay Water District with a 12 to 18 month development forecast and requests an evaluation of their ability to accommodate the forecast and continuing growth. The Districts' replies should address the following:

   a. Water availability to the City and Planning Area, considering both short and long term perspectives.

   b. Amount of current capacity, including storage capacity, now used or committed.

   c. Ability of affected facilities to absorb forecasted growth.

   d. Evaluation of funding and site availability for projected new facilities.

   e. Other relevant information the District(s) desire(s) to communicate to the City and GMOC.

The growth forecast and water district response letters shall be provided to the GMOC for inclusion in its review.

II.5.4.7.2 Service Analysis:

The Otay Water District (OWD) will provide water service for Otay Ranch Village 11. Annexation into Improvement Districts 22 and 27 will be required prior to water service being provided. The district has existing facilities north of the project site within the EastLake development. The district also has planned facilities in the vicinity of the project. Expanding the existing system can provide future water service. Dexter Wilson Engineering Incorporated prepared an *Overview of Water Service for Otay Ranch Villlage 11* dated November, 2000 to address the facilities necessary to support this project. The Wilson report provides recommendations for improvements to provide water service to the proposed development. In addition to potable water, the OWD will be the purveyor of recycled water to the project.

The Otay Water District utilizes the 1995 *Water Resources Master Plan* prepared by Montgomery Watson for all future CIP water facilities work. An environmental impact report was also prepared to assess the impacts of the Master Plan.

Prior to approval of the tentative map, the applicant shall prepare a Subarea Master Plan (SAMP) for water, and have it reviewed and approved by Otay Water District. The plan shall address both potable and recycled water systems.

II.5.4.7.3 Project Processing Requirements

SPA Plan/Public Facilities Finance Plans

1. Identify phased demands in conformance with street improvements and in coordination with the construction of sewer facilities.
2. Identify location of facilities for onsite and offsite improvements in conformance with the master plan of the water district serving the proposed project.
3. Provide cost estimates and proposed financing responsibilities.
4. Identify financing methods.
5. A Water Conservation Plan shall be required for all major development projects (50 dwelling units or greater, or commercial and industrial projects with 50 EDUs of water demand or greater.

II.5.4.7.4 Existing Conditions

Most of the water used in the San Diego County Water Authority (SDCWA) area is imported from the Metropolitan Water District (MWD). MWD receives its water supply through the State Water Project and the Colorado River Aqueduct. The San Diego County Water Authority conveys water from the MWD to local purveyors within San Diego County.

Potable water will be supplied to the Otay Ranch Village 11 project by the Otay Water District. The district currently relies solely on the SDCWA for water supply. The district has several connections to SDCWA Pipeline No. 4 which delivers filtered water from the Metropolitan Water District's filtration plant at Lake Skinner in Riverside County. The Otay Water District also has a connection to the La Mesa - Sweetwater Extension Pipeline which delivers filtered water from the R.M. Levy Water Treatment Plant in the Helix Water District. Currently, this connection supplies water to the north portion of the Otay Water District only. The Otay Water District has a connection to the City of San Diego's water system in Telegraph Canyon Road and has recently signed an agreement that allows them to receive water from this connection.

II.5.4.7.5 Adequacy Analysis Water

Water Conservation Plan

A Water Conservation Plan is required for all major development projects (50 dwelling units or greater, or commercial and industrial projects with 50 EDUs of water demand or greater). This plan is required at the Sectional Planning Area (SPA) Plan level, or equivalent for projects which are not processed through a Planned Community Zone. The City is in the process of developing guidelines for the preparation and implementation of Water Conservation Plans. This effort involves a pilot study to evaluate the relative effectiveness, costs and issues associated with the implementation of additional water conservation measures beyond those currently mandated, in three new development projects including Village 11. The evaluation will encompass additional technical water saving devices, as well as the potential expanded use of recycled water, and possible gray water use. The pilot study will provide information to be used in finalizing a Water Conservation Plan for Village 11 to be considered in conjunction with actions on the project's Tentative Subdivision Map.

A draft *Water Conservation Plan For Otay Ranch Village 11 SPA* prepared by Wilson Engineering dated September 2000, provides an analysis of water usage requirements of the proposed project, as well as a detailed plan of proposed measures for water conservation, use of reclaimed water, and other means of reducing per capita water consumption from the proposed project, as well as defining a program to monitor compliance. As indicated, this document will be finalized based upon outcomes of the pilot study. The Water Conservation Plan will be presented in conjunction with the SPA Plan document and Tentative Map and is, therefore, not a part of the Public Facilities Financing Plan.

Otay Ranch Village 11 SPA Water Demand

Otay Ranch Village 11 SPA is within the Otay Water District's 711 and 980 pressure zones. Water demand is projected using unit demand factors from the April 1995 Otay Water District Resources Master Plan. According to the Wilson Report the projected annual potable water demand is .70 MGD and the projected annual recycled water demand is .17 MGD. It is the policy of the Otay Water District to provide a maximum of five average days of terminal storage capacity and a minimum of five average days of supply from interconnections and other sources. Adequate capacity exists to meet the five-day storage requirement.

Otay Water District Master Plan

The Otay Water District's water and reclaimed water master plan includes water demands for this project as part of the overall demands in the area based upon land use data.

II.5.4.7.6 Existing Facilities Potable Water

The Village 11 project will be served by the Central Service Area of the Otay Water District. This area of the District is supplied water from Connection Number 10 and 12 to the SDCWA aqueduct which fills 624 Zone reservoirs. Water is then distributed within the 624 Zone and pumped to the 711 Zone and 980 Zone storage and distribution systems. Exhibit 9 provides a map of the existing and proposed water facilities in the vicinity of Village 11.

Additional terminal storage will not be a requirement for the Village 11 project. Within the past few years, the Otay Water District completed the 30 million gallon 624 Zone Reservoir along EastLake Parkway that provides terminal storage for their Central Service Area

711 Zone

There is currently one pump station in the 711 Zone, referred to as the Central Area Pump Station that is located at the 624 Zone Patzig Reservoir site. The station pumps water from the 624 Zone system into the 711 Zone distribution system and into two existing 711 Zone reservoirs located in the EastLake Greens development. The 711 Zone Pump Station currently has four pumps (one standby), each rated for 4,000 gpm, which results in a firm station capacity of 12,000 gpm. The pump station has the ability for expansion that will permit the addition of a fifth pump when necessary.

There are two existing reservoirs in the 711 Zone. These reservoirs are located at the same site within the EastLake Greens development and have capacities of 2.8 and 2.2 million gallons for a total of 5.0 million gallons. The major 711 Zone pipelines in the vicinity of the

Village 11 project include a 20-inch line in EastLake Parkway and a 24-inch line in Hunte Parkway.

980 Zone

There is presently one pump station in the 980 Zone, referred to as the EastLake Pump Station, which lifts water from the 711 Zone to the 980 Zone reservoirs. This pump station is located on the south side of Otay Lakes Road at Lane Avenue. This pump station is equipped with three 4,000 gpm pumps (one standby) for a firm capacity of 8,000 gpm.

There are two existing reservoirs in the 980 Zone system. The reservoirs are located on the Otay Water District use area property north of the Rolling Hills Ranch project. The reservoirs have a capacity of five million gallons each for a total capacity of 10 million gallons.

The only existing 980 Zone transmission lines in the vicinity of the Village 11 project are located north of the project, within the EastLake development. These lines include 16-inch lines in Hunte Parkway and Greenview Parkway and a 36-inch line in EastLake Parkway.

Recycled Water

Currently, the only source of recycled water for the Otay Water District is the Ralph W. Chapman Water Recycling Facility. This facility has a capacity of 1.3 mgd and can be expanded to an ultimate capacity of 3.84 mgd. Two ponds in the District's Recycled Use Area near the two existing 980 Zone potable water tanks provide storage of the effluent.

The storage ponds have a high water line of approximately 950 feet and provide the storage and supply for the 950 Zone distribution system. Initially the 680 Zone distribution system will be supplied by pressure reducing off the 950 Zone system. The South Bay Water Reclamation Plant will ultimately supply the 680 Zone. There are currently no 950 Zone or 680 Zone pipelines in place to supply recycled water to the Village 11 project. Facilities within both of these zones are planned within Olympic Parkway along the northern boundary of the project. Exhibit 10 provides a map of the existing recycled water facilities in the vicinity of the project.

II.5.4.7.7 Proposed Facilities:

To receive potable water service, the Village 11 project will need to expand the existing 711 Zone and 980 Zone systems. Exhibit 8 graphically shows the location of major water facilities that are existing and planned in the vicinity of the project.

The following descriptions reflect the information contained in the *Overview of Water Service/or Otay Ranch Village 11 SPA* dated November, 2000. A SAMP will be prepared concurrent with the tentative map for the project to identify the sizing and timing of all onsite and offsite water facilities for the project. These water facilities may be modified following the completion of the SAMP.

711 Zone

There are several proposed 711 Zone transmission lines surrounding Village 11 that are included in the Otay Water Districts Capital Improvement Program. These facilities include

20-inch lines in Hunte Parkway and EastLake Parkway and a 24-inch line in Olympic Parkway. Exhibit 8 shows how these facilities will be tied into the District's overall system. The southeastern portion of Village 11 will be served by the 711 Zone. Service to these areas will be provided by connecting to the proposed 20-inch line in Hunte Parkway at several locations, as shown on Exhibit 8 and 9. However, not all facilities shown on Exhibit 8 are required to serve Village 11. The transmission lines in Birch Road and Olympic Parkway are shown to identify the ultimate water system looping for the area. The offsite facilities necessary to serve Village 11 will be determined based on the computer modeling performed during the preparation of the SAMP.

Exhibit 9 provides a map of the proposed onsite water facilities for Village 11. The proposed 10" potable water line crossing the County Water Authority and SDG&E needs to be reviewed and approved by those agencies prior to the approval of the final engineering of the project.

980 Zone

The Otay Water District Capital Improvement Program includes 980 Zone transmission lines adjacent to Village 11 in EastLake Parkway and Olympic Parkway. Exhibit 9 shows how these facilities will be tied into the District's overall system. The northwestern portion of Village 11 will be served by the 980 Zone system. This will be accomplished by making several connections to the proposed transmission lines in EastLake Parkway and Olympic Parkway, as shown on Exhibit 9.

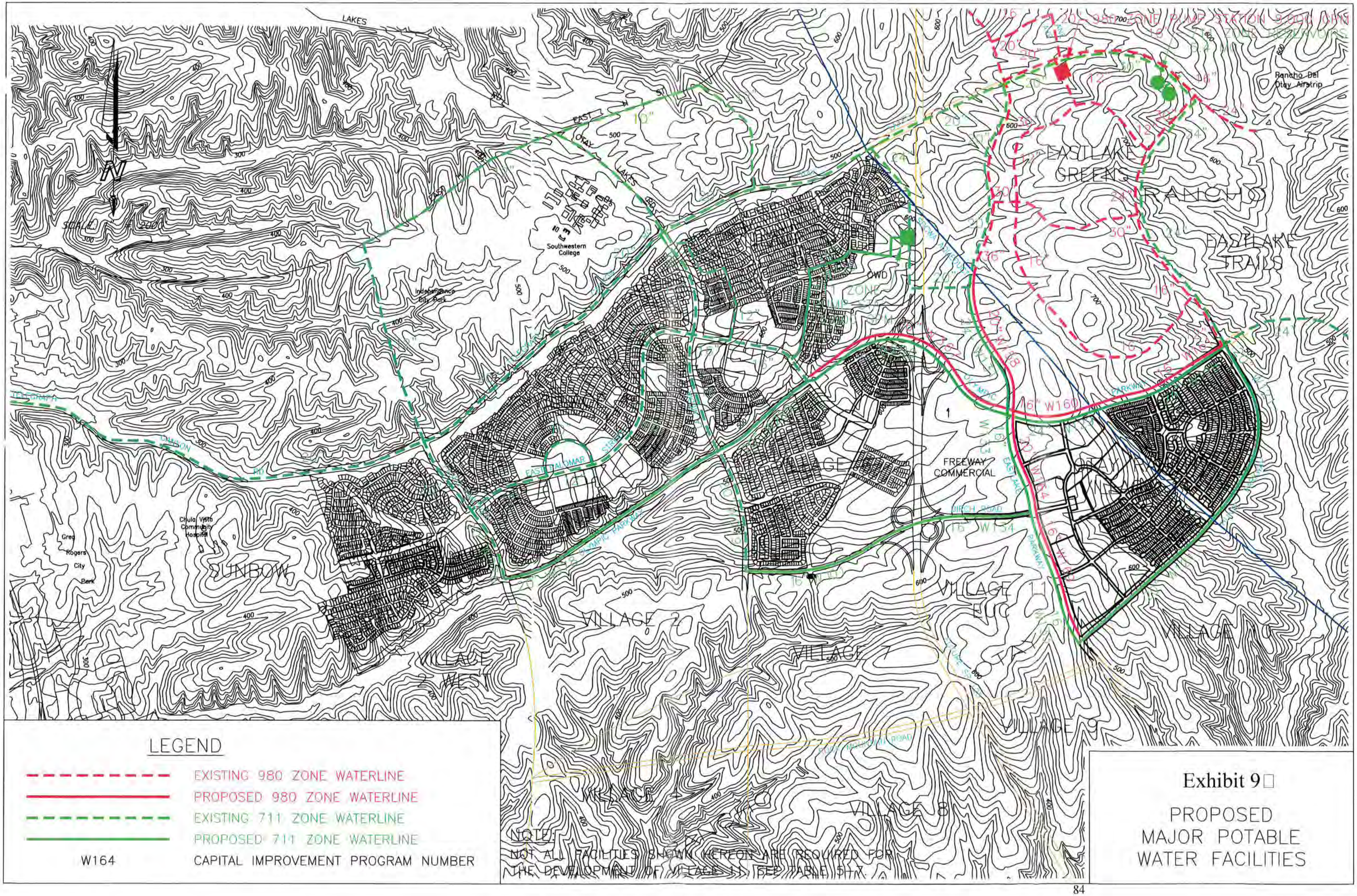
The offsite 24"potable water line located within EastLake Parkway, north of Olympic Parkway is not constructed but required for the Village 11 development. However, until the detailed computer modeling is prepared as part of the SAMP for Village 11, it is not known whether or not the pipeline in EastLake Parkway will be required to serve Village 11. If the pipeline is required, OWD may require the pipeline to be constructed as an_offsite improvement by Village 11.

The proposed 16"potable 980 zone line within EastLake Parkway at Hunte Parkway (W169) is identified in the Otay Water District's Capital Improvement Program. This line will be a requirement of the Village 11 project. Further, this line will designed and constructed to meet the Otay Water District's criteria for establishing water service zones.

Recycled Water

The offsite 16"reclaimed water line located within EastLake Parkway, north of Olympic Parkway is not constructed but required for Village 11 development. Similar to the zone 980 potable water issue, it is not known whether or not the pipeline in EastLake Parkway will be required to serve Village 11 until the detailed computer modeling is prepared as part of the Village 11 SAMP. If the pipeline is required, OWD may require the pipeline to be constructed as an_offsite improvement by Village 11. To the extent that the Water Conservation Plan Study, as noted in Section II.5.4.7.5, affects areas to be irrigated with recycled water, those will be reflected in the SAMP.

The reclaimed water distribution proposes 6" and 8" mains onsite. All proposed lines shall meet the minimum size reclaimed water distribution line allowed by the Otay Water District.



LEGEND

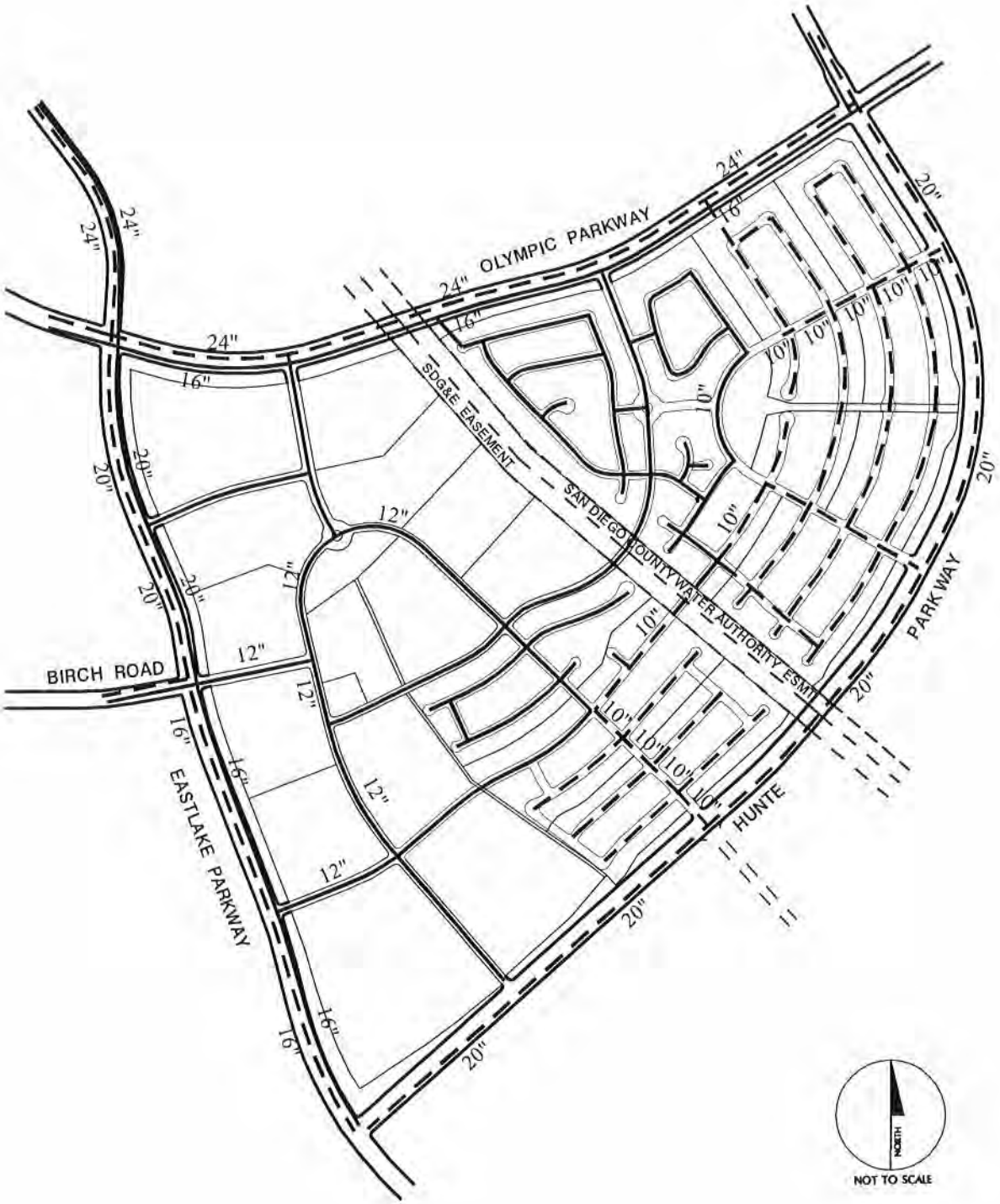
- EXISTING 980 ZONE WATERLINE
- PROPOSED 980 ZONE WATERLINE
- EXISTING 711 ZONE WATERLINE
- PROPOSED 711 ZONE WATERLINE

W164 CAPITAL IMPROVEMENT PROGRAM NUMBER

NOTE:
NOT ALL FACILITIES SHOWN HEREON ARE REQUIRED FOR THE DEVELOPMENT OF VILLAGE 11, SEE TABLE 511X

Exhibit 9□

PROPOSED
MAJOR POTABLE
WATER FACILITIES



LEGEND

711 ZONE

980 ZONE

Exhibit 10
Proposed Water Facilities

LAKES

EAST H (CHULA VISTA)

LAKES

Southwestern College

Independence City Park

OWD

Rancho Del Otay Airstrip

EASTLAKE GREENS

RANCHO

EASTLAKE TRAILS

FREEWAY COMMERCIAL

VILLAGE 11

VILLAGE 10

VILLAGE 9

VILLAGE 8

VILLAGE 7

VILLAGE 6

VILLAGE 2 WEST

VILLAGE 2

SUNBOW

Chula Vista Community Hospital

Greg Rogers City Park

EAST PALOMAR STREET

MAIN STREET

MELROSE AVENUE

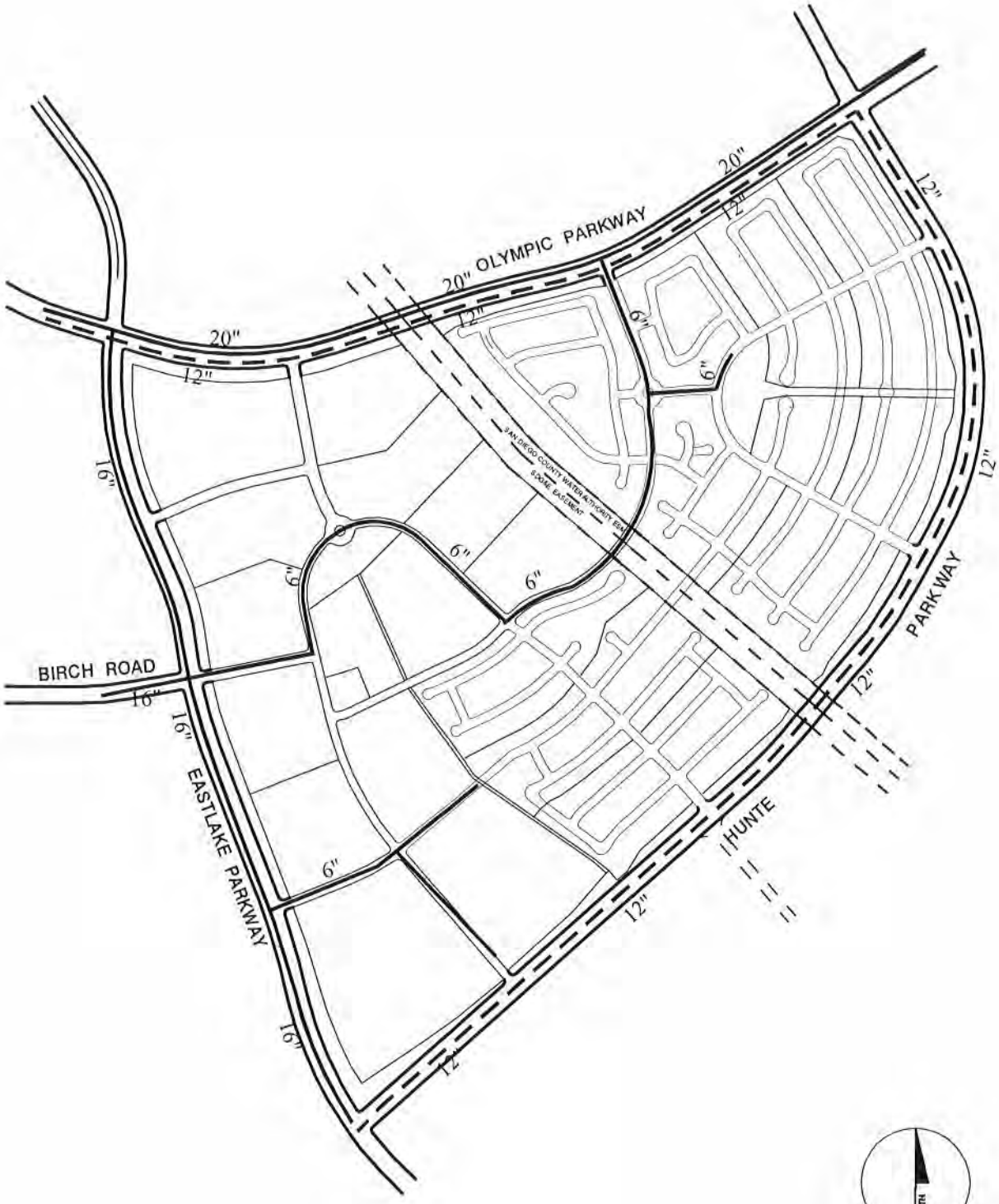
OLYMPIC PARKWAY

LEGEND

- EXISTING 680 ZONE FACILITY
- PROPOSED 680 ZONE FACILITY
- EXISTING 944 ZONE FACILITY
- PROPOSED 944 ZONE FACILITY
- R059 CAPITAL IMPROVEMENT PROGRAM NUMBER

Exhibit 11

MAJOR RECYCLED WATER FACILITIES



LEGEND

680 ZONE

950 ZONE

Exhibit 12

Proposed Recycled Water Facilities

II.5.4.7.8 Financing Water Facilities:

The financing and construction of potable water facilities is provided by two methods:

Capacity Fees:

Otay Water District's Capital Improvement Program (CIP) wherein the District facilitates design and construction of facilities and collects an appropriate share of the cost from developers through collection of capacity fees from water meter purchases. Capital Improvement Projects typically include supply sources, pumping facilities, operational storage, terminal storage, and transmission mains.

The Otay Water District may use bond debt financing from Improvement District 27 to assist in the financing of the District's CIP program. CIP projects are paid for by capacity fees collected on the sale of water meters after building permit issuance. Further, Village 11 is currently within the boundaries of Improvement District 27 and will be required to annex into Improvement District 22.

Exaction:

Wherein the developer designs and constructs facilities, which serve his development only. When complete, the facilities are dedicated to the District. The developer is required to finance and construct water and recycled water facilities and dedicates these facilities to the Otay Water District.

Potable Water Improvement Costs

The total capital cost for potable water facilities will be determined at the time the system is designed and the SAMP is approved. In accordance with District Policy No. 26, the District may provide reimbursement for construction and design costs associated with development of these improvements.

Reclaimed Water Improvement Costs

The total capital cost for recycled water facilities will be determined at the time the system is designed and the SAMP is approved. The District may provide reimbursement for construction and design costs associated with development of these improvements.

II.5.4.7.9 Threshold Compliance and Recommendations

The *Otay Water District Water Resource Master Plan* and the *Overview of Water Service* identify water facilities to be constructed to provide the appropriate level of water service to meet the criteria established within the plans. The Otay Water District agrees in concept with the *Overview,* however, a completed Subarea Master Plan (SAMP) is required for approval by the District prior to the approval of a tentative map for the project. The potable and recycled water systems will be designed at that time and the costs will be identified by phase of development. The applicant shall be responsible for funding the required system improvements. The developer shall request and deliver to the City a service availability letter from the Otay Water District prior to each final map.

II.5.4.8 SEWER

II.5.4.8.1 Threshold Standard

1. Sewage flows and volumes shall not exceed City Engineering Standards.

2. The City will annually provide the City of San Diego Metropolitan Wastewater Department with a 12-18 month development forecast and request confirmation that the projection is within the City's purchased capacity rights and an evaluation of their ability to accommodate the forecast and continuing growth. As an alternative, the City of Chula Vista Public Works Department will gather the necessary data. The information provided to the GMOC shall include the following:

   a. Amount of current capacity now used or committed.

   b. Ability of affected facilities to absorb forecast growth.

   c. Evaluation of funding and site availability for projected new facilities.

   d. Other relevant information.

II.5.4.8.2 Service Analysis

The City of Chula Vista currently purchases capacity for wastewater treatment through the City of San Diego. Chula Vista oversees the construction, maintenance and the operation of the sewer trunk line system. The City Engineer is responsible for reviewing proposed developments and ensuring that the necessary sewer facilities are provided with each development project.

The Sewer Threshold Standard was developed to maintain healthful, sanitary sewer collection and disposal systems for the City of Chula Vista. Individual projects are required to provide necessary improvements consistent with the City of Chula Vista Wastewater Master Plan dated July 1989 and shall comply with all city engineering standards.

Information regarding the existing and recommended sewer facilities is presented in the *Overview of Sewer Service for Village 11 of the Otay Ranch*, dated March, 2001.

II.5.4.8.3 Project Processing Requirements

SPA Plan/Public Facilities Finance Plans

1. Identify phased demands for all sewer trunk lines in conformance with the street improvements and in coordination with the construction of water facilities.
2. Identify location of facilities for onsite and offsite improvements, including reclaimed water facilities in conformance with the *Overview of Sewer Service for Village 11 of the Otay Ranch* prepared by Dexter Wilson Engineering Incorporated dated March, 2001.
3. Provide cost estimates for all facilities and proposed financing responsibilities.
4. Identify financing methods.

II.5.4.8.4 Existing Conditions

Sewer service for Village 11 will be provided by the City of Chula Vista. Village 11 is within both the Salt Creek Drainage Basin and the Poggi Canyon Drainage Basin. The City of Chula Vista does not currently have sewer facilities in these basins to serve the project. This report will provide information on the proposed regional facilities that will provide sewer service to the project.

Salt Creek Basin

The Otay Ranch Village 11 project is almost entirely within the Salt Creek Basin. Future development within this basin will ultimately be served by the Salt Creek Interceptor. Only a small segment of the upstream reaches of this interceptor have been installed. Dudek and Associates, Inc. have prepared a detailed design study for the remainder of the Salt Creek Interceptor for the City of Chula Vista. Design drawings for the Salt Creek Interceptor are currently being prepared.

Poggi Canyon Basin

The northwest corner of the Village 11 project is within the Poggi Canyon Basin. The existing Poggi Canyon Interceptor has been extended easterly in Orange Avenue to Brandywine Avenue, approximately 5 miles west of the Village 11 Project. Plans have been prepared for the extension of the Poggi Canyon Interceptor in Olympic Parkway to future west side of State Route 125. Flow from the Poggi Canyon Interceptor will ultimately convey sewage to Reach 9B of the proposed Salt Creek Interceptor. The Poggi Canyon Interceptor west of future State Route 125 and Reach 9B of the Salt Creek Interceptor are expected to be constructed well in advance of development on the Village 11 project.

II.5.4.8.5 Adequacy Analysis

The wastewater master plan evaluates sewer facilities from two aspects, the current and future adequacy of trunk sewers and the future wastewater treatment facilities.

Wastewater Treatment

Current Chula Vista average daily wastewater flow is approximately 14.262 million gallons per day (mgd). The City's allocation is 19.843 mgd resulting in a capacity surplus of 5.581 mgd.

The Wilson Report uses the following sewage generation factors:

1. Single Family Residential	265 gpd/unit
2. Multi-Family Residential	199 gpd/unit
3. Commercial	2,500 gpd/acre
4. Industrial	2,500 gpd/acre
5. Community Purpose Facilities	2,500 gpd/acre
6. Elementary School	15 gpcd (Gallons per Capita per Day 800 students)
7. Junior High School	20 gpcd (assume 2,400 students)
8. Parks	500 gpd/acre

The Development Phasing Forecast Summary (to 2005), as shown on Table I lists 14,258 residential dwelling units (includes Village 11), 161.4 acres of industrial, and 53.2 acres of commercial in various categories of entitlement through the year 2005. Applying the per day wastewater factors for each land use generates approximately 4,314,870 gallons per day of wastewater associated with the forecasted development category. This amount associated with forecasted development reduces the capacity surplus from 5.581 to 1.266 mgd (5,581,000-4,314,870).

Table I
Sewer capacity used by forecasted development

Land Use Type	2005 Forecast	Generation Factor	Gallons per Day
Residential	14,258 DU	265 gpd/unit	3,778,370
Commercial	53.2 Acres	2,500 gpd/unit	133,000
Industrial	161.4 Acres	2,500 gpd/unit	403,500
Total used by Forecasted Development			**4,314,870**
Total remaining sewer capacity			**1,266,130**

The projected flows from the Otay Ranch Village 11 project are shown in Table I.1.

Table I.1
Sewer Capacity used by Otay Ranch Village 11

Land Use Type	DU's or Acres	Generation Factor	Gallons per day
SFR Units[16]	1,311 DU	265 gpd/du	347,415
MFR Units[17]	993 DU	199 gpd/du	197,607
Commercial	10.0 Acres	2,500 gpd/acre	25,000
CPF	5.5 Acres	2,500 gpd/acre	13,750
Elementary School	11.0 Acres	15 gpcd (assume 800 students)	12,000
Junior High School	25.6 Acres	20 gpcd (assume 1,400 students)	28,000
Neighborhood Park/Town Square (P1 & P4)	9.9 Acres	500 gpd/acre	4,950
Private O.S. (P2 & P3)	6.8 Acres	500 gpd/acre	3,400
Total			**632,122**

The construction of new sewer trunk lines must be phased with the construction of streets. The wastewater treatment requirements and sewer trunk line system are currently meeting the threshold standard.

[16] Includes Single Family Detached (R-1 through R-16) & Small-Lot Single Family Detached (R-17, R-20 & R-23).

[17] Includes Townhouses, Flats & Apartments (R-18, R-19, R-21, R-22, R-24, R-25 & MU).

Trunk Sewers

The majority of the project is within the Salt Creek drainage basin and will be served by connecting into the proposed Salt Creek Interceptor. A small portion of the project is within the Poggi Canyon natural drainage basin, but the developer is proposing to grade in such a way that it can also drain by gravity to the Salt Creek Interceptor.

The extension of the Poggi Canyon Interceptor has been designed in Olympic Parkway to within approximately 1,500 feet of the Village 11 project. These improvements are expected to be constructed prior to development on the Village 11 project. The Salt Creek Interceptor requires the design and construction of approximately 10 miles of sewer piping before service can be provided to the Village 11 project. Design of the Salt Creek Interceptor has begun, and the extension of this interceptor will need to be closely coordinated with projected development in Village 11.

Presently, the Village 11 project does not have any nearby sewer collection systems to provide sewer services. Village 11 cannot be built until the Salt Creek Trunk Sewer and Poggi Canyon Trunk Sewer are able to provide sewer services. Should the construction of the Salt Creek Interceptor be delayed, there may be alternatives for diverting sewage from the Salt Creek basin within Village 11 until the Salt Creek Interceptor has been constructed. The alternatives are discussed in the following section.

Sewer Diversion Alternatives

With the exception of a small area in the northwest corner of the project, Village 11 is entirely within the Salt Creek natural drainage basin. Therefore, if the Salt Creek Interceptor has not yet been constructed and the development proceeds, sewer service to this area will require a diversion system to pump flows out of basin. This alternative, if elected by the developer and approved by the City, shall be consistent with City Council policy #570-03. Exhibit 17 provides the location of the Telegraph Canyon Interceptor and Poggi Canyon Interceptor relative to the Village 11 project. Alternatives for diverting sewage from the Salt Creek drainage basin within Village 11 will involve the Poggi Canyon Interceptor. Preliminary studies have been prepared by Wilson Engineering to evaluate capacity and provide recommended improvements. A brief discussion of the Poggi Canyon alternative for diverting sewage to this facility is provided below.

Poggi Canyon Basin: Table I. 2, indicates that the extension of the Poggi Canyon Interceptor is being designed to handle a significant amount of future development, including approximately 391 EDUs from Village 11. Since not all of this development will occur within the next few years, this portion of the Poggi Canyon Interceptor will have excess capacity to serve additional units from Village 11 on an interim basis. Some of the existing sections of the Poggi Canyon Interceptor will require replacement to accommodate ultimate flows from the basin. These improvements would be phased based on flow monitoring of the line. Funding of these improvements is via fees collected from new development in the Poggi Canyon Basin.

TABLE I.2 Poggi Canyon Drainage Basin[18] Summary Of EDUs	
Development	**EDUs**
Existing	1,794.5
Sunbow II	1,869.7
Gerhardt	37.0
Otay Ranch GDP	
Village 1	1,201.1
Village 6	2,098.3
Village 7	289.7
Village 11	391.4
Village 12	839.3
Village 1 West	210.0
Subtotal Otay Ranch GDP	5,029.8
Otay Ranch Village 1	1,219.5
Otay Ranch Village 5	442.5
McMillin	1,006.3
EastLake Development	2,106.0
TOTAL	**13,505.3**

The aforementioned diversion alternatives are based on Wilson Engineering's preliminary evaluation of the system. Actual implementation of one of these alternatives would require a more detailed analysis and the approval by the City of Chula Vista.

II.5.4.8.6 Recommended Sewerage Facilities

Sewer facility improvements required to serve the Village 11 project include 8-inch and 10-inch onsite gravity sewer lines and contributions for the construction of the Salt Creek Interceptor and Poggi Canyon Interceptor. The sizing of onsite sewer lines must be verified during the improvement plan preparation process when slopes and alignments for sewer lines have been established. This PFFP provides a discussion of the impact fees to be paid and the onsite facilities that are necessary to serve the Village 11 project. Exhibit 13 shows the proposed major sewer facilities that will serve the project.

II.5.4.8.6.1 Village 11 Improvements

On-site Improvements

All onsite sewer lines internal to the Villages 11 project have been sized based on preliminary street grades and sewer alignments. This sizing should be verified once pipe slopes have been better defined. Exhibit 14 provides the recommended sewer line sizing for the project. As shown, 8-inch and 10-inch gravity sewers are recommended.

[18] From July 1997 Poggi Canyon Basin Gravity Sewer Basin Plan

Off-site Improvements

The Village 11 project is planned to be sewered via the proposed Salt Creek Interceptor. Off-site sewer connection improvements anticipated for Salt Creek are developer-constructed laterals to connect to the Salt Creek Main Interceptor. However, if the applicant elects to divert sewer into the Poggi Canyon Interceptor there will be off-site improvements. These improvements will need to be discussed in an amendment to this PFFP.

II.5.4.8.6.2 Village 11 Phasing

Project Phasing

The Village 11 project is expected to develop in three major phases. Exhibit 14 illustrates the proposed phasing for the project. Table I.3 provides a summary of development by phase.

TABLE I.3
Otay Ranch Village 11
Proposed Project Phasing

Phase	Residential			Year
	SF Units	MF Units	EDUs[19]	
1	335	197	483	2003-2004
2	328	701	854	2004-2006
3	451	292	670	2006-2008

Salt Creek Interceptor Phasing

The entire Village 11 project will be served by gravity sewers and connected to the proposed Salt Creek Interceptor. The Salt Creek Interceptor is in the design phase and has been separated into three major reaches. Exhibit 13 graphically shows the reach descriptions and Table I.4 summarizes the proposed timing for each major reach of piping.

TABLE I.4
Salt Creek Interceptor
Proposed Completion Schedule

Description	Estimated Completion of Construction
Reach 9B	January 2002
Reach 9A	April 2002
Reaches 3-8	January 2003

In comparing Tables I.3 and I.4, all reaches of the Salt Creek Interceptor are scheduled to be completed in January 2003 and the first phase of Village 11 development is anticipated to come on line sometime in 2003. Therefore if both projects maintain their current schedule, sewer facilities will be in place to serve Village 11 at the time it begins to develop.

The on-site phasing of Village 11 is illustrated by Exhibit 14. The western portion of phases 1 and 2 will be served by a temporary sewer line to be built adjacent to the SDG&E easement. The final revision of the sewer study will depict a permanent sewer line in the road along the southern boundary of the CPF and S-1 sites to serve R-25, CPF and the MU. This line will initially connect to the temporary line adjacent to the SDG&E easement. When phase 3 is built, the line will be connected to the permanent sewer in the residential promenade street at the intersection between S-1 and P-1.

[19] Based on 0.75 EDU per Multi-family unit.

II.5.4.8.6.3 Temporary Diversion into the Poggi Canyon Interceptor

If, for any reason, development within Village 11 will be completed prior to the construction of the Salt Creek Interceptor, the project may be served, if approved by the city, by temporarily diverting sewage to the Poggi Canyon Interceptor. Wilson Engineering evaluated the required Village 11 improvements and downstream effects of temporarily diverting sewage from the entire first phase of the project. Exhibit 17 shows the location of existing and proposed facilities under this diversion alternative. The developer shall be responsible for all costs associated with the construction, operation and maintenance of sewer diversion facilities.

Temporary Diversion Facilities: To serve the entire phase 1 portion of Village 11, two temporary onsite sewer lift stations and force main piping to convey flow to the intersection of Olympic Parkway and Eastlake Parkway would be required. These lift stations would be required to comply with City of Chula Vista Policy Number 570-03. From this location, the preliminary grading plans for Olympic Parkway (prepared by Kimley-Horn and Associates) indicate that a gravity sewer line could be constructed to convey sewage westerly to the Poggi Canyon Interceptor. If a gravity sewer line is extended east of future State Route 125, this section of sewer line would be constructed along with the Olympic Parkway improvements and funded entirely by the developer(s) that utilize the line.

Temporary Diversion Feasibility: Wilson Engineering prepared the Poggi Canyon Basin Gravity Sewer Basin Plan for the City of Chula Vista in July 1997. This study identifies future developments within the Poggi Canyon gravity sewer basin. Table I.2 summarizes the equivalent dwelling units (EDUs) that were projected from each of the future developments within the Poggi Canyon natural drainage basin. Further, Table I.2, indicates that 391.4 EDUs from the Village 11 project are in the basin.

The City of Chula Vista Engineering Staff prepared an analysis that evaluated the capacity for future development within the Poggi Canyon Basin, as well as the temporary diversion of flows from outside the basin. The results of the analysis are summarized in a February 19, 2001 memo. The memo indicates there are currently 4,276 EDUs of remaining capacity in the Poggi Canyon system. Of this remaining capacity, there are currently 3,329 entitled or approved EDUs within the Poggi Basin, leaving 947 EDUs capacity for future projects that do not already have entitlements.

TABLE I.5
Poggi Canyon Trunk Sewer Capacity Analysis

Condition	Total Capacity, EDUs	Existing EDUs	Entitled Developmet EDUs	EastLake[20] Greens Existing EDUs	EastLake Land Swap[21]	Remaining Capacity EDUs
Existing	6,176	1,900	3,329	--	--	947
Reach 9B Complete	11,104	1,900	3,329	1,165	--	4,710
I-805 Upgrade Complete	13,505	1,900	3,329	1,165	--	7,111
La Media-East Palomar Oversizing Complete[22]	13,505	1,900	3,329	1,165	--	7,111

Source: Overview of Sewer Service for Village 11 of the Otay Ranch, Dexter Wilson Engineering, March, 2001.

[20] Existing flows within Eastlake that are being pumped to the Telegraph Canyon Interceptor.
[21] Undeveloped.
[22] Oversizing would allow approximately 3,650 EDUs from outside the Poggi Basin to be accommodated.

The City has a number of planned capacity improvements that will increase the available capacity in the Poggi Canyon System. These improvements include Reach 9B of the Salt Creek Interceptor, upgrading the existing sewer line where it crosses Interstate 805, and over sizing a portion of the Poggi Canyon Trunk Sewer from 15-inches to 18-inches from La Media Road to East Palomar Street. Table I.5 summarizes the capacity thresholds associated with these planned upgrades.

Through the city's planned upgrades to the system, the Poggi Canyon Trunk Sewer can accommodate all gravity flows within the basin as well as approximately 3,650 EDUs from outside the basin. This does not provide adequate capacity to accommodate buildout development of Village 11. However, it is anticipated that the Salt Creek Interceptor will be operational well in advance of the buildout of the project.

II.5.4.8.7 Financing Sewerage Facilities

To fund the necessary improvements to the Salt Creek Interceptor and Poggi Canyon Interceptor, development impact fees have been established by the City of Chula Vista.

Salt Creek Basin Impact Fees

The November 1994 Salt Creek Basin Study was prepared by Wilson Engineering to establish a fee to fund future improvements to the Salt Creek Interceptor System. This fee is required to be paid by all future developments within the Salt Creek Drainage Basin to fund improvements required to serve ultimate development within the drainage basin. City of Chula Vista Ordinance Number 2617 established the fee to be paid for future development within the Salt Creek Basin that connect into the existing system. Table I.6 summarizes the fees to be paid by each land use type.

TABLE I.6
Salt Creek Basin Impact Fees

Land Use	Fee
Single Family Residential (Detached)	$284/unit
Multi-Family Residential (Attached)[23]	$213/unit
Commercial	$2,840/acre
Community Purpose	$2,840/acre
Schools	$1,136/acre
Park	$568/acre

Table I.7 provides a breakdown of the projected Salt Creek fees to be generated by Village 11 is $656,550. These fees will be collected at the time building permits are issued.

[23] Multi-Family Residential includes attached housing products such as Townhouses, Flats and Apartments.

Table I.7 Projected Village 11 Salt Creek Impact Fees					
Phase	**Land Use**	**Acres**	**DU's**	**Fee**	**Projected Fee**
1	Single Family Detached	64.7	335	$284/unit	$95,140
	Multi-Family Attached	27.4	197	$213/unit	$41,961
	Neighborhood Park (P-1)	8.9		$568/acre	$5,055
	Private Recreation Facility (P-2)	3.8		$568/acre	$2,158
	Subtotal	**95.9**	**532**		**$144,314**
2	Single Family Detached	71.1	328	$284/unit	$93,152
	Multi-Family Attached	29.1	386	$213/unit	$82,218
	Private Recreation Facility (P-3)	3.0		$568/acre	$1,704
	Town Square (P-4)	1.0		$568/acre	$568
	Elementary School	11.0		$1,136/acre	$12,496
	Mixed Use/Commercial	10.0		$2840/acre	$28,400
	Mixed Use/Residential	10.0	315	$213/unit	$67,095
	Community Purpose	5.5	-	$2840/acre	$15,620
	Subtotal	**149.6**	**1,029**		**$301,253**
3	Single-Family Detached	78.5	333	$284/unit	$94,572
	Multi-Family Attached	24.1	410	$213/unit	$87,330
	Junior High School	25.6		$1,136/acre	$29,081
	Subtotal	**128.2**	**743**		**$210,983**
	Streets & Open Space	**115.4**			
Total		**489.1***	**2,304**		**$656,550**

Alternative Poggi Canyon Basin Impact Fees

Interim pumping of flows into Poggi Canyon will only be needed if the Salt Creek Interceptor is not operational in time to serve Village 11. This alternative, if proposed by the developer, must be consistent with City Council policy. If the Village 11 project does divert sewage to Poggi Canyon, the project shall participate in the funding of improvements within the basin. The current impact fee based on the July 1997 Poggi Canyon Basin Study and City of Chula Vista Ordinance 2716 is $400 per EDU (see Table I.8). If the Salt Creek Interceptor project is delayed such that it will not be in place prior to Phase 2 development on the Village 11 project, this PFFP will be amended to outline the facilities required, available capacity associated with diverting additional flows to the Poggi Canyon Basin, financing mechanism and calculate the required fees.

There is currently no financing mechanism for improvements to the system to permit pumped flows from Village 11 into Poggi Canyon. The pumping of flows into Poggi Canyon would require construction of additional improvements. A DIF financing mechanism or developer funded revenue source would be necessary to construct improvements. If a DIF was implemented, this fee would likely be levied on users who propose to temporarily divert out-of-basin flows into Poggi Canyon. Revenues generated would likely be earmarked for construction of improvements, which increase capacity to accommodate the pumped flows. A financing mechanism will require a study which is currently beyond the scope of the PFFP.

The Poggi Canyon Interceptor currently connects into the Date-Faivre Line at the intersection of Palm Avenue and Valley Avenue. Ultimately, however, it is expected that the Poggi Canyon Interceptor will tie into Reach 9 of the future Salt Creek Interceptor. This future interceptor will collect flows from the Salt Creek Basin and then follow the Otay River Valley to the Metropolitan Sewer Interceptor.

The Poggi Canyon fee will fund the extension of the Poggi Canyon Interceptor to the eastern boundary of Otay Ranch Village 5. An additional 1,500 feet of gravity sewer line will be required to convey sewage from Village 11 to this location. Exhibits 13 and 14 provide the location of these proposed facilities. However, at this time, the Village 11 project is not expected to connect to the Poggi Canyon Interceptor.

Table I.8
Poggi Canyon Basin Impact Fees

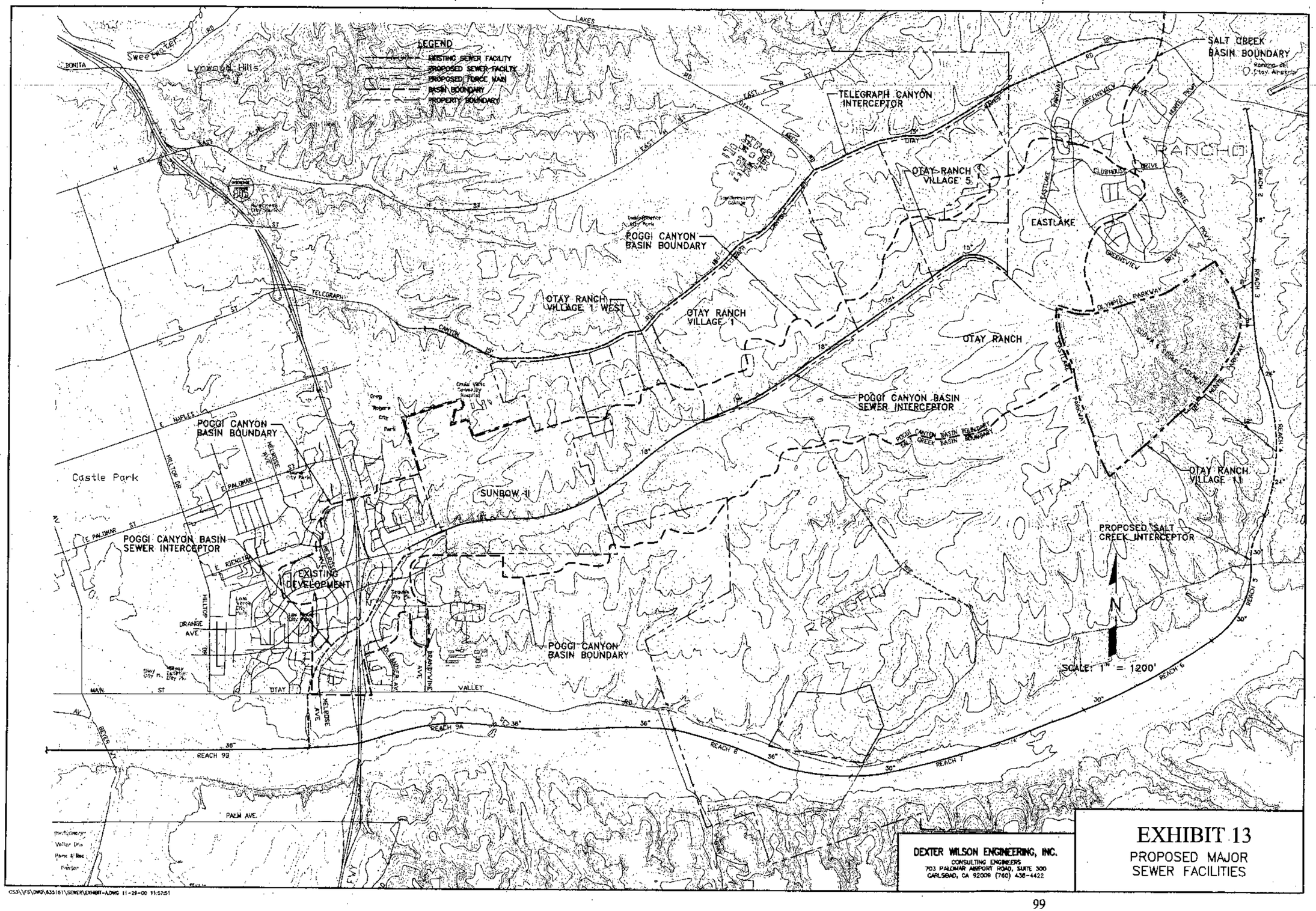
Land Use	Fee
Single Family Residential	$400/unit
Multi-Family Residential	$300/unit
Commercial	$3,572/acre
Community Purpose	$3,572/acre
Elementary School	$12,856/site
Junior High School	$40,000/site
High School	$68,572/site
Park	$716/site

II.5.4.8.8 Threshold Compliance and Recommendations

The applicant for the Village 11 project shall:

1. Underwrite the cost of all studies and reports required to support the addition of sewer flows to existing lines, including the study required by Council Policy 570-03.
2. Assume the capital cost of all sewer lines, pump stations, and connections identified herein.
3. Pay all current sewer fees required of the City of Chula Vista.
4. Enter into an agreement with the City of Chula Vista for the cost of maintenance and operation of the pump stations if the applicant proceeds with the construction of the pump stations.
5. Comply with all other conditions stated in Council Policy 570-03.
6. Comply with Section 3-303 of the City of Chula Vista Subdivision Manual.
7. Construct off-site connections to the Salt Creek Main Interceptor.
8. Construct entire temporary pump station with overflow basin within land owned by the developer (outside the public right of ways, parks, etc.).
9. Bond for the demolition of all temporary sewer facilities.

Facilities to accommodate sewer flows have been identified in the Wilson reports. The construction of new sewer lines must be phased in or before the construction of streets.



DEXTER WILSON ENGINEERING, INC.
CONSULTING ENGINEERS
703 PALOMAR AIRPORT ROAD, SUITE 300
CARLSBAD, CA 92008 (760) 438-4422

EXHIBIT 13

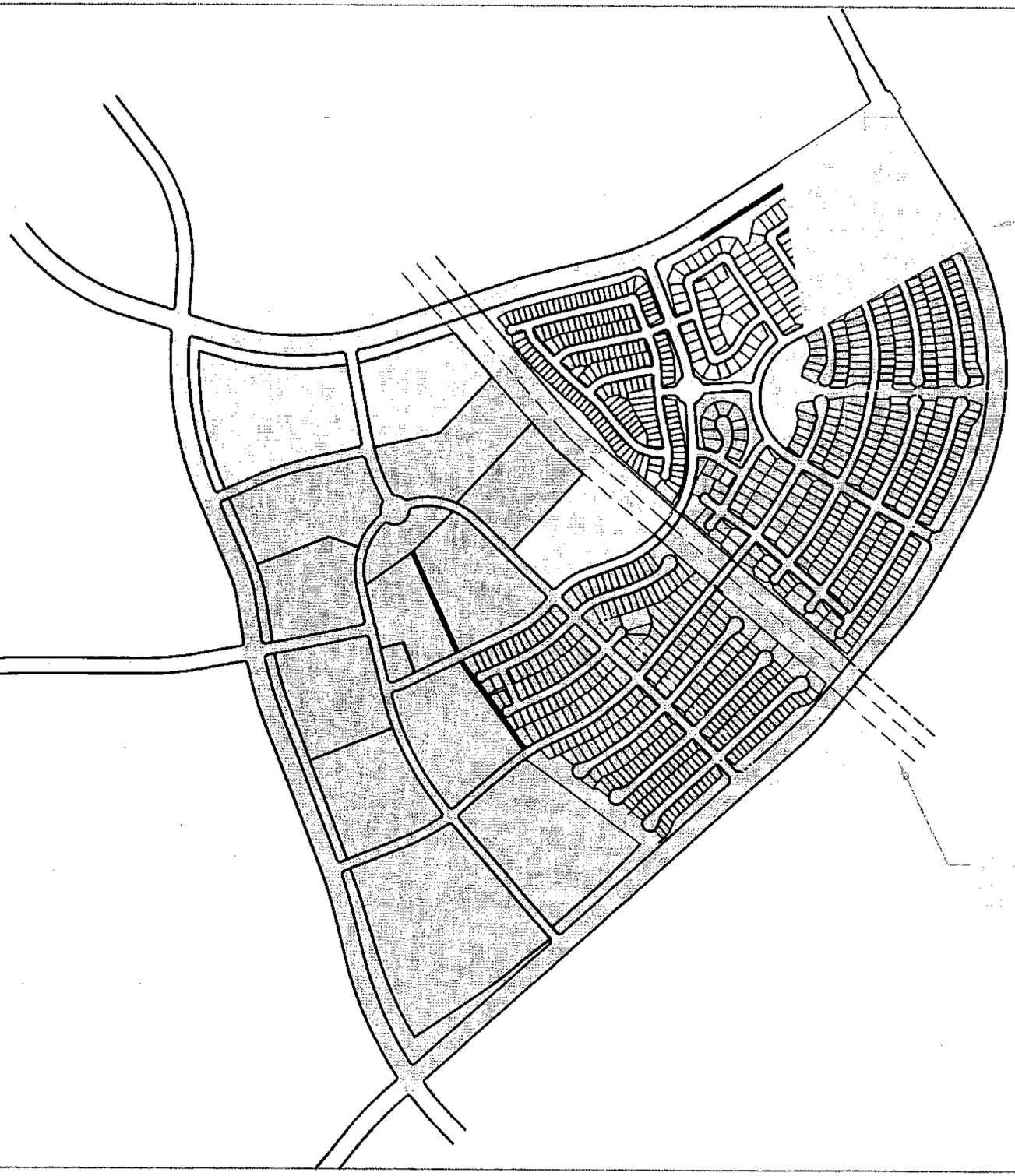
PROPOSED MAJOR SEWER FACILITIES

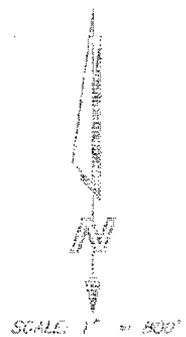
C:\53\VFS\DWG\633161\SEWER\EXHIBIT-A.DWG 11-29-00 11:57:51

NOTE: ALL GRAVITY SEWER LINES ARE RECOMENDED AS 8-INCH UNLESS OTHERWISE NOTED.

Exhibit 14

PROPOSED SEWER PHASING





SCALE: 1" = 800'

Exhibit 15

PROPOSED PHASING

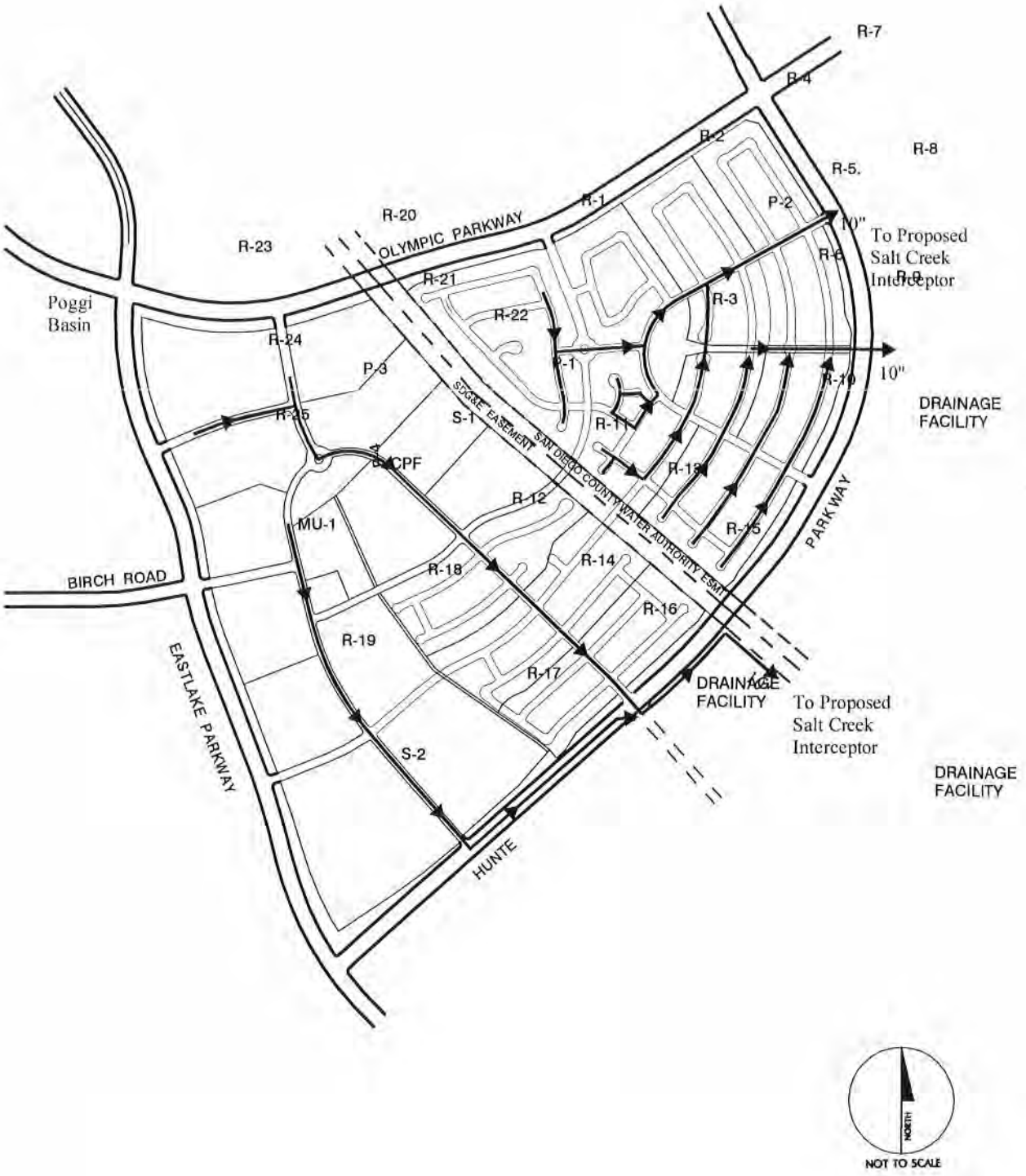
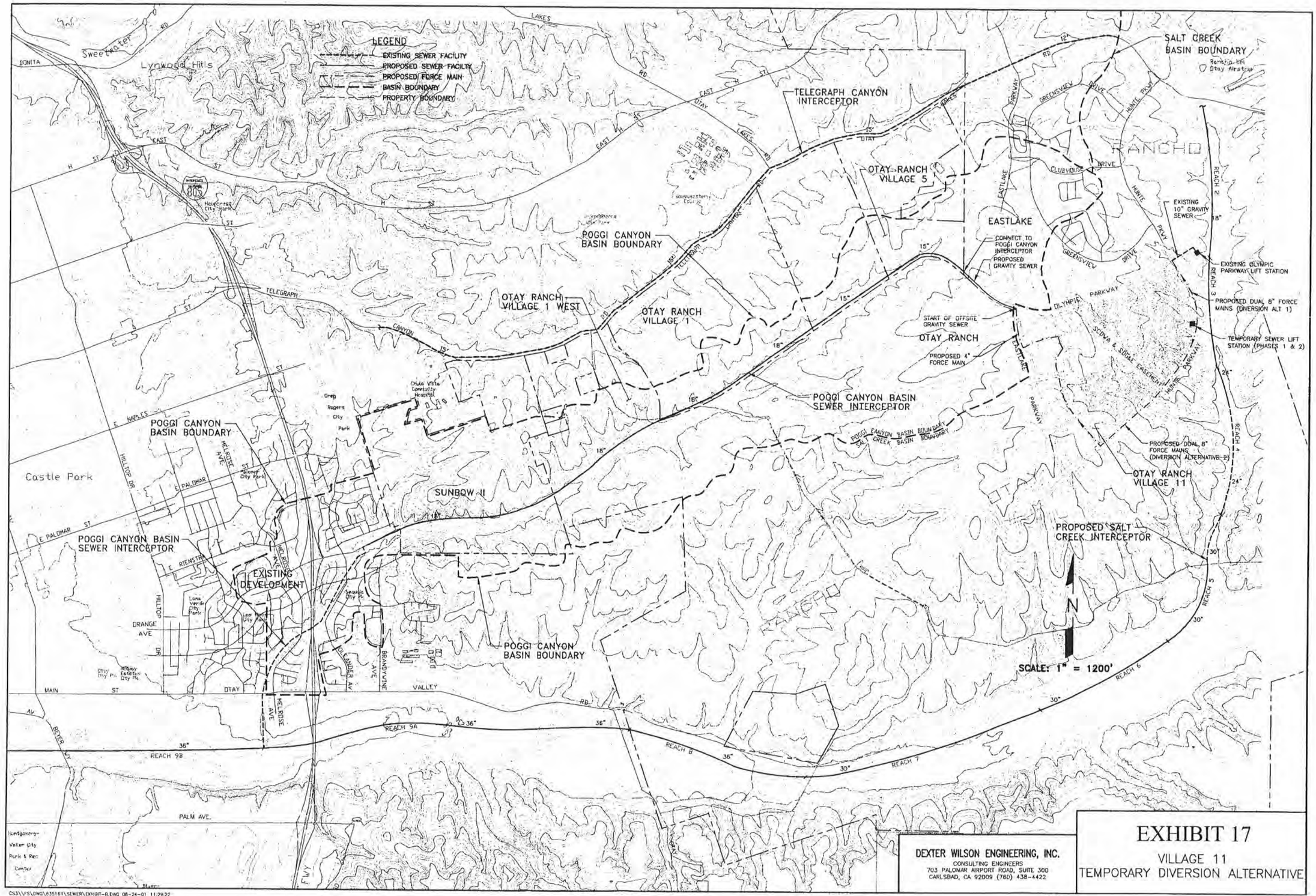


Exhibit 16
Proposed Onsite Sewer



DEXTER WILSON ENGINEERING, INC.
CONSULTING ENGINEERS
703 PALOMAR AIRPORT ROAD, SUITE 300
CARLSBAD, CA 92009 (760) 438-4422

EXHIBIT 17

VILLAGE 11
TEMPORARY DIVERSION ALTERNATIVE

CS3\\VS\DWG\6351611\SEWER\EXHIBIT-B.DWG 08-24-01 11:29:22

II.5.4.9 DRAINAGE

II.5.4.9.1 Threshold Standard

1. Storm water flows and volumes shall not exceed City Engineering Standards.

2. The GMOC annually reviews the performance of the City's storm drain system to determine its ability to meet the City's goals and objectives.

II.5.4.9.2 Service Analysis

The City of Chula Vista Public Works Department is responsible for ensuring that safe and efficient storm water drainage systems are provided concurrent with development in order to protect the residents and property within the city. City staff is required to review individual projects to ensure that improvements are provided which are consistent with the drainage master plan(s) and that the project complies with all City engineering drainage standards.

The City of Chula Vista Public Facilities Plan Flood Control Summary Report, dated March 1989 (Phase II) provides details for the city planned drainage facilities.

Otay Ranch Village 11 drainage improvements are identified in the *Master Drainage Study for Otay Ranch Village 11* prepared by Hunsaker & Associates January 25, 2001 and the *Addendum to Master Drainage Study for Otay Ranch Village 11* prepared by Hunsaker & Associates February 27, 2001.

II.5.4.9.3 Project Processing Requirements

SPA Plan/Public Facilities Finance Plans

1. Identify phased demands.
2. Identify locations of facilities for onsite and offsite improvements.
3. Provide cost estimates.
4. Identify financing methods.

II.5.4.9.4 Existing Conditions

The *City of Chula Vista Public Facilities Plan, Flood Control Summary Report,* March, 1989, shows fifteen major drainage basins in Chula Vista. These drainage basin boundaries were determined by existing topography, drainage conditions and land uses. Four of these are essentially developed and not expected to have significant changes in runoff. 11 drainage basins are east of I-805 with one of the basins, Long Canyon, is mostly developed to the predicted densities in Scenario 4 of the general plan. Only the remaining ten basins will experience major development and the subsequent changes in drainage conditions.

The City's Drainage Master Plan analyzed current and future requirements for drainage facilities. The report details three alternative solutions for drainage in each basin. Because drainage facilities are directly related to the type and location of future development, it is not

possible to determine which specific improvements will be required until the development project is presented and reviewed by staff.

Village 11 is located within the Otay Hydrographic Unit, one of 11 hydrographic units in the San Diego Drainage Basin (Regional Water Quality Control Board, 1975). The majority of the Village 11 project area drains directly into Salt Creek, within two watersheds. The Existing Conditions Map (Exhibit 19) illustrates the two major watersheds flowing from Village 11 to Salt Creek, Watershed D and Watershed E. Salt Creek flows in a southerly direction near Village 11's eastern boundary en route to its confluence with the Otay River. A small portion of the Village 11 site (36 acres in the northwest corner) currently drains to Poggi Canyon while 29 acres in the southwest corner currently drains directly to the Otay River. Salt Creek enters the Village 11 site at the existing Olympic Parkway culvert. Upstream, Salt Creek flows through the Rolling Hills Ranch and the EastLake development before entering Village 11.

At the downstream outlet of Salt Creek from Village 11, the confluence of Salt Creek and Watershed E (see Existing Conditions Map on Exhibit 19) the total contributing watershed has a drainage area of 2,906 acres in existing conditions. The "Addendum to Detention Study of Salt Creek at Orange Avenue," prepared by Rick Engineering in April 1998, quantifies 100-year flow rates through the EastLake Property. At the downstream end of the study, two detention basins were modeled in series (just upstream of Olympic Parkway). The proposed detention basin of Otay Lakes Road was not modeled as part of the Rick Engineering study.

Downstream of Olympic Parkway, Salt Creek flows through the Village 11 site. Runoff from the Olympic Training Center, EastLake Vistas and McMillin Property also drain to Salt Creek in this area of the watershed.

Two flows enter the Otay Ranch Village 11 site near the SDG&E easement that bisects the site. Pipes conveying flows from the EastLake Greens area are considered permanent. No increases in flows are assumed in this analysis. The two offsite flows are:

- 50-year offsite flow of 43 cfs in an existing 30-inch RCP from EastLake South Greens Unit 10 (data taken from hydrology report prepared by SB&O in March of 1998). This runoff total assumes full development upstream.
- 50-year offsite flow of 40 cfs in a proposed 36-inch RCP under Olympic Parkway (data taken from City of Chula Vista Drawing No. 97-23).

Table J summarizes the Hunsaker study's HEC-1 results of the existing condition analysis for Salt Creek. In this analysis, Hunsaker used the existing conditions that correspond to full development of the Salt Creek watershed upstream of Village 11 and no development in Village 11. Full development is also assumed for the EastLake Vistas, Olympic Training Center and McMillin Property downstream of Olympic Parkway (including diverted areas from lower Otay Reservoir). A computational time step of 1 minute was used for this analysis. Results are listed for Antecedent Moisture Conditions (AMC) 2 and 2.5.

In the existing conditions, the Village 11 site consists of grazed land[24]. Existing conditions consider the existing EastLake Greens development draining through Watershed E.

[24] The corresponding runoff curve number was determined to be 84 for AMC = 2 and 88.5 for AMC = 2.5.

TABLE J Summary of Existing 100-Year Flows in Salt Creek			
	Drainage Area (acres)	**AMC=2 100-Year Peak Flow (cfs)**	**AMC = 2.5 100-Year Peak Flow (cfs)**
Olympic Parkway	1,760	1,597	1,597
Confluence of Salt Creek and Watershed D	2,170	1,756	1,800
Confluence of Salt Creek and Watershed E	2,905	2,370	2,623

Source: Master Drainage Study for Otay Ranch Village 11, Hunsaker & Associates, February 27, 2001.

For the Salt Creek drainage study, peak flow rates for existing and developed conditions were generated using the HEC-1 computer program. Peak flow rates and volumes were calculated based on a 6-hour, Type B rainfall distribution and the 100-year return interval. Since runoff from the Village 11 area discharges directly to Salt Creek, only the 100-year design storm was considered in this analysis. It is assumed that all downstream facilities on Salt Creek and the Otay River are sized for the 100-year design storm.

To facilitate the HEC-1 analysis, the Salt Creek watershed was divided into five main watersheds (see Exhibit 17). In developed conditions, these basins were further subdivided to distinguish areas of development from natural slope areas.

- **Watershed A** – *Runoff from Rolling Hills Ranch Development*
- **Watershed B** - *Runoff from EastLake Woods area between Rolling Hills Ranch and Otay Lakes Road*
- **Watershed C** – *Runoff from EastLake Trails, Greens and Vistas between Otay Lakes Road and Olympic Parkway*
- **Watershed D** - *Runoff from Otay Ranch Village 11 east of SDG&E Easement, Olympic Training Center and EastLake Vistas.*
- **Watershed E** - *Runoff from Otay Ranch Village 11 west of SDG&E Easement, Olympic Training Center, McMillin Property and EastLake Greens.*

II.5.4.9.5 Proposed Facilities

Development of the Otay Ranch Village 11 site will include the construction of single-family residential homes, multi-family units, commercial sites, and major traffic arterials. As a boundary condition, the 100-year developed peak flow rate at the confluence of Salt Creek and Tributary E cannot exceed the existing condition 100-year flow at the same location.

Table J.1 summarizes the effects of the increased impervious surfaces associated with the Otay Ranch Village 11 development assuming no detention basin. This includes the inclusion of a channel routing reach between the Sub-basin E1 outlet and Salt Creek.

TABLE J.1 Summary of Developed 100-Year Flows in Salt Creek (With No Detention)			
	Drainage Area (acres)	AMC=2 100-Year Peak Flow (cfs)	AMC = 2.5 100-Year Peak Flow (cfs)
Olympic Parkway	1,760	1,597	1,597
Confluence of Salt Creek and Watershed D	2,163	1,730	1,755
Confluence of Salt Creek and Watershed E	2,946	2,317	2,580

Source: Master Drainage Study for Otay Ranch Village 11, Hunsaker & Associates, January 25, 2001.

As shown in Table J.1, unmitigated development of the site would reduce the 100-year peak runoff rate at the downstream end of the analysis by 53 cfs for Antecedent Moisture Condition 2 and by 43 cfs for Antecedent Moisture Condition 2.5. Thus, no detention basins are necessary. In this situation, it is an advantage to allow the peak onsite flow to drain to Salt Creek quickly. Construction of detention basins would delay the peak flow through Otay Ranch Village 11 site, thus making the routed peak coincide with the peak hydrograph flow from the upstream Salt Creek hydrograph. Therefore, no detention basins are required.

Surface Water Quality

The increase in developable area would result in an increase in the amount of runoff during storms due to the overall increase in impervious surface areas. Based on the amount of additional development area, the surface runoff in a 100-year storm event would increase by approximately 28 percent. The 100-year discharge quantities for the existing and proposed conditions for discharge at the village boundaries are depicted in the table below.

Table J.2 Village 11 100-year Discharge Quantities	
Existing Condition	**Proposed SPA**
970 cfs	1,344cfs

A Storm Water Pollution Prevention Plan (SWPPP) shall be prepared that will address water quality impacts associated with construction and operation of the project. To mitigate impacts from "first flush" runoff and flow, all Best Management Practices (BMPs) identified in the SWPPP shall be implemented.

The SWPPP shall be consistent with the requirements of the Clean Water Act and the BMPs of the RWQCB. BMPs identified in the SWPPP shall include, but are not limited to the following:

a) Existing vegetation shall be retained where possible. To the extent feasible, grading activities will be limited to the immediate area required for construction.
b) Temporary erosion control measures will be employed for disturbed areas.
c) No disturbed surfaces shall be left without erosion control measures in place during the winter and spring months.
d) Sediment will be retained on-site by a system of sediment basins, traps, or other appropriate measures.
e) Storm drains will be equipped with silt and oil traps to remove oils, debris and other pollutants. Storm drain inlets shall be labeled "No Dumping-Drains to Ocean."

f) The parking lots shall be designed to allow storm water runoff to be directed to vegetative filter strips and/or oil-water separators to control sediment, oil, and other contaminants.
g) Permanent energy dissipaters will be included for drainage outlets.
h) The project site drainage basins will be designed to provide effective water quality control measures. Design and operational features of the drainage basins will include design features to provide maximum detention time for settling of fine particles; maximize the distance between basin inlets and outlets to reduce velocities; and establish maintenance schedules for periodic removal of sedimentation, excessive vegetation and debris.

Permanent and temporary drainage improvements

Permanent drainage improvements shall be built as the adjacent roads are constructed. During the construction of Phase 1 of the eastern portion of Village 11, a temporary desiltation basin will be constructed on Phase 2 property. During the construction of Phase 2 and concurrent with construction of Hunte Parkway, the drainage facility will be constructed offsite as shown in Exhibit 19 & 20. During construction of Phase 1 of the western portion of Village 11, a temporary desiltation basin will be constructed on Phase 3 property. The final two basins will be constructed as the western portion of Hunte Parkway is extended. The project will include the construction of runoff conveyance and erosion protection facilities between the two basins. Developer will provide access to all drainage facilities, acceptable to the City Engineer, off-site and on-site.

Phasing of Drainage Facilities:

The drainage facilities to serve Village 11 are integrally related to the construction of other improvements, particularly Hunte Parkway. Consequently, construction of the drainage facilities is expected to coincide with the phased site grading and construction of Hunte Parkway. The permanent drainage facility/energy dissipater to serve the eastern portion of Village 11 will be built with Phase 2, while the two-drainage/energy dissipating facilities serving the western portion of Village 11 will be built with Phase 3.

Interim private desiltation basins will be constructed within the Village 11 boundaries with each grading phase. These facilities are temporary and will be replaced with each subsequent grading phase. Construction of these interim facilities occurs prior to construction of the permanent facility. The interim desiltation basins will be designed to prevent discharge of sediment from the project grading operations into the natural drainage channel and will incorporate water quality control features to comply with Regional Water Quality Control Board 401 Certification requirements.

An interim desiltation basin for Phase 1 East is expected to be located in Phase 2 East. An interim desiltation basin in Phase 3 West will serve phase 1 West and Phase 2 West. The exact size, location and component elements of these interim basins will be identified during preparation of and be shown on the grading plans, subject to the approval of the City of Chula Vista and other permitting agencies."

II.5.4.9.6 Financing Drainage Facilities

City policy requires that all master planned developments provide for the conveyance of storm waters throughout the project to City engineering standards. As such, Village 11 will be required to construct those on and off-site facilities identified in Section II.5.4.9.5 and Exhibit 20 and Exhibit 21 through the subdivision exaction process.

In newly developing areas east of I-805, it is the City's policy that development projects assume the burden of funding all maintenance activities associated with drainage channels and detention basins. As such, the applicant shall enter into an agreement with the City of Chula Vista whereby the applicant will assure maintenance of the channels and detention basins through one of the following funding methods:

1. A homeowner's association (HOA) that would raise funds through fees paid by each property owner; or
2. A Community Facilities District (CFD) established over the entire project to raise funds through the creation of a special tax for drainage maintenance purposes.

II.5.4.9.7 Threshold Compliance and Recommendations

The Otay Ranch Village 11 project shall be responsible for the conveyance of storm water flows in accordance with City Engineering Standards. Any proposed drainage facilities that are not in accordance with City Engineering Standards shall be subject to the approval of the City Engineer at his/her discretion. The City requires the pre-development storm water flows to equal post-development flows. The City Engineering Division will review all plans to ensure compliance with such standards.

1. The applicant shall enter into an agreement with the City of Chula Vista whereby maintenance of the storm drainage facilities will be assured by the applicant though one of the following funding methods:
   a. A homeowner's association (HOA) that would raise funds through fees paid by each property owner; or
   b. A Community Facilities District (CFD) established over the entire project to raise funds through the creation of a special tax for drainage maintenance purposes.
2. Prior to approval of the first final map for the Project, the Applicant shall establish and fund a monitoring program for the purpose of monitoring all off-site drainage and erosion protection from Village 11 subject to the approval of the Regional Water Quality Control Board and the City Engineer. If off-site drainage and erosion protection is required as determined by the Regional Water Quality Control Board or the City Engineer, the Applicant shall at its own cost, process and obtain any Resource or like Agencies permits and install drainage and erosion protection facilities to the satisfaction of the City Engineer. The Applicant shall provide drainage improvements in accordance with the Master Drainage Plan for Otay Ranch Village 11 SPA, dated January 25, 2001, or as otherwise approved by the Director of Public Works. The Applicant shall maintain all such drainage improvements until they are formally accepted by the HOA, or other mechanism as approved by the City. Said maintenance shall ensure that drainage facilities will continue to operate as designed.

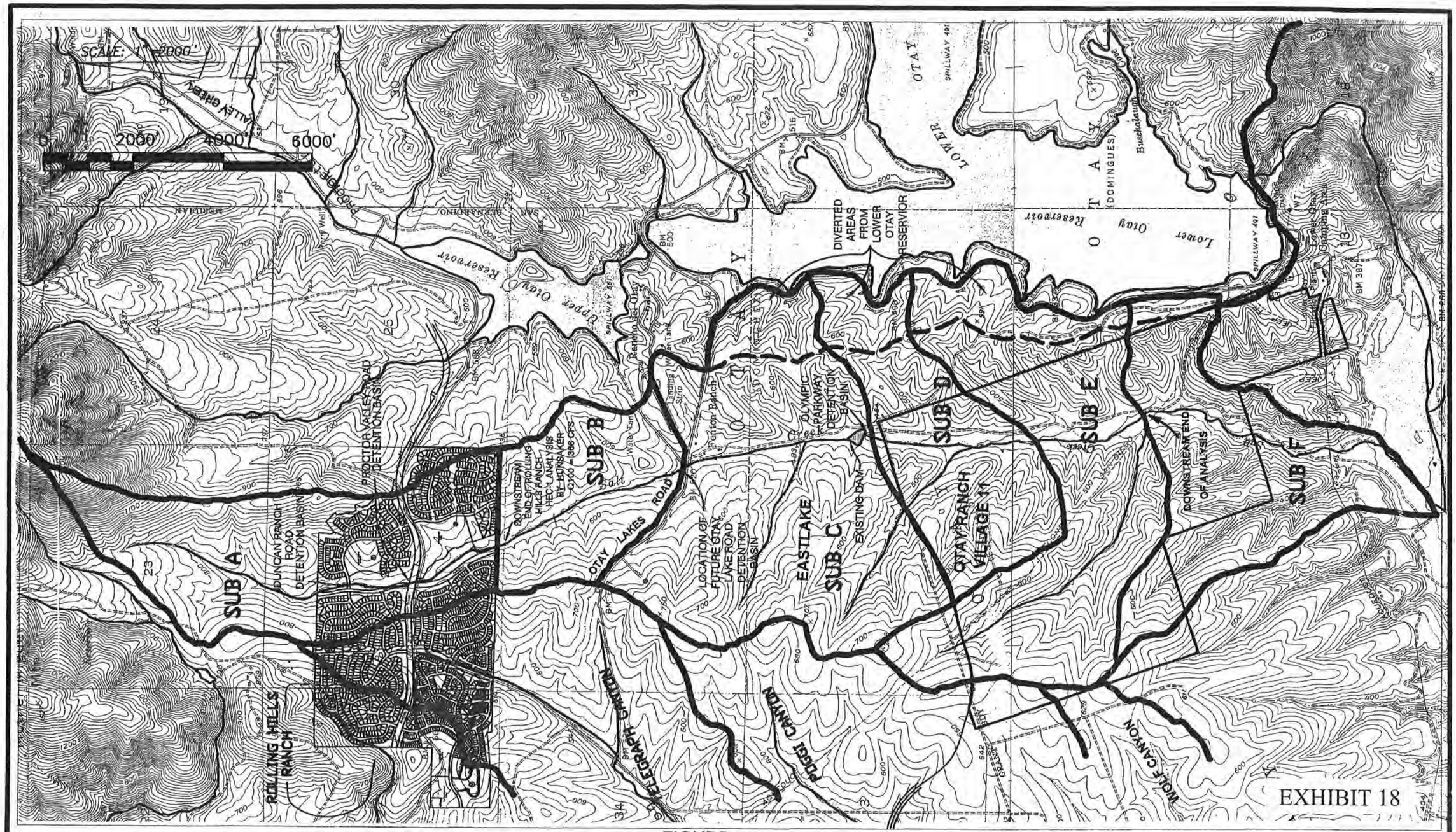


FIGURE 2

PREPARED BY:	DRAINAGE MAP FOR SALT CREEK OTAY RANCH VILLAGE 11 City Of Chula Vista, California	SHEET 1 OF 1
HUDSAKER & ASSOCIATES SAN DIEGO, INC.		

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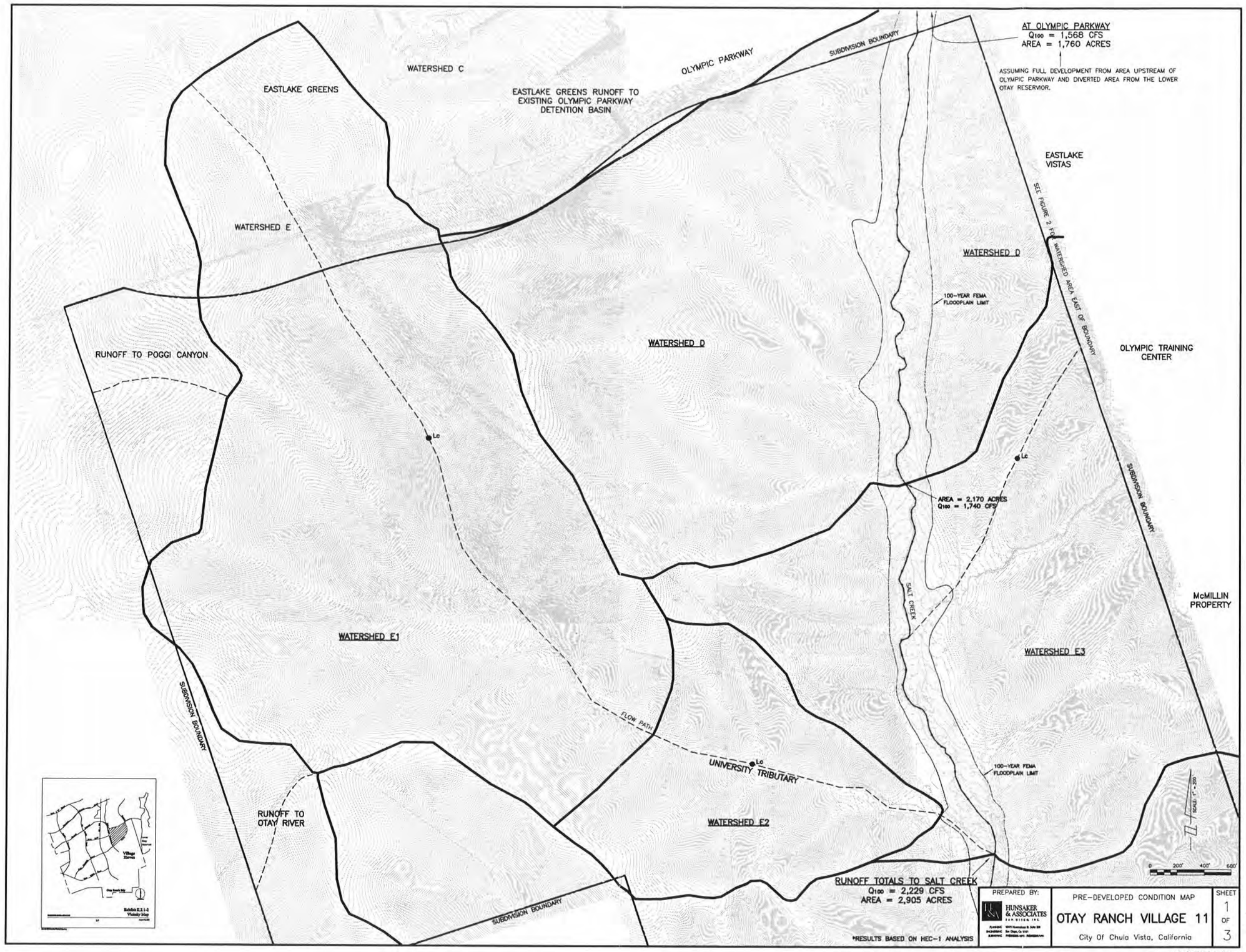
AT OLYMPIC PARKWAY
Q100 = 1,568 CFS
AREA = 1,760 ACRES
ASSUMING FULL DEVELOPMENT FROM AREA UPSTREAM OF OLYMPIC PARKWAY AND DIVERTED AREA FROM THE LOWER OTAY RESERVIOR.
EASTLAKE GREENS
WATERSHED C
EASTLAKE GREENS RUNOFF TO EXISTING OLYMPIC PARKWAY DETENTION BASIN
OLYMPIC PARKWAY
SUBDIVISION BOUNDARY
EASTLAKE VISTAS
SEE FIGURE 2 FOR WATERSHED AREA EAST OF BOUNDARY
WATERSHED E
WATERSHED D
100-YEAR FEMA FLOODPLAIN LIMIT
RUNOFF TO POGGI CANYON
WATERSHED D
OLYMPIC TRAINING CENTER
Lc
AREA = 2,170 ACRES
Q100 = 1,740 CFS
SUBDIVISION BOUNDARY
SALT CREEK
McMILLIN PROPERTY
WATERSHED E1
WATERSHED E3
SUBDIVISION BOUNDARY
FLOW PATH
UNIVERSITY TRIBUTARY
100-YEAR FEMA FLOODPLAIN LIMIT
RUNOFF TO OTAY RIVER
WATERSHED E2
SCALE 1" = 200'
0 200' 400' 600'
RUNOFF TOTALS TO SALT CREEK
Q100 = 2,229 CFS
AREA = 2,905 ACRES
*RESULTS BASED ON HEC-1 ANALYSIS
PREPARED BY:
HUNSAKER & ASSOCIATES
PRE-DEVELOPED CONDITION MAP
OTAY RANCH VILLAGE 11
City Of Chula Vista, California
SHEET 1 OF 3

Exhibit 19

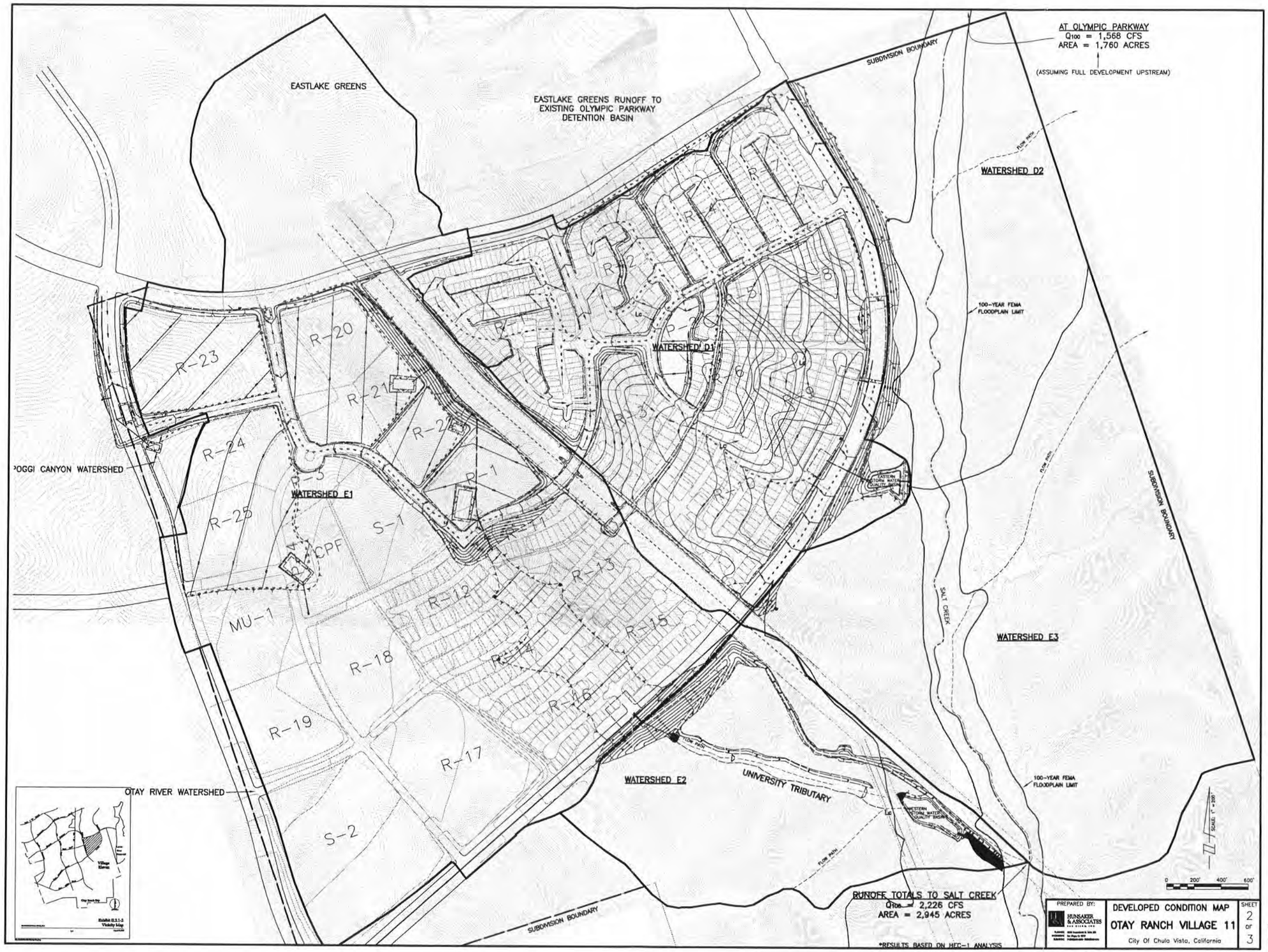
EASTLAKE GREENS
EASTLAKE GREENS RUNOFF TO EXISTING OLYMPIC PARKWAY DETENTION BASIN
SUBDIVISION BOUNDARY
AT OLYMPIC PARKWAY
Q100 = 1,568 CFS
AREA = 1,760 ACRES
(ASSUMING FULL DEVELOPMENT UPSTREAM)
WATERSHED D2
100-YEAR FEMA FLOODPLAIN LIMIT
WATERSHED D1
POGGI CANYON WATERSHED
WATERSHED E1
CPF
R-23
R-20
R-21
R-22
R-24
R-25
R-1
S-1
R-2
R-3
R-4
R-5
R-6
R-7
R-8
R-9
R-10
R-11
R-12
R-13
R-14
R-15
R-16
R-17
R-18
R-19
MU-1
S-2
SALT CREEK
WATERSHED E3
OTAY RIVER WATERSHED
WATERSHED E2
UNIVERSITY TRIBUTARY
RUNOFF TOTALS TO SALT CREEK
Q100 = 2,226 CFS
AREA = 2,945 ACRES
*RESULTS BASED ON HEC-1 ANALYSIS
SUBDIVISION BOUNDARY
PREPARED BY:
HUNSAKER & ASSOCIATES
DEVELOPED CONDITION MAP
OTAY RANCH VILLAGE 11
City Of Chula Vista, California
SHEET 2 OF 3
SCALE 1" = 200'
0 200' 400' 600'

Exhibit 20

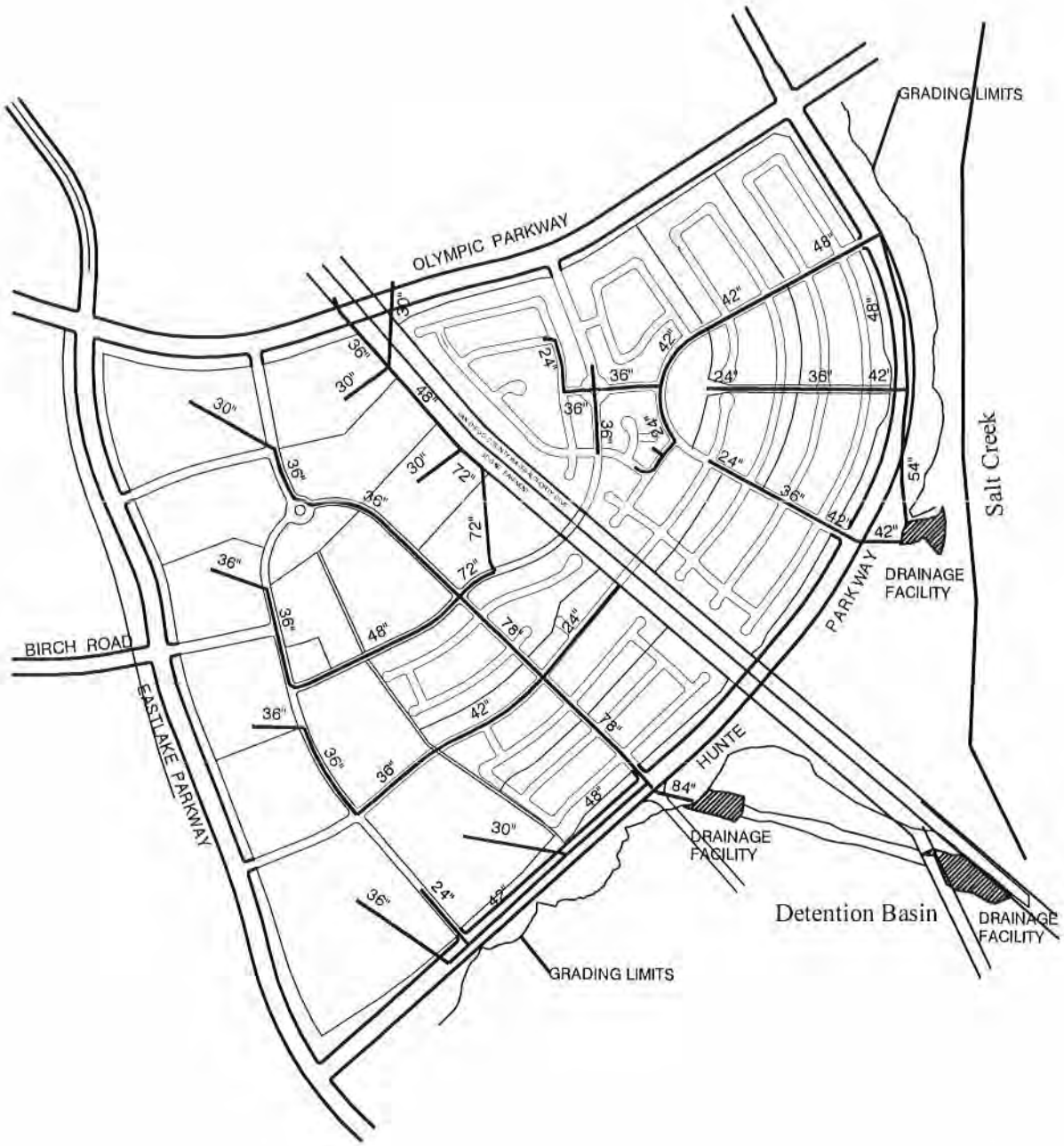

Exhibit 21
Drainage Plan

II.5.4.10 AIR QUALITY

II.5.4.10.1 Threshold Standard

The City annually provides the San Diego Air Pollution Control District (APCD) with a 12-18 month development forecast and requests an evaluation of its impact on current and future air quality management programs, along with recent air quality data. The growth forecast and APCD response letters shall be provided to the GMOC for inclusion in its annual review.

II.5.4.10.2 Service Analysis

Air Quality Improvement Plan

An Air Quality Improvement Plan (AQIP) is required for all major development projects (50 dwelling units or greater, or commercial and industrial projects with 50 EDUs of water demand or greater). This plan is required at the Sectional Planning Area (SPA) Plan level, or equivalent for projects, which are not processed through a Planned Community Zone.

On November 14, 2000, the City Council adopted the Carbon Dioxide (C02) Reduction Plan, which included implementing measures regarding transportation and energy efficient land use planning and building construction measures for new development. In this Plan, it was recognized that the City's efforts to reduce carbon dioxide emissions from new development are directly related to energy conservation and air quality efforts. As a result, the City is initiating a pilot study effort to develop a program to be implemented in new SPA Plans through updating the guidelines for preparation of required AQIPs. In summary, the pilot study involves the development of a computer model to evaluate the relative effectiveness of applying various site design and energy conservation features in new development projects. The pilot study will analyze the Otay Ranch Village 11 SPA project (and two other pending SPA projects), and result in the preparation of an AQIP for Otay Ranch Village 11 that will be considered in conjunction with actions on the project's Tentative Subdivision Map.

The Air Pollution Control District is responsible for the Air Quality Maintenance Program in compliance with the California Clean Air Act. There is no local Master Plan for Air Quality. The draft *Air Quality Improvement Plan - Otay Ranch Village 11 SPA* dated November 30, 2000, was prepared by Hans Giroux. The following goals are identified in the plan:

1. To minimize air quality impacts during and after construction of projects within the plan area.
2. To comply with the air quality standards and policies of the City of Chula Vista and San Diego County APCD.
3. To create a framework for the design and implementation of air quality mitigation measures in this development project.
4. To be economically efficient and cost effective.

A final AQIP will be presented in conjunction with the projects Tentative Map and incorporating the results of the pilot study.

11.5.4.10.3 Threshold Compliance and Recommendations

The City continues to provide a development forecast to the APCD in conformance with the threshold standard. A separate Air Quality Improvement Plan will be provided as part of the SPA and Tentative Map process as noted in Section II.5.4.10.2.

II.5.4.11. CIVIC CENTER:

II.5.4.11.1 CITY THRESHOLD STANDARDS:

There is no adopted threshold standards for these facilities. The facility information is being provided in this report to aid in establishing operational benchmarks which will determine construction phasing of the Civic Center. These facilities are funded through the collection of the DIF fees in effect at the time building permits are issued.

II.5.4.11.2 SERVICE ANALYIS:

Although the existing Civic Center successfully accommodated city administration offices prior to the mid-1980's population growth, increase in City staff to meet new demands of growth has caused increasing congestion problems. Most staff in the Public Services Building experience space shortages, lack of privacy and storage, and frequent noise distractions. This was reported in a survey, which is included in the Civic Center Master Plan dated May 8, 1989. Site Alternative Three "The Suburban Scheme" was selected from the master plan at a City Council conference on June 22, 1989.

II.5.4.11.3 EXISTING CONDITIONS:

Table K
Civic Facilities Inventory

Existing Civic Center facilities	Square Feet
Civic Center	111,940 s.f.
Previous County Health Center	3,120 s.f.
Future Public Works Inspections Division	1,200 s.f.
Total	**116,260 s.f.**

Parking Lots: 333 spaces

Table K.1
Future Facilities Cost

	FUTURE FACILITIES COST	SIZE	ESTIMATED COST
1.	City Hall	25,765 s.f.	$2,203,300
2.	Public Services Facility	40,615 s.f.	$3,023,500
3.	New City Hall Annex	28,925 s.f.	$3,023,600
4.	Legislative Offices	6,000 s.f.	$1,330,000
5.	Subterranean Parking	126 spaces	$1,008,000
6.	Parking Structure	359 spaces	$2,872,000
7.	Demolition	5,920 s.f.	$83,600
8.	Surface Parking	45,425 s.f.	$227,100
9.	Misc. Site Improvements	15,000 s.f.	$180,000
10.	Landscaping	55,000 s.f.	$698,500
11.	Land Acquisition (459 F St.)	-	
12.	Master Plan	-	$65,250
	TOTAL		**$15,459,300**

Note: Some of the size figures represents a combination of remodeled existing square footage and newly constructed square footage. The completed civic facilities will total 149,120 square feet with 625 parking spaces.

II.5.4.11.4 ADEQUACY ANALYSIS:

The need for the Civic Center cannot be easily related to population figures or acres of commercial and industrial land which will be developed in the future. The facilities, according to the master plan, are currently inadequate because of the lack of space. This inadequacy will worsen as employee numbers and their workloads increase in response to demands for services, which are generated by new development.

The City is moving ahead to implement Phase #1 of the Civic Center Master Plan by acquiring additional land to the west of the existing Civic Center for the proposed parking garage.

II.5.4.11.5 FINANCING CIVIC CENTER FACILITIES:

In January 1991, the Chula Vista City Council adopted Ordinance No. 2320 establishing a Development Impact Fee to pay for nine categories of public facilities within the City of Chula Vista. The facilities are required to support future development within the City and the fee schedule has been adopted in accordance with Government Code Section 66000. The fees were updated by adoption of Ordinance No. 2809-B on June 20, 2000. The Public Facilities Development Impact Fee (PFDIF) is $2,618 per equivalent dwelling unit. The portion of the proposed fee attributable for Civic Center is $480/EDU.

The Otay Ranch Village 11 SPA project will be subject to the payment of the fee at the rate in effect at the time of building permits are issued.

Table K.2
Civic Fee For Otay Ranch Village 11 SPA

Development Phase	EDUs	Civic Fee @ $480/EDU
1	532	$255,360
2	1,096	$526,080
3	743	$356,640
Total Otay Ranch Village 11 SPA project	2371	$1,138,080

II.5.4.11.6 THRESHOLD COMPLIANCE AND RECOMMENDATIONS:

Civic Center facilities will be funded through the collection of the public facilities fees at the rate in effect at the time building permits are issued.

II.5.4.12 CORPORATION YARD

II.5.4.12.1 THRESHOLD STANDARDS:

There is no adopted threshold standard for this facility. The facility information is being provided in this report to aid the City in establishing operational benchmarks which will determine construction phasing of the corporation yard.

II.5.4.12.2 SERVICE ANALYSIS:

The existing corporation yard is currently operating beyond capacity. New development, with its resultant increase in required maintenance services, creates a need for a larger corporation yard. A new 25 acre yard is currently under construction. The yard is located at 1800 Maxwell Road and is expected to be completed this year. The City of Chula Vista Corporate Yard Master Plan provides a detailed assessment of the facility and costs. Table L provides a summary of the costs for the proposed new Corporate Yard Facility.

II.5.4.12.3 EXISTING CONDITIONS:

Table L
Corporation Yard Facility

Existing Facilities	**Location**	
Corporation Yard	707 "F" Street	
Planned Facility @ 1800 Maxwell (Under Construction)		**Cost Estimate**
1. New Buildings		$9,352,700
2. Renovated Buildings		$2,204,600
3. Bus Wash/Fuel Island/CNG + equipment		$2,128,200
4. Sitework and demolition		$2,892,000
Subtotal		**$16,577,500**
5. Site acquisition		$8,830,000
6. Construction Contingency (@ 5%)		$828,900
7. Architect/Engineer Fees (@ 9%)		$1,492,000
8. Construction Management		$497,300
9. Soils Reports, Materials Testing and Inspection		$240,000
10. Permits		$165,800
11. Furniture		$829,100
12. Telecommunications/Data System		$300,000
Subtotal		**$13,183,100**
TOTAL		**$29,760,600**

II.5.4.12.4 ADEQUACY ANALYSIS:

The need for a Corporate Yard cannot be easily related to population figures or acres of commercial and industrial land which will be developed in the future. The growth in population, increase in street miles and the expansion of developed areas in Chula Vista, requires more equipment for maintenance as well as more space for storage and the administration of increased numbers of employees. The need for a larger Corporation Yard has been specifically related to new development.

5.3.12.4. FINANCING CORPORATE YARD FACILITIES:

In January 1991, the Chula Vista City Council adopted Ordinance No. 2320 establishing a Development Impact Fee to pay for nine categories of public facilities within the City of Chula Vista. The facilities are required to support future development within the City and the fee schedule has been adopted in accordance with Government Code Section 66000. The fees were updated by adoption of Ordinance No. 2809-B on June 20, 2000. The Public Facilities Development Impact Fee (PFDIF) is $2,618 per equivalent dwelling unit. The portion of the proposed fee attributable for Corporation Yard Facilities is $386/EDU.

The Otay Ranch Village 11 SPA project will be subject to the payment of the fee at the rate in effect at the time of building permits are issued.

Table L.1
Corporate Yard Fee For Otay Ranch Village 11 SPA

Development Phase	EDUs	Corp. Yard Fee @ $386/EDU
1	532	$205,352
2	1,096	$423,056
3	743	$286,798
Total Otay Ranch Village 11 SPA project	2371	$915,206

5.3.12.5. THRESHOLD COMPLIANCE:

Corporate Yard facilities will be funded through the collection of the public facilities fees at the rate in effect at the time building permits are issued.

5.3.13. OTHER PUBLIC FACILITIES

5.3.13.1. THRESHOLD STANDARD:

There is no adopted threshold standard for these facilities which are part of the Public; Facilities Development Impact Fee Program and include GIS, Mainframe Computer, Telephone System Upgrade, and Records Management. The information regarding these capital items is being provided in this section of the PFFP to aid the City and the Developer in calculating the PFDIF fees to be paid by the Otay Ranch Village 11 SPA project.

5.3.13.2. SERVICE ANALYSIS:

The public facilities identified above are described in the report entitled *Development Impact Fee for Public Facilities* dated April 20, 1993, known as document number C093-075.

5.3.14.2. EXISTING CONDITIONS:

The City continues to collect funds from building permit issuance in the Eastern Territories for deposit to the accounts associated with other public facilities. These facilities include administration, telecommunications, computer systems and GIS.

5.3.14.3. FINANCING OTHER PUBLIC FACILITIES:

In January 1991, the Chula Vista City Council adopted Ordinance No. 2320 establishing a Development Impact Fee to pay for nine categories of public facilities within the City of Chula Vista. The facilities are required to support future development within the City and the fee schedule has been adopted in accordance with Government Code Section 66000. The fees were updated by adoption of Ordinance No. 2809-B on June 20, 2000. The Public Facilities Development Impact Fee (PFDIF) is $2,618 per equivalent dwelling unit. The portion of the proposed fee attributable for Corporation Yard Facilities is $176/EDU.

The Otay Ranch Village 11 SPA project will be subject to the payment of the fee at the rate in effect at the time of building permits are issued. At the proposed fee rate, the Otay Ranch Village 11 SPA obligation at buildout is approximately $417,296 as shown on the following table:

Table M
Public Facilities Fees For Other Public Facilities

Development Phase	EDUs	Other Public Facilities Fee @ $176/EDU
1	532	$93,632
2	1,096	$192,896
3	743	$130,768
Total Otay Ranch Village 11 SPA project	2371	$417,296

5.3.14.4 THRESHOLD COMPLIANCE AND RECOMMENDATIONS:

Other Public Facilities will be funded through the Collection of public facility fees at the rate in effect at the time building permits are issued.

II.5.4.14 FISCAL ANALYSIS

II.5.4.14.1 Threshold Standard

1. The GMOC shall be provided with an annual fiscal impact report which provides an evaluation of the impacts of growth on the City, both in terms of operations and capital improvements. This report should evaluate actual growth over the previous 12-month period, as well as projected growth over the next 12-18 month period, and 3-5 year period.

2. The GMOC shall be provided with an annual "economic monitoring report" which provides an analysis of economic development activity and indicators over the next previous 12-month period, as well as projected growth over the next 12-18 month period, and *3-5* year period.

II.5.4.14.2 Facility Master Plan

There is no existing Master Plan for fiscal issues. However, an economic base study and a long range fiscal impact study was prepared by P&D Technologies as part of the Chula Vista General Plan.

II.5.4.14.3 Project Processing Requirements

SPA Plan/PFFP's

1. Prepare a phased fiscal/economic report dealing with revenue vs expenditures including maintenance and operations.

II.5.4.14.4 Fiscal Analysis of Project

II.5.4.14.4.1 Introduction

This analysis identifies the estimated fiscal impact that the Otay Ranch Village 11 Project will have on the operation and maintenance budgets of the City of Chula Vista (general fund). Information pertaining to the scope of development was derived from Brookfield/Shea.

Two basic methodologies were utilized in estimating public agency revenues and expenditures; the case study and per unit/acre multiplier methods. The case study method was used to estimate secured property tax. The case study method is based on specific characteristics of the project from which revenues can be estimated. Appropriate city officials were contacted to identify actual tax rates, fees and costs. The per unit/acre multiplier method, which represents a more general approach was utilized to estimate unsecured property tax, sales tax, TOT, property transfer tax, utility tax, license fees, fines, other revenues and fees and all expenditures. CIC also utilized input from the fiscal impact prepared for Eastlake Trails, Eastlake III, and San Miguel Ranch. The City of Chula Vista's FY 2000-2001 Budget was utilized to estimate per unit/acre multipliers.

Future revenues and expenditures are presented in current (2001) dollars. Also, revenues and expenditures are depicted annually, reflecting a conservatively projected development absorption schedule based on information provided by the city and the developer. This

approach identifies annual project fiscal surpluses and deficits and represents a more realistic approach when compared to assuming instant build-out.

II.5.4.14.4.2Project Description

The Otay Ranch Village 11 Project is proposed to be developed in the City of Chula Vista and includes 1,311 single family units, 993 multi-family units (including 115 residential units as part of a mixed commercial/residential use), 10 acres of retail uses and 8.0 acres of publicly maintained park at build-out. Presented in Table N is a description of the product types and projected absorption schedule, both provided by the City and the developer. This schedule includes a 9 year (2003 to 2011) development schedule. For the purpose of this analysis, absorption represents new units being sold (or rented) and occupied.

Housing market values were estimated by the developer and ranged from $135,000 (multi-family mixed use) to $350,000 (single family – medium sized lots). The values used in the table represents the estimated average unit price for each type of development. Commercial values were estimated using COMP's (Commercial Property Information Services) and previous studies.

II.5.4.14.4.3 Project Demographics and Land Uses

In developing per unit/acre multipliers, CIC utilized demographic and land use information related to the City of Chula Vista as a whole and, more specifically, the subject Otay Ranch Village 11 Project. Included in Table N.2 are population, housing, land-use and infrastructure characteristics. The developer (Brookfield/Shea) provided the number of housing units and acres by land use for Otay Ranch Village 11 Project. In addition, Brookfield/Shea provided the number of street miles, lane miles and street widths. The number of streetlights also represents an estimate and was derived by using the City standard of 350 feet between streetlights.

Table N
Otay Ranch Village 11
Absorption Schedule and Market Values by Land Use

Land Use	Per Unit/ Net Acre Value (000's)	Cumulative Developed and Occupied Units/Acres									
		2003	2004	2005	2006	2007	2008	2009	2010	2011	TOTAL
SINGLE FAMILY RESIDENTIAL UNITS	$283	150	300	450	600	688	838	988	1,139	1,311	1,311
MULTI FAMILY RESIDENTIAL UNITS	$220	100	197	297	397	457	617	717	817	878	878
MULTI-USE RESIDENTIAL	$135	-	-	-	-	115	115	115	115	115	115
MULTI-USE COMMERCIAL	$2,676	-	-	-	-	10	10	10	10	10	10

Source: Brookfield/Shea,
City of Chula Vista,
CIC Research, Inc.

Table N.1 Otay Ranch Village 11 Project Fiscal Impact General Assumptions		
Chula Vista		**Sources**
Population	174,319	CA Dept. of Finance
Occupied Housing Units	56,925	CA Dept. of Finance
Persons Per Household	3.04	CA Dept. of Finance
Street Miles	336	CV Public Works
Lane Miles	778	CV Public Works
Traffic Signals	142	CV Engineering
Street Lights	6,307	CV Engineering
Estimated Avg. HH Income	$55,992	Claritas, Inc.
Median Housing Price	$183,000	DataQuick Info.Serv.
Land Uses (Developed Acres)		
Commercial	1,093.46	CV Planning
Industrial	724.62	CV Planning
Residential	6,876.98	CV Planning
Park	339.85	CV Planning
Otay Ranch Village 11 Project		
Estimated Population	6,995	CV Planning
Housing Units	2,304	CV Planning
Persons Per Household	3.01	CV Planning
Commercial Retail Acres	10.0	Brookfield/Shea
Public Park Acres	8.0	Brookfield/Shea
Street Miles	13.5	Brookfield/Shea
Lane Miles	43.5	Brookfield/Shea
Street lights	189	CIC Research, Inc
Estimated Avg. HH Income	$94,000	CIC Research, Inc
Median Housing Price	$235,000	Brookfield/Shea

II.5.4.14.4.4 Revenues

Operating revenues for the City of Chula Vista resulting from the development of the proposed Otay Ranch Village 11 Project are estimated in this section. The major revenue sources which are expected to be generated from the subject developments and detailed in this chapter include property tax (secured and unsecured), property transfer tax, sales tax, franchise fees, TOT, utility tax, license revenue, miscellaneous fines, homeowner's property tax relief, motor vehicle license fees, gas tax and charges for various current services. The City of Chula Vista's Budget (FY 2000/2001) for these revenue items is detailed in Table N.2 along with allocation rates. The following section details each of the revenue sources and the methodology employed to estimate revenues from the subject developments. For each identified revenue source, a detailed table reflecting the revenue flow over the project build-out (2003 to 2011) is presented in the Appendix of this report. All dollar figures are presented in 2001 dollars (no inflation rates were used).

Table N.2 Otay Ranch Village 11 Project Fiscal Impact Revenue Generation Assumptions		
Revenues	**City of Chula Vista FY2000/01 Revenues**	**Allocation Assumption**
Property Taxes		
Secured	$9,787,848	Based on 10.844% of 1% of TAV
Unsecured	450,000	$245 commercial acre
Other Taxes		
Property Transfer Tax	$575,000	Annual Avg. $28 per housing unit/$85 per commercial acre
Sales & Use Tax	17,702,000	$326 per housing unit/$1,200 commercial acre
Franchise Fees	2,285,890	$33 per housing unit/$1,544 commercial acre
TOT	1,510,000	$2 per housing unit/ $75 per commercial acre
Utility Tax	3,100,000	$24 per housing unit/$1,132 commercial acre
Licenses		
Business License	$750,000	$598 commercial acre
Animal & Bicycle Licenses	55,000	$1 per housing unit
Fines		
Library Fines	$195,470	$3 per housing unit
Parking Citations	199,880	$4 per housing unit/$42 commercial acre
Revenues from other Agencies		
State Homeowners Prop Tax Relief	$185,000	$3 per housing unit
Motor Vehicle Licenses	8,798,000	$154 per housing unit
Gas Tax	2,365,320	$36 per housing unit, $188 commercial
Charges for Current Service		
Recreation	477,908	$8 per housing unit

Secured Property Tax

Secured property tax revenues generated from the proposed developments were calculated on the basis of a one-percent tax rate on the current market value of the residential and commercial construction The subject properties are in tax rate areas 0162. According to the Mr. Pete Redman of the County of San Diego property tax services, the City of Chula Vista would receive 10.6 % of the 1 % of the property taxes collected in those tax rate areas. It should be noted that the citywide average share of property tax is roughly 14.7 %.

As previously mentioned, market values (assessed values) for the residential units were estimated by the developers. Market values for commercial uses were estimated using COMPS, Commercial Property Information Services, Inc., as well as previous studies. These identified market values also represent the assessed values. Although assessed values increase two percent per year and readjust after the property resells, this analysis assumes no inflation and all values remain in 2001 dollars. Included in Tables A-2 (Appendices) in the appendix is the cumulative assessed value over the build-out of the developments. Total assessed values for the Otay Ranch Village 11 Project range from $64.5 million during the first year (2003) to $581.0 million at build-out (2011).

The City of Chula Vista's share of the collected annual property tax is $615,900 for the Otay Ranch Village 11 Project (Appendices Table A-3) at build-out.

Unsecured Property Tax

Unsecured property, which includes personal property such as equipment, inventory, furniture, etc. is taxed for primarily commercial and industrial businesses. CIC utilized the County Assessor's Office estimate of unsecured tax allocation. The County Assessor estimates 65 percent of the unsecured property tax is associated with commercial development and 25 percent is allocated to industrial development. Using the City's budget figure of $450,000 (unsecured tax collect-FY 2000/01) and an estimated 1,194 acres of commercial development results in a ratio of $245 per commercial acre (450,000 x .65 ÷ 1,194) for the City's share of unsecured property tax.

The study portion of the Otay Ranch Village 11 Project includes roughly 10 acres of commercial uses. This would generate an estimated $2,450 in unsecured annual property tax at build-out (refer to Table A-4).

Property Transfer Tax

Sales of real property in San Diego County are taxed at a rate of $1.10 per $1,000 of the sales price. Chula Vista would receive 50 percent of the tax. An analysis conducted by the San Diego Association of Governments (SANDAG) indicates that the average turnover rate for residential property is once every seven years and once every 14 years for nonresidential property. The following formulas, which take both the transfer tax formula and the average turnover rate into account, were utilized to yield average annual per unit property transfer tax.

Single Family Residential	$\frac{\$.55}{\$1,000}$	X	1/7	=	.00007857
Commercial/Industrial	$\frac{\$.55}{\$1,000}$	X	1/14	=	.00003929

Using these formulas, an estimated annual average property tax can be calculated. The Otay Ranch Village 11 Project would generate $45,600 (refer to Table A-5) in average, annual property transfer tax at build-out.

Sales Tax

This fiscal impact methodology equates the collection of sales tax to both residential units and commercial acreage. Based on an analysis conducted by the City of San Diego's Finance Department and given the study site location and land-use mix, CIC utilized the following tax allocations, 75% for residential, 10% for retail/office commercial. The City's share of sales tax generated by the residential portion of the study property is based on $280 per household per year, which is based on 75 percent of the total sales tax collection in the City of Chula Vista, divided by the number of housing units. The estimated sales tax multipliers were adjusted roughly 10 percent to reflect the assumed higher household income in the Otay Ranch Village 11 Project versus the overall City average. Household incomes were estimated for the study project using the City's ratio of household income to housing value. Retail sales taxes for commercial land was based on 10% of the City's sales tax divided by commercial acreage which resulted in a multiplier of $1,482 per acre of retail commercial.

Total annual sales tax generated by the Otay Ranch Village 11 Project is estimated at $712,900 at build-out (refer to Table A-6).

Franchise Fees

The City of Chula Vista receives a franchise tax fee from sales of natural gas, electricity, cable television and trash collection. Using the sale of gas and electricity as a guideline and based on a study prepared by San Diego Gas and Electric (SDG&E), 37 percent of the franchise fees are attributed to residential uses, 36.5 percent to retail/office uses and the remaining 26.5 percent is attributed to industrial uses. Using these guidelines, the city budget, area demographics and land use information results in an estimated $33 in annual franchise fees per housing unit, and $1,544 per developed commercial acre. Utilizing these ratios results in a total annual franchise fee of $91,500 for Otay Ranch Village 11 Project (see Table A-7) at build-out.

Transient Occupancy Tax

Transient occupancy tax (TOT) is a tax added to the price charged for the use of a hotel or motel room. The majority of the tax is associated with new hotel developments. Since there is no planned hotel/motel development in this project, TOT would be generated by the residents and commercial retail enterprises by their use of local hotels/motels. The San Diego Convention and Visitors Bureau estimates that of all visitors who stay in hotels and motels, eight percent are visiting friends or relatives and an additional nine-percent are in San Diego on non-convention business. Utilizing the City's 2000/01 budget for TOT of $2,064,000 and assuming eight percent is generated by residential land uses and nine percent by non-residential uses (assume 50% retail and 50% industrial uses), results in multiplier ratios of roughly $3 per housing unit and $78 per commercial acre. Using these ratios and the estimate of TOT generated by the tourist commercial, the City of Chula Vista will receive a total annual TOT tax of $7,700 associated with the Otay Ranch Village 11 Project (refer to Table A-8).

Utility Users' Tax

The City of Chula Vista's FY2000/01 budget for utility taxes is $3,705,000. These taxes are paid by the residents on gas, electric and telephone services. CIC utilized the same methodology for utility taxes and franchise fees. Using the land use allocation of 37 percent residential uses, 36.5 percent to retail/office uses and 26.5 percent to industrial uses, results in an estimated $24 in annual utility tax per housing unit and $1,132 per developed commercial acre. These ratios result in a total annual utility tax of $66,600 for the Otay Ranch Village 11 Project (refer to Table A-9) at build-out.

Business License Fees

Business license fees are allocated based on a survey reported by the City of San Diego's Financial Management Department, which indicated that 78 percent of the fees were generated by commercial uses and 22 percent were generated by industrial uses. Using the City of Chula Vista's budget ($915,200), the above proportions and the number of citywide developed commercial acres, results in a multiplier of $598 per commercial acre. Using this multiplier, total business license fees attributed to Otay Ranch Village 11 Project are $6,000 per year at build-out (refer to Table A-10 in the Appendices).

Miscellaneous Revenues

CIC grouped numerous revenues into the category of miscellaneous. These revenues include: animal licenses, bicycle licenses, motor vehicle licenses, State homeowners property tax relief, gas tax, library fines, parking citations, swimming pool fees, recreation programs and park reservation fees. With the exception of gas tax and parking citations, all the revenues are assumed to be allocated entirely to residential uses. For these revenues, multipliers were developed by dividing the total revenues by the total number of citywide occupied housing units. Total miscellaneous revenues attributed to the Otay Ranch Village 11 Project are $480,100 per year at build-out (refer to Table A-11 in the Appendices). The allocation of gas tax and parking citations was calculated as follows:

- **Gasoline Tax:**Gasoline tax revenue accrues on the basis of a complicated formula utilizing county to state and incorporated to unincorporated portion of population. According to the City of San Diego's "Fiscal Impact of New Development" and the Department of Motor Vehicle's auto registration records, an estimated 50 percent is attributed to residential uses and the remaining 50 percent is allocated based on vehicle registration (75% residential, 19% commercial and 6% industrial).

- **Parking Citations:**Parking violation revenues were allocated by vehicle registration classification as estimated by the Department of Motor Vehicles (75% residential, 19% commercial and 6% industrial).

II.5.4.14.4.5 Operating Expenditures

Operating expenditures for the City of Chula Vista resulting from development of the Otay Ranch Village 11 Project are outlined in this section. The expenditure categories to be impacted by the subject developments include administration overhead, planning, police, fire, library, public works and parks and recreation. The City of Chula Vista's operating expenditure budgets for fiscal year 2000/01 and allocation assumptions are presented in Table N.3. These expenses are utilized in estimating per unit/acre expenditures for the project. The methodologies used to estimate project expenses are discussed in more detail in the following sections. Similar to the revenue analysis, all figures shown are in current (2001) dollars. The projection of costs in this analysis assumes no significant or predictable changes in the service standards of the City of Chula Vista. Detailed tables reflecting the annual expenditure cash flows are presented in the appendix to this report.

Table N.3 Otay Ranch Village 11 Project Fiscal Impact Cost Allocation Assumptions		
Expenditures	**City of Chula Vista FY00/01 Expenditures**	**Allocation Assumptions**
OVERHEAD FUNCTIONS		
Administration Overhead	$15,775,747	
City Council	$508,081	
Boards and Commission	$10,060	
Community Promotions	$316,506	
City Attorney	$1,283,362	
City Clerk	$535,172	
Admin	$2,732,103	
Management	$2,436,549	
Human Resources	$3,151,693	
Finance	$2,110,266	
Non-Dept	$2,691,955	
Public Works	$2,072,821	
Building Maintenance	$713,079	
Custodial Maintenance	$1,121,028	
Communications	$238,714	
TOTAL OVERHEAD	**$17,848,568**	**Based on 30.7% of Line Operations**
LINE OPERATIONS		
Planning (non current)	$1,187,606	$13 per housing unit, $104 commercial acre
Community Development	$1,902,411	N/A
Police	$26,587,483	$303 per housing unit, $4,622 commercial acre
Fire	$8,303,616	$123 per housing unit, $1,012 commercial acre
Building and Housing	$2,768,991	N/A
Library	$6,429,116	$75 per housing unit
OPERATIONS		
Public Works	$7,381,034	
Operations		
Operations Administration	$631,275	$7 per housing unit/$54 commercial acre
Traffic Operations	$526,180	$726 per lane mile
Street Maint (1)	$1,136,493	$1,327
Overlay Program (CIP)	269,000	$346 per lane mile
Sidewalk Maint (CIP)	$140,000	$436 per street mile
Pavement Rehab (CIP)		
Slurry Seal (2)	$178,040	$6,650 per lane mile
Chip Seal (2)	$178,150	$11,400 per lane mile
Street Sweeping	$356,330	$261 per lane mile
Street Tree Maint	$595,657	$1,402 per street mile
Sanitary Sewer Maint.	$2,315,870	Self supporting

Table N.3 Continued Otay Ranch Village 11 Project Fiscal Impact Cost Allocation Assumptions		
Expenditures	**City of Chula Vista FY00/01 Expenditures**	**Allocation Assumptions**
Wastewater Maint.	$459,964	Self supporting
Engineering		
Engineering Admin.	$447,548	$7 per housing unit/$52 commercial acre
Design	$950,138	Self supporting
Advance Planning	$163,414	Self supporting
Land Development	$1,048,137	Self supporting
Construction Inspection	$1,258,745	$1 per housing unit/$11 commercial acre (90% self funded)
Traffic Engineering	$586,957	$483 per lane mile (20% self funded)
Traffic Signal/Lights Maint.	$1,166,727	$2,683 per signal, $100 per street light
Parks	$3,127,682	$8,399 per park acre (4)
Admin-Parks	374,260	
Admin-Open Space	334,552	Provided by lighting/landscape district
Maintenance	2,418,870	
Recreation	$2,502,606	$47 per housing unit
Athletics	260,720	$5 per housing unit
Aquatics	516,172	$10 per housing unit
Senior Citizens	288,839	$5 per housing unit
General	1,062,615	$20 per housing unit
Administration	374,260	$7 per housing unit
C.V. Woman Ctr.	14,002	Self supporting
TOTAL LINE OPERATIONS (3)	**$53,804,275**	
TOTAL EXPENDITURES	**$65,729,544**	

(1) Estimated at 20% in year 5, 40% in year 6, to 100% in year 9.
(2) Slurry seal will occur after 3 years then every 7 years (residential streets), chip seal after 3 years then every 7 (major streets).
(3) Includes all planning expenses and all public works admin.
(4) Reflects the annual cost which is based on the total cost divided by the total number of acres.

Government Administration

The total costs for city administration services projected in FY 2000/2001 are $11,925,269, as shown in Table N.3. In order to allocate these overhead expenses to the projects, CIC assumed the City cost for the subject developments would incur an overhead rate similar to the City of Chula Vista (city administration overhead ÷ total line operations expenditures=29.8%). Table A-12 in the appendix shows annual overhead expenditures for the Otay Ranch Village 11 Project ($393,900) at build-out.

Planning (Non-Current)

Non-current planning costs are allocated based on the City of Chula Vista's land use allocation (79% residential and 13% commercial/office) and the number of housing units in the city and developed commercial acreage. Utilizing these proportions results in multipliers of $16 per housing unit, $130 per commercial acre. These multipliers translate into annual planning (non-current) costs of $39,200 for the Otay Ranch Village 11 Project (refer to Table A-13, Appendices).

Police

The Chula Vista Police Department will provide police protection for the projects. CIC contacted representatives of the local police department to obtain information on service calls and beat activity attributable to residential, business and industrial land uses. No information was available regarding the nature of local calls and regular beat activity. As a result, CIC utilized City of San Diego's cost allocation by land use from the City of San Diego's "Fiscal Impact Model of New Development".

The San Diego Police Department estimates that calls for service account for roughly 50 percent of their expenditures. They are distributed as follows: 66.6% in or around residential structures, 32.3% in or around commercial structures and 1.1% associated with industrial structures. The other 50 percent of expenditures are attributed to normal "beat" activity, and are allocated in proportion to land use acreage (79% to residential land use and 13% to commercial land use). Averaging the percentages for both service-call activity and "beat" activity yields the following per unit allocations for police service in Chula Vista.

Land Use	Combined Percent of Budget Allocation	Estimated Per Unit Expenditures
Residential	73%	$339/housing unit
Commercial/Office	23%	$5,050/acre

The above estimates are based upon a FY 2000/01 police budget of $6,587,483 and results in annual police costs of $832,600 for Otay Ranch Village 11 Project (refer to Table A-14 Appendices) at build-out.

Fire Protection

As previously mentioned, Otay Ranch Village 11 Project includes a moderate amount of open space (136.7 acres). Fire protection for the open space will be provided by the Chula Vista Fire Department. According to the Chula Vista Fire Department, the City experiences very few brush fires compared to other service calls. However, the potential for a large brush fire does exist and the City could incur extra costs, which are not covered in the State Master Mutual-Aid Agreement.

The proposed urban uses form the basis for allocating fire costs to the Otay Ranch Village 11 Project. The Chula Vista Fire Department also provided CIC with a breakdown of calls for fire protection service in 1997; residential uses 84.2%, commercial uses 14.3% and industrial uses 1.5%. Based on these allocations for fire protection service, the following per unit costs were developed for the project, which results in annual fire protection costs of $351,900 for the Otay Ranch Village 11 Project (refer to Table A-15, Appendices). It should be noted that these costs do not include any expenses for large brush fires.

Paramedic Services

The City of Chula Vista contracts privately with American Medical Response Group to provide paramedic services. Services are charged on a fee for service basis, at no resulting cost to the City. Therefore, the project will not incur any current paramedic expenses and no expense category is shown in the expenditure cash flow analysis for this service. It should be

noted that at some future time, the City could be asked to help fund costs associated with a new paramedic unit to handle future eastern growth.

Library Services

For past studies, CIC Research contacted the Chula Vista Library's Director, Mr. David Palmer regarding allocations by land use for new development's impact on library services. He was able to provide CIC with a breakdown of resident versus nonresident patronage. In fiscal year 1996/1997, 37 percent of local library use (three branches) was by nonresidents of the community. Alternatively, 63 percent of library use was by residents. Since the library is primarily a local resource used by residents as opposed to businesses, the entire budget is allocated to residential uses.

In the FY 2000/01 proposed budget, total library costs are estimated at $6,429,116, which calculates to a multiplier of $113 per housing unit. Total annual library costs associated with the Otay Ranch Village 11 Project are $260,200 (refer to Table A-16, Appendices) at build-out.

Public Works

The Public Works Department has a proposed FY 2000/01 budget of $17,530,000 (this figure excludes some overhead costs, which were included in overhead functions). The Public Works Department is divided into operations and engineering. Mr. David Byers (Deputy Director of Public Works/Operations) assisted CIC in allocating operation costs for a previous study. Building maintenance, custodial maintenance and communications were included in City overhead functions. Operations' administration costs were allocated based on developed acreage proportions and housing units. The other operation costs were allocated on a per street or lane mile basis. As presented in Table N.1, the City of Chula Vista includes 321 street miles and 778 lane miles. The Otay Ranch Village 11 Project is estimated to include 11.7 street miles and 29.5 lane miles at build-out. Approximately 33% of the lane miles would be on major roads while the remainder would be residential. Per Mr. Byers' suggestion, CIC included three (Overlay Program, Sidewalk Maint. and Pavement Rehab.) expenditure categories which represent operating costs but were included in CIP programs. Pavement rehabilitation costs were based on $.07 per square foot for slurry seal and $.12 per square foot for chip seal and allocated to the lane miles in the proposed projects. All of the operation costs begin in year one with the exception of street maintenance (begins in year 5 at 20% and adds 20% each year to year 9), slurry seal and chip seal (begin in year 3 and then every 7 years). Slurry seal costs were allocated to residential streets and chip seal costs were applied to the heavy traffic, major streets. The following Table N.4 details the results of the above allocations.

Table N.4 City of Chula Vista Public Works Cost per Unit/Acre/Mile			
			Allocation
Operations			
	Administration	$ 631,275	$9 per housing unit/$69 commercial acre
	Traffic Operations	526,180	$676 per lane mile
	Street Maintenance	1,136,493	$1,461 per lane mile (1)
	Overlay Program (CIP)	269,000	$346 per lane mile
	Sidewalk Maint. (CIP)	140,000	$417 per street mile
	Pavement Rehab (CIP)		
	Slurry Seal	178,040	$6,650 per lane mile (2)
	Chip Seal	178,150	$11,400 per lane mile (3)
	Street Sweeping	356,330	$458 per lane mile
	Street Tree Maintenance	595,657	$1,773 per street mile
	Wastewater Maintenance	2,315,870	Self supporting
	Wastewater Life Station Maint.	459,964	Self supporting
Engineering			
	Engineering Admin.	$ 207,632	$3 per housing unit/$23 commercial acre
	Design	950,138	CIP Program Funded
	Advanced Planning	163,414	Self supporting
	Land Development	1,048,137	Self supporting
	Construction Inspect.	1,258,745	$2 per housing unit/$14 commercial acre (90% self supporting)
	Traffic Engineering	586,957	$604 per lane mile (20% self supporting)
	Traffic Signal Maint.		
	Signal costs	466,691	$3,287 per signal
	Street light costs	700,036	$111 per street light
	Transit Service Operations	186,808	Self supporting

1) Begins in year 5 at 20%, 40% in year 6 to100% in year 9.
2) Start after year 3 and then every 7 years (residential streets).
3) Start after year 3 and then every 7 years (major streets).

Mr. Cliff Swanson (Deputy Director of Public Works/City Engineering) assisted CIC in allocating public works engineering costs for a previous study. Numerous engineering costs are entirely or partially self funded with fees. The entire engineering administration and a portion of construction inspection and GIS costs were allocated based on citywide land-use acres and housing units. Traffic signal and street light operations and maintenance costs were allocated based on the number of citywide signals and street lights (145 signals and 5,940 street lights) and estimated project signals and lights (0 signals and 204 street lights). The estimated numbers of streetlights in the projects were calculated based on the City standard of one light per 350 feet. The following Table N.4 details engineering cost allocations.

Using the identified ratios and multipliers result in a total annual public works cost of $120,900 for the Otay Ranch Village 11 Project at build-out (refer to Table A-17, Appendices). Because of the length of the presented building schedule, these figures include average annual (15 year) estimates for street maintenance, slurry seal and chip seal costs, which occur infrequently or are phased in, as is the case with street maintenance. Because these street maintenance costs will occur infrequently or possibly delayed depending on conditions, the public works cost will be less in some years and more in other years.

Parks and Recreation Services

The City of Chula Vista's FY 2000/01 proposed park and recreation budget is $5,644,290. CIC Research contacted Mr. Jerry Foncerrada with the Chula Vista Parks and Recreation Department for a previous study. He indicated that close to 100 percent of the department's expenditures go towards the local residential community. The public works department handles the maintenance of city parks and provided park maintenance costs of $8,399 per public park acre. CIC allocated the park cost on a per acre (340 citywide and 8 acres for the Otay Ranch Village 11 Project) and recreation costs on a per housing unit basis.

Annual park maintenance costs allocated to the Otay Ranch Village 11 Project are estimated at $70,900 at build-out ($8,399 * 8.0). Costs for recreation services total $47 per housing unit. Using this multiplier, results in costs of $98,600 for the Otay Ranch Village 11 Project (refer to Table A-18, Appendices). The following table details the cost allocation for Parks and Recreation.

Table N.5
City of Chula Vista
Cost Allocation for Parks and Recreation

	2000/01 Budget	Cost Allocation Unit/Acre
Parks	$3,127,684	$8,399 per park acre
Administration-Parks	374,260	
Administration-Open Space	334,552	Provided by lighting & landscape district
Maintenance	2,418,870	
General	2,147,445	
Marina Park	271,425	Not applicable
Recreation	$2,502,606	$47 per housing unit
Athletics	260,720	$5 per housing unit
Aquatics	516,172	$10 per housing unit
Senior Citizens	288,839	$5 per housing unit
General	1,062,615	$20 per housing unit
Administration-Recreation	374,260	$7 per housing unit

NET FISCAL IMPACT

Utilizing the previously mentioned methodologies estimated net fiscal impacts are presented in Tables 6. As previously mentioned, all values are in 2001 dollars. No annual adjustments to revenues or costs were utilized. The estimated annual flows of costs and revenues are primarily related to the estimated project absorption and street maintenance schedules.

Table N.6 presents the results of the fiscal impact associated with the Otay Ranch Village 11 Project. Fiscal revenues range from $216,000 in the first year of development (2003) to $2,028,700 at build-out (2011). Fiscal expenditures range from $214,700 in year one to $2,168,100 at build-out. The net fiscal impact from developing the Otay Ranch Village 11 Project is slightly positive in year one ($1,300) and is increasingly positive through year four ($5,300). However, the project has a negative impact in year five ($50,800) and remains negative through project build-out ($139,400). The change is caused by the increase in population (and therefore services required) caused by the lower priced multi-use residential with a lower property tax revenue stream. In addition, expenses in subsequent years are effected by the phasing of the public park land and the maintenance required for it, as well as the maintenance on local streets that does not occur until later in the phasing. It should be noted that during some years the net fiscal impact will be more or less due to infrequently needed street repairs.

Table N.6
Net Fiscal Impact of the Otay Ranch Village 11 Project on the City Of Chula Vista

Revenue Sources		Revenues (In Thousands)								
		2003	2004	2005	2006	2007	2008	2009	2010	2011
Secured Property Tax		$68.3	$135.9	$204.3	$272.6	$330.8	$413.2	$481.5	$550.1	$615.9
Unsecured Property Tax		$0.0	$0.0	$0.0	$0.0	$2.5	$2.5	$2.5	$2.5	$2.5
Property Transfer Tax		$5.1	$10.1	$15.1	$20.2	$24.5	$30.6	$35.6	$40.7	$45.6
Sales & Use Tax		$75.8	$150.6	$226.3	$302.1	$396.6	$490.5	$566.3	$642.3	$712.9
Franchise Tax		$8.3	$16.4	$24.7	$32.9	$57.0	$67.3	$75.5	$83.8	$91.5
TOT Tax		$0.8	$1.5	$2.2	$3.0	$4.6	$5.5	$6.3	$7.0	$7.7
Utility Tax		$6.0	$11.9	$17.9	$23.9	$41.6	$49.0	$55.0	$61.0	$66.6
Business License		$0.0	$0.0	$0.0	$0.0	$6.0	$6.0	$6.0	$6.0	$6.0
Miscellaneous Revenues		$51.8	$103.1	$154.9	$206.7	$263.6	$327.9	$379.7	$431.7	$480.1
TOTAL REVENUES		**$216.0**	**$429.5**	**$645.5**	**$861.4**	**$1,127.1**	**$1,392.3**	**$1,608.3**	**$1,825.1**	**$2,028.7**
Expenditure Sources		Expenditures (In Thousands)								
		2003	2004	2005	2006	2007	2008	2009	2010	2011
Government Admin.		$39.0	$77.5	$116.5	$155.5	$214.0	$278.5	$317.8	$357.2	$393.9
Planning		$4.1	$8.2	$12.3	$16.4	$22.0	$27.1	$31.2	$35.3	$39.2
Police		$84.9	$168.7	$253.6	$338.4	$478.2	$583.5	$668.3	$753.5	$832.6
Fire		$36.5	$72.5	$109.0	$145.4	$199.6	$244.8	$281.3	$317.9	$351.9
Library		$28.2	$56.1	$84.4	$112.6	$142.3	$177.3	$205.6	$233.9	$260.2
Public Works		$10.7	$21.3	$32.1	$42.8	$70.2	$85.2	$97.3	$109.4	$120.9
Park and Recreation		$11.3	$22.4	$33.7	$44.9	$51.6	$136.5	$147.7	$159.0	$169.5
TOTAL EXPENDITURES		**$214.7**	**$426.7**	**$641.4**	**$856.1**	**$1,177.8**	**$1,532.8**	**$1,749.2**	**$1,966.2**	**$2,168.1**
		2003	2004	2005	2006	2007	2008	2009	2010	2011
TOTAL REVENUES		$216.0	$429.5	$645.5	$861.4	$1,127.1	$1,392.3	$1,608.3	$1,825.1	$2,028.7
TOTAL EXPENDITURES		$214.7	$426.7	$641.4	$856.1	$1,177.8	$1,532.8	$1,749.2	$1,966.2	$2,168.1
NET FISCAL IMPACT		**$1.3**	**$2.7**	**$4.0**	**$5.3**	**($50.8)**	**($140.5)**	**($140.9)**	**($141.1)**	**($139.4)**

Source: CIC Research, Inc.

4.1 PUBLIC FACILITY FINANCE

4.1.1 Overview

The City will ensure the appropriate public facilities financing mechanisms are utilized to fund the acquisition, construction and maintenance of public facilities required to support the planned development of the Otay Ranch Village 11 project in compliance with the City's Growth Management Program.

Public facilities are generally provided or financed in one of the following three ways:

1. Subdivision Exaction:	Developer constructed and financed as a condition of project approval.
2. Development Impact Fee:	Funded through the collection of an impact fee. Constructed by the public agency or developer constructed with a reimbursement or credit against specific fees.
3. Debt Financing:	Funded using one of several debt finance mechanisms. Constructed by the public agency or developer.

It is anticipated that all three methods will be utilized for the Otay Ranch Village 11 project to construct and finance public facilities.

4.1.2 Subdivision Exactions

Neighborhood level public improvements will be developed simultaneously with related residential and non-residential subdivisions. Through the Subdivision Map Act, it is the responsibility of the developer to provide for all local street, utility and recreation improvements. The use of subdivision conditions and exactions, where appropriate, will insure that the construction of neighborhood facilities is timed with actual development.

The imposition of subdivision conditions and exactions does not preclude the use of other public facilities financing mechanisms to finance the public improvement, when appropriate.

4.1.3 Development Impact Fee Programs

Development Impact Fees are imposed by various governmental agencies, consist with State law, to contribute to the financing of capital facilities improvements within the City of Chula Vista. The distinguishing factor between a fee and a subdivision exaction is that exactions are requested of a specific developer for a specific project whereas fees are levied on all development projects throughout the City or benefit area pursuant to an established formula and in compliance with State law.

Otay Ranch Village 11, through policy decisions of the City of Chula Vista and other governing agencies, is subject to fees established to help defray the cost of facilities that benefit Village 11 and areas beyond this specific project. These fees may include but not be limited to:

1. Eastern Chula Vista TDIF — established to provide financing for circulation element road projects of regional significance in the area east of I-805.
2. Interim Pre-SR 125 Transportation Fee - Effective January 1, 1995, to fund interim improvements within the SR 125 right-of way consistent with the pre SR 125 strategy as identified in the Interim State Route 125 Facility Feasibility Study dated May 1993.
3. Traffic Signal Fee — to pay for traffic signals associated with circulation element streets.
4. Public Facilities Development Impact Fee — Public Facilities DIF established to collect funds for Civic Center Facilities, Police Facilities, Corporation Yard Relocation, Libraries, Fire Suppression System, Geographical Information System (GIS), Mainframe Computer, Telephone System Upgrade and a Records Management System.
5. Park Acquisition and Development Fee — PAD Fee established to pay for the acquisition and development of park facilities.
6. Salt Creek Sewer Basin Development Impact Fee — to pay for constructing sewer improvements within the Salt Creek basin.
8. Poggi Canyon Sewer Basin Development Impact Fee — to pay for constructing sewer improvements within the Poggi Canyon basin.
9. Otay Water District Fees — It should be noted that the Water District may require the formation of or annexation to an existing improvement district or creation of some other finance mechanism which may result in specific fees being waived.

4.1.4 Debt Finance Programs

The City of Chula Vista has used assessment districts to finance a number of street improvements, as well as sewer and drainage facilities. Both school districts have implemented Mello-Roos Community Facilities Districts to finance school facilities.

Assessment Districts

Special assessment districts may be proposed for the purpose of acquiring, constructing, maintaining certain public improvements under the Municipal Improvement Act of 1913, the Improvement Bond Act of 1915, the Benefit Assessment Act of 1982, and the Lighting and Landscape Act of 1972. The general administration of the special assessment district is the responsibility of the public agency.

Special assessment financing may be appropriate when the value or benefit of the public facility can be assigned to a specific property. Assessments are levied in specific amounts against each individual property on the basis of relative benefit. Special assessments may be used for both publicly dedicated on-site and off-site improvements and maintenance.

As a matter of policy, the City limits the type of improvements, which can be financed by assessment district bonding in residential projects. Such improvements are generally limited to collector streets and larger serving entire neighborhood areas or larger. This policy applies to backbone infrastructure including streets, water, sewer, storm drain, and dry utility systems.

Mello-Roos Community Facilities Act of 1982

The Mello-Roos Community Facilities Act of 1982 authorizes formation of community facilities districts, which impose special taxes to provide the financing of certain public facilities or services. Facilities that can be provided under the Mello-Roos Act include the purchase, construction, expansion, or rehabilitation of the following:

1. Local park, recreation, or parkway facilities;
2. Elementary and secondary school sites and structures;
3. Libraries;
4. Any other governmental facilities that legislative bodies are authorized to construct, own or operate including certain improvements to private property.

4.1.5 Other Methods Used to Finance Facilities

General Fund

The City of Chula Vista's general fund serves to pay for many public services throughout the City. Those facilities and services identified as being funded by general fund sources represent those that will benefit not only the residents of the proposed project, but also Chula Vista residents throughout the City. In most cases, other financing mechanisms are available to initially construct or provide the facility or service, then general fund monies would only be expected to fund the maintenance costs once the facility is accepted by the City.

State and Federal Funding

Although rarely available to fund an entire project, Federal and State financial and technical assistance programs have been available to public agencies, in particular the public school districts.

Dedications

Dedication of sites by developers for public capital facilities is a common financing tool used by many cities. In the case of Otay Ranch Village 11, the following public sites are proposed to be dedicated:

1. Roads (if public)
2. Park sites
3. Open space and public trail systems

Homeowners Associations

One or more Community Homeowner Associations may be established by the developer to manage, operate and maintain private facilities and common areas within Otay Ranch Village 11.

Developer Reimbursement Agreements

Certain facilities that are off-site of Otay Ranch Village 11 and/or provide regional benefits may be constructed in conjunction with the development of Otay Ranch Village 11. In such instances, developer reimbursement agreements will be executed to provide for a future payback to the developer for the additional cost of these facilities. Future developments are required to pay back their fair share of the costs for the shared facility when development occurs.

Special Agreements/Development Agreement

This category includes special development programs for financing construction of Telegraph Canyon Road and State Route 125. It also includes any other special arrangements between the City and the developer such as credits against fees, waiver of fees, or charges for the construction of specific facilities.

A development agreement can play an essential role in the implementation of the PFFP. The PFFP clearly details all public facility responsibilities and assures that the construction of all necessary public improvements will be appropriately phased with actual development, while the development agreement identifies the obligations and requirements of both parties.

4.1.6 Public Facility Finance Policies

The following finance policies were included and approved with the Growth Management Program to maintain a financial management system that will be implemented consistently when considering future development applications. These policies will enable the City to effectively manage its fiscal resources in response to the demands placed on the City by future growth.

1. Prior to receiving final approval, developers shall demonstrate and guarantee that compliance is maintained with the City's adopted threshold standards.

2. The Capital Improvement Program Budget will be consistent with the goals and objectives of the Growth Management Program. The Capital Improvement Program Budget establishes the timing for funding of all fee related public improvements.

3. The priority and timing of public facility improvements identified in the various City fee programs shall be made at the sole discretion of the City Council.

4. Priority for funding from the City's various fee programs shall be given to those projects which facilitate the logical extension or provision of public facilities as defined in the Growth Management Program.

5. Fee credits, reimbursement agreements, developer agreements or public financing mechanisms shall be considered only when it is in the public interest to use them or these financing methods are needed to rectify an existing facility threshold deficiency. Such action shall not induce growth by prematurely extending or upgrading public facilities.

6. All fee credit arrangements or reimbursement agreements will be made based upon the City's plans for the timing and funding of public facilities contained in the Capital Improvement Program Budget.

7. Public facility improvements made ahead of the City's plans to construct the facilities will result in the need for additional operating and maintenance funds. Therefore all such costs associated with the facility construction shall become the responsibility of the developer until such time as the City had previously planned the facility improvement to be made.

4.1.7 Cumulative Debt

The City of Chula Vista has an established policy limiting the maximum debt to be placed on a residential dwelling unit to an additional one percent above the property tax. This policy was restated in the adopted Growth Management Program.

Like many other cities, Chula Vista has long understood that it is not the only agency that can utilize public finance mechanisms and, therefore, cannot always guarantee that the total debt will remain at or below a maximum of 2 percent. As a result, the City makes an effort to coordinate its debt finance programs with the other special districts (schools and water) which provide service to the residents of Chula Vista to ensure that the cumulative debt does not become excessive. Coordination is also necessary to guarantee all public facilities needed to support a development can be financed and constructed as needed.

Debt capacity is found by totaling the assessed value of residential and commercial/industrial property and applying to this total two percent rate cap established by City policy as can be seen in Table O. Subtracting from this total assessed value the value of taxes resulting from application of the effective property tax rate as determined by the County Tax Collector (1.03486%), produces the revenue available from indebtedness that could be placed on the property.

Table O.1 identifies $30,771,000 as the estimated cost of facilities that may qualify for debt financing. This amount is less than any of the alternative interest cost and bond term examples identified on the following page. Using the alternative of 6% net interest cost (NIC) and 20-year bond term applied to a conservative $5 million in available annual debt service allows for the financing of approximately $57,349,606 in eligible improvements. This results in an excess bonding capacity of approximately 26,000,000, some of which will be utilized by school financing. Therefore, there appears to be sufficient revenue capacity available to finance the improvements listed, although additional analysis will be required at the time of the first utilization of debt financing in the SPA.

The Public Works Department generally requires the preparation of an assessment district feasibility plan for the build-out of a master planned community prior to initiation of the first assessment district in order to determine the debt capacity limits and benefit zones related to using public financing to fund infrastructure improvements.

Table O Estimated Revenue Available for Debt Service on Land Secured Financings			
DU's or Acres	**Assessed Value/Unit or Acre**	**FAR[25]**	**Total AV**
1311 Single Family Detached	$283,000	N/A	$371,013,000
678 Single Family Attached	$220,000	N/A	$150,516,000
315 Multi-Use Residential Units	$135,000	N/A	$42,525,000
10.0 Commercial Acres	$2,172,000	N/A	$21,720,000
		Total Assessed Value	$585,774,000
		2.0% Tax Rate Cap by City Policy	$11,715,480
		1.03486% Tax Rate Utilized	$6,016,940
Annual revenue available to pay debt service @ 2.00% - 1.12%			$5,653,540

Using $5 million as a conservative amount available for annual debt service and varying the net interest cost (NIC) and term of bond, the following public facility costs could be funded through a financing vehicle such as Mello-Roos and special assessment districts bonds.

- A 5.5% (NIC) and 30 year term will fund approximately $72.7 million.
- A 6.5% (NIC) and 25 year term will fund approximately $61.0 million.
- A 6.5% (NIC) and 20 year term will fund approximately $55.1 million.
- A 7.5% (NIC) and 25 year term will fund approximately $55.7 million.
- A 7.5% (NIC) and 20 year term will fund approximately $51.0 million.

TABLE O.1 Estimate of Facilities Cost Potentially Funded from Debt Service		
Facility	**Segment**	**Cost**
1	Olympic Parkway, SR 125 to Hunte Pkwy	**$4,212,000**
2a	EastLake Parkway, SDG&E Easement to Olympic Pkwy	**$3,336,000**
2b	EastLake Parkway, Olympic Parkway to North Village Entry	**$1,093,000**
2c	EastLake Parkway, North Village Entry to Birch Dr.	**$1,183,000**
2d	EastLake Parkway, Birch Road to Hunte Pkwy	**$2,639,000**
3	Birch Road, La Media Road to EastLake Parkway	**$5,244,000**
4a	Hunte Parkway, Olympic Parkway to North project Access	**$912,000**
4b	Hunte Pkwy, North Project Access to south of SDG&E easement	**$3,010,000**
4c	Hunte Pkwy, North of SDG&E easement to EastLake Pkwy	**$3,648,000**
5	La Media Road: Birch Road to Olympic Pkwy	**$2,470,000**
6	Internal link between R-1 and R-11	**$1,330,000**
7	Otay Lakes Road, E. H street to Telegraph Canyon Rd. (widen to 6 lanes if SR-125 is not constructed prior to 2005)	**$1,694,000**
Total Cost of all Eligible Facilities		**30,771,000**

[25] Floor Area Ratio. Used as a percentage to calculate building square footage from parcel acreage.

4.1.8 Lifecycle Cost

Section 19.09.060 Analysis subsection F (2) of the Growth Management Ordinance requires the following:

> "...The inventory shall include Life Cycle Cost ("LCC") projections for each element in 19.09.060(E)...as they pertain to City fiscal responsibility. The LCC projections shall be for estimated life cycle for each element analyzed. The model used shall be able to identify and estimate initial and recurring life cycle costs for the elements..."

Background

The following material presents information on the general aspects of life cycle cost analysis as well as its specific application to the City of Chula Vista operations. The discussion regarding the general benefits and process of LCC is meant to provide a common base of understanding upon which further analysis can take place.

Life cycle costing (LCC) is a method of calculating the total cost of asset ownership over the life span of the asset. Initial costs and all subsequent expected costs of significance are included in the life cycle cost analysis as well as disposal value and any other quantifiable benefits to be derived as a result of owning the asset. Operating and maintenance costs over the life of an asset often times far exceed initial costs and must be factored into the (decision) process.

Life cycle cost analysis should not be used in each and every purchase of an asset. The process itself carries a cost and therefore can add to the cost of the asset. Life Cycle Cost analysis can be justified only in those cases in which the cost of the analysis can be more than offset by the savings derived through the purchase of the asset.

Four major factors that may influence the economic feasibility of applying LCC analysis are:

1. Energy Intensiveness — LCC should be considered when the anticipated energy costs of the purchase are expected to be large throughout its life.
2. Life Expectancy — For assets with long lives (i.e., greater than five years), costs other than purchase price take on added importance. For assets with short lives, the initial costs become a more important factor.
3. Efficiency — The efficiency of operation and maintenance can have significant impact on overall costs. LCC is beneficial when savings can be achieved through reduction of maintenance costs.
4. Investment Cost — As a general rule, the larger the investment the more important LCC analysis becomes.

The four major factors listed above are not, however, necessary ingredients for life cycle cost analysis. A quick test to determine whether life cycle costing would apply to a purchase is to ask whether there are any post-purchase costs associated with it. Life cycle costs are a combination of initial and post-purchase costs.

Applications for LCC Analysis

The City of Chula Vista utilizes the concepts of life cycle cost analysis in determining the most cost effective purchase of capital equipment as well as in the determination of replacement costs for a variety of rolling stock. City staff uses LCC techniques in the preparation of the City's Five Year Capital Improvement Budget (CIP) as well as in the Capital Outlay sections of the annual Operating Budget.

In addition to these existing processes, the City should require the use of LCC analysis prior to or concurrent with the design of public facilities required by new development. Such a requirement will assist in the determination of the most cost effective selection of public facilities.

APPENDICES

A. Fiscal Impact Analysis Tables

Table A-1
ABSORPTION SCHEDULE BY LAND USE

Land Use	Per Unit/ Net Acre Value (000's)	Cumulative Developed and Occupied Units/Net Acres 2003	2004	2005	2006	2007	2008	2009	2010	2011	TOTAL
SINGLE FAMILY RESIDENTIAL UNITS	$283	150	300	450	600	688	838	988	1139	1311	1311
MULTI-FAMILY RESIDENTIAL UNITS	$220	100	197	297	397	457	617	717	817	878	878
MULT-USE RESIDENTIAL UNITS	$135	0	0	0	0	115	115	115	115	115	115.0
MULTI-USE COMMERCIAL ACRES	$2,172	0.0	0.0	0.0	0.0	10.0	10.0	10.0	10.0	10.0	10.0

Table A-2
ASSESSED VALUE

Land Use	Per Unit/ Net Acre Value (000's)	Cumulative Assessed Value(000's) 2003	2004	2005	2006	2007	2008	2009	2010	2011	TOTAL
SINGLE FAMILY RESIDENTIAL UNITS	$283	$ 42,450	$ 84,900	$ 127,350	$ 169,800	$ 194,704	$ 237,154	$ 279,604	$ 322,337	$ 371,013	$371,013
MULTI FAMILY RESIDENTIAL UNITS	$220	$ 22,000	$ 43,340	$ 65,340	$ 87,340	$ 100,540	$ 135,740	$ 157,740	$ 179,740	$ 193,160	$193,160
MULT-USE RESIDENTIAL UNITS	$135	$ -	$ -	$ -	$ -	$ 15,525	$ 15,525	$ 15,525	$ 15,525	$ 15,525	$ 15,525
MULTI-USE COMMERCIAL ACRES	$2,172	$ -	$ -	$ -	$ -	$ 1,350	$ 1,350	$ 1,350	$ 1,350	$ 1,350	$ 1,350

Table A-3
SECURED PROPERTY TAX REVENUES

SECURED PROPERTY TAX REVENUES		Secured Property Tax Revenue (000s) 2003	2004	2005	2006	2007	2008	2009	2010	2011
TOTAL OTAY RANCH VILLAGE 11										
Total Assessed Values		$ 64,450	$ 128,240	$ 192,690	$ 257,140	$ 312,119	$ 389,769	$ 454,219	$ 518,952	$ 581,048
Tax Rate	1.0%	$645	$1,282	$1,927	$2,571	$3,121	$3,898	$4,542	$5,190	$5,810
TOTAL CHULA VISTA SHARE*	10.6%	**$68.3**	**$135.9**	**$204.3**	**$272.6**	**$330.8**	**$413.2**	**$481.5**	**$550.1**	**$615.9**

Table A-4
UNSECURED PROPERTY TAX

UNSECURED PROPERTY TAX	Tax Per Acre	Unsecured Property Tax Revenue (000's) 2003	2004	2005	2006	2007	2008	2009	2010	2011
Commercial Uses	$245.0	$0.0	$0.0	$0.0	$0.0	$2.5	$2.5	$2.5	$2.5	$2.5
TOTAL OTAY RANCH VILLAGE 11		**$0.0**	**$0.0**	**$0.0**	**$0.0**	**$2.5**	**$2.5**	**$2.5**	**$2.5**	**$2.5**

* Derived from discussions with the County Assessors Office and the City of Chula Vista (According to the Master Tax Agreement between the City of Chula Vista and the County, 41% o
County's general, library and flood control funds would go to the ci

Table A-5
ESTIMATED PROPERTY TRANSFER TAX REVENUES

Single Family Resale Ratio	0.00007857
Commercial Resale Ratio	0.00003929

Product	Resale Rate (Years)	Property Transfer Tax (000s) 2003	2004	2005	2006	2007	2008	2009	2010	2011
Single Family Units	7	$3.3	$6.7	$10.0	$13.3	$15.3	$18.6	$22.0	$25.3	$29.2
Multi Family Units	7	$1.7	$3.4	$5.1	$6.9	$7.9	$10.7	$12.4	$14.1	$15.2
Multi-Use Residential Units	7	$0.0	$0.0	$0.0	$0.0	$1.2	$1.2	$1.2	$1.2	$1.2
Multi-Use Commercial Acres	14	$0.0	$0.0	$0.0	$0.0	$0.1	$0.1	$0.1	$0.1	$0.1
TOTAL OTAY RANCH VILLAGE 11		**$5.1**	**$10.1**	**$15.1**	**$20.2**	**$24.5**	**$30.6**	**$35.6**	**$40.7**	**$45.6**

Table A-6
ESTIMATED SALES TAX REVENUES

2000/2001 Budget For Sales Tax	$17,702,000

Land Use	Sales Tax Per Unit/Acre (000s)	City of Chula Vista's Share of Sales Tax (000s) 2003	2004	2005	2006	2007	2008	2009	2010	2011
Total Single Family Units	$0.303	$45.5	$90.9	$136.4	$181.8	$208.5	$253.9	$299.4	$345.1	$397.2
Total Multi Family Units	$0.303	$30.3	$59.7	$90.0	$120.3	$138.5	$187.0	$217.3	$247.6	$266.0
Total Multi-Use Residential Units	$0.303	$0.0	$0.0	$0.0	$0.0	$34.8	$34.8	$34.8	$34.8	$34.8
Total Multi-Use Commercial Acres	$1.482	$0.0	$0.0	$0.0	$0.0	$14.8	$14.8	$14.8	$14.8	$14.8
TOTAL OTAY RANCH VILLAGE 11		**$75.8**	**$150.6**	**$226.3**	**$302.1**	**$396.6**	**$490.5**	**$566.3**	**$642.3**	**$712.9**

Table A-7
ESTIMATED FRANCHISE FEES

1998/1999 Budget
For Franchise Fees $5,052,000

Land Use	Per Unit	Franchise Fee Revenue (000's)								
		2003	2004	2005	2006	2007	2008	2009	2010	2011
Total Single Family Units	$33	$5.0	$9.9	$14.9	$19.8	$22.7	$27.7	$32.6	$37.6	$43.3
Total Multi Family Units	$33	$3.3	$6.5	$9.8	$13.1	$15.1	$20.4	$23.7	$27.0	$29.0
Total Multi-Use Residential Units	$33	$0.0	$0.0	$0.0	$0.0	$3.8	$3.8	$3.8	$3.8	$3.8
Total Multi-Use Commercial Acres	$1,544	$0.0	$0.0	$0.0	$0.0	$15.4	$15.4	$15.4	$15.4	$15.4
TOTAL OTAY RANCH VILLAGE 11		**$8.3**	**$16.4**	**$24.7**	**$32.9**	**$57.0**	**$67.3**	**$75.5**	**$83.8**	**$91.5**

Table A-8
ESTIMATED TRANSIENT OCCUPANCY TAX

1998/1999 Budget
For Transient Occupancy Tax $2,064,000

Land Use	TOT per Unit/Net Acre	Transient Occupancy Tax (000's)								
		2003	2004	2005	2006	2007	2008	2009	2010	2011
Total Single Family Units	$3	$0.5	$0.9	$1.4	$1.8	$2.1	$2.5	$3.0	$3.4	$3.9
Total Multi Family Units	$3	$0.3	$0.6	$0.9	$1.2	$1.4	$1.9	$2.2	$2.5	$2.6
Total Multi-Use Residential Units	$3	$0.0	$0.0	$0.0	$0.0	$0.3	$0.3	$0.3	$0.3	$0.3
Total Multi-Use Commercial Acres	$78	$0.0	$0.0	$0.0	$0.0	$0.8	$0.8	$0.8	$0.8	$0.8
TOTAL OTAY RANCH VILLAGE 11		**$0.8**	**$1.5**	**$2.2**	**$3.0**	**$4.6**	**$5.5**	**$6.3**	**$7.0**	**$7.7**

Table A-9
ESTIMATED UTILITY TAX

1998/1999 Budget
For Utility Tax $3,705,000

Land Use	Tax per Unit/Net Acre	Utility Tax Revenue (000's)								
		2003	2004	2005	2006	2007	2008	2009	2010	2011
Total Single Family Units	$24	$3.6	$7.2	$10.8	$14.4	$16.5	$20.1	$23.7	$27.3	$31.5
Total Multi Family Units	$24	$2.4	$4.7	$7.1	$9.5	$11.0	$14.8	$17.2	$19.6	$21.1
Total Multi-Use Residential Units	$24	$0.0	$0.0	$0.0	$0.0	$2.8	$2.8	$2.8	$2.8	$2.8
Total Multi-Use Commercial Acres	$1,132	$0.0	$0.0	$0.0	$0.0	$11.3	$11.3	$11.3	$11.3	$11.3
TOTAL OTAY RANCH VILLAGE 11		**$6.0**	**$11.9**	**$17.9**	**$23.9**	**$41.6**	**$49.0**	**$55.0**	**$61.0**	**$66.6**

Table A-10
ESTIMATED BUSINESS LICENSE REVENUE

1998/1999 Budget For Business License Tax	$915,200

Land Use	Average Business License Fee Per Acre	Business License Fees (000's) 2003	2004	2005	2006	2007	2008	2009	2010	2011
Total All Commercial Acres	$598	$0.0	$0.0	$0.0	$0.0	$6.0	$6.0	$6.0	$6.0	$6.0
TOTAL OTAY RANCH VILLAGE 11		**$0.0**	**$0.0**	**$0.0**	**$0.0**	**$6.0**	**$6.0**	**$6.0**	**$6.0**	**$6.0**

Table A-11
ESTIMATED MISCELLANEOUS REVENUES

1998/1999 Budget	Total Budget	Allocation of Budget: Residential	Commercial	Per House Unit	Per Comm. Acre
Animal License	$63,072	$63,072		$1.11	
Bicycle License	$0	$0		$0.00	
Motor Vehicle Licenses	$8,798,000	$8,798,000		$154.55	
State HOPTR	$0	$0		$0.00	
Gas Tax	$2,365,320	$2,069,655	$224,705	$36.36	$188.2
Library Fines	$195,472	$195,472		$3.43	
Parking Citations	$266,500	$199,875	$50,635	$3.51	$42.4
Charges for Current Services					
Swimming Pools	$0	$0		$0.00	
Recreation Program	$477,908	$477,908		$8.40	
Park Reservation Fees	$0	$0		$0.00	
Other Park & Recr. Fees	$0	$0		$0.00	
Total Misc. Revenue	$12,166,272	$11,803,982	$275,340		
	Per Unit/Acre			$207.36	$230.57

Land Use	Per Unit/Acre	Miscellaneous Revenue (000's) 2003	2004	2005	2006	2007	2008	2009	2010	2011
Total Single Family Units	$207.36	$31.1	$62.2	$93.3	$124.4	$142.7	$173.8	$204.9	$236.2	$271.8
Total Multi Family Units	$207.36	$20.7	$40.8	$61.6	$82.3	$94.8	$127.9	$148.7	$169.4	$182.1
Total Multi-Use Residential Units	$207.36	$0.0	$0.0	$0.0	$0.0	$23.8	$23.8	$23.8	$23.8	$23.8
Total Multi-Use Commercial Acres	$230.57	$0.0	$0.0	$0.0	$0.0	$2.3	$2.3	$2.3	$2.3	$2.3
TOTAL OTAY RANCH VILLAGE 11		**$51.8**	**$103.1**	**$154.9**	**$206.7**	**$263.6**	**$327.9**	**$379.7**	**$431.7**	**$480.1**

Table A-12
ESTIMATED EXPENDITURES FOR GOVERNMENT ADMINISTRATION

1998/1999 Budget For Government Administration	$11,925,269

Land Use	Allocated Cost
All Land Uses	22.2% of total line operations

Land Use	Government Administration (000's)								
	2003	2004	2005	2006	2007	2008	2009	2010	2011
TOTAL OTAY RANCH VILLAGE 11	**$39.0**	**$77.5**	**$116.5**	**$155.5**	**$214.0**	**$278.5**	**$317.8**	**$357.2**	**$393.9**

Table A-13
ESTIMATED PLANNING COST
(Non-Current)

2000/2001 Budget For Planning Expenditures	$1,187,606

	Cost per Unit /Net Acre
Residential	$16.43
Commercial	$129.90

Land Use	Planning Costs (000's)								
	2003	2004	2005	2006	2007	2008	2009	2010	2011
Total Single Family Units	$2.5	$4.9	$7.4	$9.9	$11.3	$13.8	$16.2	$18.7	$21.5
Total Multi Family Units	$1.6	$3.2	$4.9	$6.5	$7.5	$10.1	$11.8	$13.4	$14.4
Total Multi-Use Residential Units	$0.0	$0.0	$0.0	$0.0	$1.9	$1.9	$1.9	$1.9	$1.9
Total Multi-Use Commercial Acres	$0.0	$0.0	$0.0	$0.0	$1.3	$1.3	$1.3	$1.3	$1.3
TOTAL OTAY RANCH VILLAGE 11	**$4.1**	**$8.2**	**$12.3**	**$16.4**	**$22.0**	**$27.1**	**$31.2**	**$35.3**	**$39.2**

Table A-14
ESTIMATED POLICE PROTECTION COST

2000/2001 Budget For Police Expenditures	$26,587,483

	Cost per Unit/Net Acre
Residential	$339.47
Commercial	$5,050

Land Use	Police Protection Costs (000's)								
	2003	2004	2005	2006	2007	2008	2009	2010	2011
Total Single Family Units	$50.9	$101.8	$152.8	$203.7	$233.6	$284.5	$335.4	$386.7	$445.0
Total Multi Family Units	$33.9	$66.9	$100.8	$134.8	$155.1	$209.5	$243.4	$277.3	$298.1
Total Multi-Use Residential Units	$0.0	$0.0	$0.0	$0.0	$39.0	$39.0	$39.0	$39.0	$39.0
Total Multi-Use Commercial Acres	$0.0	$0.0	$0.0	$0.0	$50.5	$50.5	$50.5	$50.5	$50.5
TOTAL OTAY RANCH VILLAGE 11	**$84.9**	**$168.7**	**$253.6**	**$338.4**	**$478.2**	**$583.5**	**$668.3**	**$753.5**	**$832.6**

Table A-15
ESTIMATED FIRE PROTECTION COST

2000/2001 Budget For Fire Expenditures	$8,303,616

	Cost per Unit /Net Acre
Residential	$145.87
Commercial	$1,577

Land Use	Fire Protection Costs (000's)								
	2003	2004	2005	2006	2007	2008	2009	2010	2011
Total Single Family Units	$21.9	$43.8	$65.6	$87.5	$100.4	$122.2	$144.1	$166.1	$191.2
Total Multi Family Units	$14.6	$28.7	$43.3	$57.9	$66.7	$90.0	$104.6	$119.2	$128.1
Total Multi-Use Residential Units	$0.0	$0.0	$0.0	$0.0	$16.8	$16.8	$16.8	$16.8	$16.8
Total Multi-Use Commercial Acres	$0.0	$0.0	$0.0	$0.0	$15.8	$15.8	$15.8	$15.8	$15.8
TOTAL OTAY RANCH VILLAGE 11	**$36.5**	**$72.5**	**$109.0**	**$145.4**	**$199.6**	**$244.8**	**$281.3**	**$317.9**	**$351.9**

Table A-16
ESTIMATED LIBRARY COST

2000/2001 Budget For Library Expenditures	$6,429,116

	Cost per Unit/Net Acre
Residential	$112.94
Commercial	$0

	Library Costs (000's)								
Land Use	2003	2004	2005	2006	2007	2008	2009	2010	2011
Total Single Family Units	$16.9	$33.9	$50.8	$67.8	$77.7	$94.6	$111.6	$128.6	$148.1
Total Multi Family Units	$11.3	$22.2	$33.5	$44.8	$51.6	$69.7	$81.0	$92.3	$99.2
Total Multi-Use Residential Units	$0.0	$0.0	$0.0	$0.0	$13.0	$13.0	$13.0	$13.0	$13.0
Total Multi-Use Commercial Acres	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0
TOTAL OTAY RANCH VILLAGE 11	**$28.2**	**$56.1**	**$84.4**	**$112.6**	**$142.3**	**$177.3**	**$205.6**	**$233.9**	**$260.2**

Table A-17
ESTIMATED EXPENDITURES FOR PUBLIC WORKS

1998/1999 Budget For Public Works	$17,530,224	Cost Allocation Unit/Acre Residential	Commercial
Operations			
Administration	$631,275	$11.61	$91.76
Traffic Operations	$526,180	$676.32	per lane mile
Street Maintenance	$1,136,493	$1,460.79	per lane mile (1)
Street Sweeping	$356,330	$345.76	per lane mile
Street Tree Maintenance	$595,657	$416.67	per street mile
Wastewater Maintenance	$2,315,870	self supporting	
Wastewater Lift Station Maint.	$459,964	self supporting	
Engineering			
Traffic Signal Maint.			
Signal costs	$466,691	$3,287	per signal
Street light costs	$700,036	$111	per street light
Transit Service Operations	$180,655	self supporting	
Environmental Mgmt	$164,207	self supporting	

1) Estimated at 20% in year 5, 40% in year 6, to 100% in year 9

	Public Works Expenditures (000's) 2003	2004	2005	2006	2007	2008	2009	2010	2011	TOTAL
Public Street Lane Miles *	4.7	9.3	14.0	18.7	23.6	29.4	34.1	38.8	43.2	43.2
Public Street Miles *	1.4	2.8	4.2	5.6	7.2	9.1	10.5	11.9	13.2	13
Street Lights**	22	44	66	88	111	138	160	182	204	204
Signals**	0	0	0	0	0	0	0	0	0	0
Operations Admin.	$ 2.9	$ 5.8	$ 8.7	$ 11.6	$ 23.8	$ 27.4	$ 30.3	$ 33.3	$ 36.0	
Street Mile Costs	$ 0.6	$ 1.2	$ 1.8	$ 2.3	$ 3.0	$ 3.8	$ 4.4	$ 5.0	$ 5.5	
Lane Mile Costs	$ 4.8	$ 9.5	$ 14.3	$ 19.1	$ 24.1	$ 30.0	$ 34.9	$ 39.7	$ 44.2	
Street Maint.***	$ -	$ -	$ -	$ -	$ 6.9	$ 8.6	$ 10.0	$ 11.3	$ 12.6	
Signal/street light costs	$ 2.4	$ 4.9	$ 7.3	$ 9.8	$ 12.3	$ 15.3	$ 17.8	$ 20.2	$ 22.6	
TOTAL OTAY RANCH VILLAGE 11	**$ 10.7**	**$ 21.3**	**$ 32.1**	**$ 42.8**	**$ 70.2**	**$ 85.2**	**$ 97.3**	**$ 109.4**	**$ 120.9**	

* The phasing of streets were estimated based on the estimated absorption of residential units.
** The phasing of signals and street lights were based on the phasing of streets
***Represent a 15 year annual average during the period from 2003 to 2017

Table A-18
ESTIMATED EXPENDITURES FOR PARK AND RECREATIONS

Estimated Park Development Schedule	Park Acres								
	2003	2004	2005	2006	2007	2008	2009	2010	2011
	0	0	0	0	0	8	8	8	8

2000/2001 Budget For Park & Recreation	$5,644,290	Cost Allocation Unit/Acre	
Parks, Recreation and Open Space	$5,644,290		
Parks	$3,012,952	$8,866	per park acre
Administration - Parks	$385,488		
Administration - Open Space	$334,552		provided by lighting and landscape district
Maintenance	$2,292,912		
General	$2,147,445		
Marina Park	$271,425		Not Applicable
Recreation	$2,564,298	$45.05	per housing unit
Administration- Recreation	$237,124	$4.17	per housing unit
Swimming & Sports	$868,943	$15.26	per housing unit
Senior and youth Services	$303,107	$5.32	per housing unit
Recreation Facilities	$1,155,124	$20.29	per housing unit

	Park and Recreations(000's)								
	2003	2004	2005	2006	2007	2008	2009	2010	2011
Park	$0.0	$0.0	$0.0	$0.0	$0.0	$70.9	$70.9	$70.9	$70.9
Recreation	$11.3	$22.4	$33.7	$44.9	$51.6	$65.5	$76.8	$88.1	$98.6
TOTAL OTAY RANCH VILLAGE 11	**$11.3**	**$22.4**	**$33.7**	**$44.9**	**$51.6**	**$136.5**	**$147.7**	**$159.0**	**$169.5**