APPENDIX M-4: Detailed Calculations for Cumulative Energy Impacts (including Background Growth Detailed Breakdown) and Factor Derivations Playa Vista - Proposed Project Related Projects - Electricity Consumption -----

			(s.f.)	(8.1)		(s.) P ³						· (speces) ¹²	(acras)
Factors kwh/a.1.wr or kwh/a1.4.r		5 626.5	12.85	356	9.95	10.5	0.0	4.35	13.55	47.45	0.5	346.0	36
Т		010											
		710								_			:
	:4755 S. Alla Rd		48,C00										
3 Apartment Complex	8000 Manchester Av	246						_					
	6050 Cerner Dr.	• • •	280,000					_	-				
5 Decron Project	Lincon BManchester Av	547		29,000									
6 Howard Huohes Center	2		1.437.081	100,000	600								
	•	 		64.368									
7 Barter's Harley Davidson	4141 Lincole Bt			51.470									
A Michae Ri Tempia Schrol	Reviseden Au / Otmoin Bi	-	32 600	E EON		RO IEO				4.250			
T		:		222		75.150				n r			
daampeel 0.	Dombian Alexahortor									_			-
		 7			:								
						000.00							
Τ	10201 PICD B:					-					117,000	:	
	74D0 West 80th St	120				.,							
25 LMU Expansion	7101 West 80th St					115,200							
28 Gas Station/Fast Food	7300 La Tiera Bl									1,359			
	L.A. International Airport										6.900.000		;
	16) Aviation BL/Imperial Pute			100 000							3 000 000		
AL VALUATION ANY - I HARE I (2007)	internation of a might be a set of a	Office	1 THE OW		4 DEC								
T	MESICIESSEL LINKA' LONGE DI		minione'	200,000	200						- 100 000 I		•
									-		100°CA0		1
40 Playa Vista Phase	Playa Vista	3,245	2.077,050	35,000		00001021					332,500		
1											797,403		
42 In-N-Out Parking	6335 W. 92nd St											1,815	
53 Samitaur	5900 Jefterson Bi		69,300								161 600		
65 Knowton Av Sericr Housing	Knowtton/_a Tijera	167											
85 Shopping Center	3737 Crenshaw BI			63,674									
86 Shopping Centar		 :		132,802									
	34B0 \$. La Brea		2C,000	79,750									
90 Samla Barbara Paza	Martin Luther King Jr. 3/Buckingham Rd	igham Rd	500.000										
91 Sawtelle Apartmerts	3101 Sawlelle B	203											
	8767 Venice BI		46,712										
	11 10 W. Pico BI		74,653										
94 Warehouse	3450 S. La Brea Av							190,000			-		
Apartments	PersningTalbert	305											
	Playa Vista	2,600	175.000	150,000	•	40.200	0				:		15
Tole! s.1/d.u./rooms		8,118	8,083,798	870,564	1,6650	005 GEA	•	180,000	6	80,909	14,593,500	1.815	15
Total Electricity Consumption (Kwhyr)		48,601,227	78,914,858	11,077,442	13,964,875	4,507,850	0	628,600	5	2,690,132	163,231,767	017,700	9
Total Cumulative Consumption (Kwh/yr)=		11,730,307	7, 821, 466	1, 187, 744	1,395,488	450,765		82,650		208,213	15,322,175	61,710	ن.
Tatel Consumption (with Background Growt	[H]= 362,000,552	100100	86,806,124	13,065,786	200,065,61	4,056,415	•	061,508		3,179,745	168,554,925	678,870	•
Background Growth			•	:			•						
Background Residential Growth (25% facts	58,501,534	This value is the project	fected Residential de	a hend multiplied b	17 1.25J		_		Background G	Background Growth WW Generation Total (mod)	Ion Total (mod)	_	
Background Commercial Growth (10% factor):	203,502,118	This value is the project	fected non-realidentia	sled non-residential demand multiplied by 1.(0)	ed by 1.(0)					38,342,317			
	Eaciground Growth =	2,080	609.380	67,656	165	42,930	0	19,000		6,091	1,459.350	3	- 1
	Fold win background Grawh =	10,056	8,/15,178	964,ZZV	0.01	472/200	•	502,000		67,000	049/240/81		<u>e</u>
Assurbed 850 51, per hole mom	.8. Assume: 2 bads per hospital room 8 850 s.f. bech room	8 850 s.f. bec. hom							·····			;	
Asturned 25 s / per healer soot	 Assumou 100 a.f. per slorege unit everage 	Verage	:							-			
Assumed 35 a ' per restaurant acet	10 Traces values are included to account for small developments that co not require envirormental review.	unt for small develope	nerts that co not requ	Ire envirormental r	BVIB'N.								•
4. Assumed 212 8.1. per acrost succent 5. I tead high school lactor for inclinitional	. 11. Asertmed 2.3U S.T. per toat storage space (OR 3S tie): transmouse tis) 12. Asertmed 154 s.T. mar which stores 0.2.2 k.Whis Thransmolane of Ichal and 1. sona hr commanding (Arbor lind in 1	apade (dessined und so @ 2.2 k//h/s l (nem	ter warenouse user		ial outbouiled in Fibra						!		
	which formed and the up of the second and the second		But and the particular	AND HARD IN DEPART	A								

· -----

Playa Vista - Proposed Project Related Projects - Natural Gas Consumption

Method Telestical Telestical<	:	-		~			: ::::::::::::::::::::::::::::::::::::	(; *) (\$4.5)					
Mathematical Mathematical Sector Get Lunder (1) Bart (1)			5236 7	0	62	6.9	2.0			2 P	0.5	A.M	a.o.
Mathematical Set 5 and 1 a	Recatta	4261 Lincoln El	812										
Control Contro Control Control <th< td=""><td>Multi-Media Ottice</td><td>4755 S. Alla Rd</td><td></td><td>48,000</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<>	Multi-Media Ottice	4755 S. Alla Rd		48,000									
Sector (Sector	Apa tment Complex	8000 Manchester Av	248										
Manual Terminant, New General Manual Terminant,	Center Drive	8060 Center Dr.	547	280,000									
Wilter, Factor, Wilson, Constraint, Constra	Howard Hunbes Center	Sentiveda / H. Hunnes Plew	ŝ	1.467.031	000.001	900				:			!
Materies Enterset					54,368		•	• ··		_	- . –		
Without Control Control <t< td=""><td>Bartlets Harley Davidson</td><td>4141 Lincoln B:</td><td></td><td></td><td>51,470</td><td></td><td></td><td></td><td></td><td>;</td><td></td><td></td><td></td></t<>	Bartlets Harley Davidson	4141 Lincoln B:			51,470					;			
Minutest 25.146 113.89 25.146 113.89 Weit Style 1.01.00 1.000 1.000 1.000 1.000 Weit Style 1.01.00 1.000 1.000 1.000 1.000 1.000 Weit Style 1.01.00 1.000 <	Wilshire Bi Temple Schoo	Barrington Av / Olympic 31		32,300	5,500		69,150	-		4.25			
Million Linkston							25,150	,					
March Mark Mark Mark <	Westway	10-100 Jetterson Bl		123,293		:		:					
Mark Comment (and com	Apa timenis	Persona Anglester	69		000 11								
	Hera 50 y Mar Mined Hood (Banitania) Come		i Q						•		-		
Sector France France<	מוואפת הפפרו (המקורומוואפוי הימוזוו) מייד להייייניים אווי		ş							-			
Control Contro <thcontro< th=""> <thcontro< th=""> <thcont< td=""><td>uter oliar joidil (II) Virginia Avenue Park</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></thcont<></thcontro<></thcontro<>	uter oliar joidil (II) Virginia Avenue Park												
Cloners A. 1133 Zand S. 1033 Zand S. 77,000 Officeres 1030 Zand S. 1000 1000 17,000 Officeres 1030 Zand S. 1000 1000 17,000 Optic France 255 Optic B. BL 105,000 105,000 17,000 Optic France 255 Optic B. BL 105,000 105,000 105,000 Optic France 255 Optic B. BL 105,000 105,000 105,000 Optic France 255 Optic B. BL 103,000 115,000 115,000 115,000 Optic France 27,010 103,000 115,000 115,000 115,000 115,000 Optic France 27,010 103,000 115,000 115,000 115,000 115,000 115,000 Optic France 27,010 115,000 115,000 115,000 115,000 115,000 115,000 115,000 115,000 115,000 115,000 115,000 115,000 115,000 115,000 115,000 115,000 115,000 115,000 115,000 11	100 % Altoritable Serior Aparta	mei 1156-44 4th St	8					_					
Clickowskie 1390000 1390000 1390000 130000 <th< td=""><td>St. Johns Medical Center &</td><td>1328 22mt St</td><td></td><td></td><td></td><td></td><td>475.000</td><td></td><td></td><td></td><td></td><td>····</td><td></td></th<>	St. Johns Medical Center &	1328 22mt St					475.000					····	
Constantial Use Accord Use Ac	Master Plan						739.000		-				
State All Contention Test All Contention	Crossroads School Expansion	1649 17th St.					34.800		-		-	-	
Third Character Third Char	School	9760 Pice BI		•			30,000					- ·	
Statistic Medial Productives SS Compto al EVA Correlative Media S		10201 Pice R									771.00	: 0	
Weiseren Weisen Frieder Freien SS Compte Bit KN, Orthonia Bit KN, Or		1920 RH SI				:	;						
Wittener werden regenter volgenen Statution 115,600 86,000 <th8< td=""><td></td><td></td><td></td><td></td><td>•</td><td></td><td>2005</td><td></td><td></td><td></td><td></td><td></td><td></td></th8<>					•		2005						
Control Francis SS Compose large Francis ESS Compose large Francis <thess compose="" francis<="" th=""> <thess <="" compose="" francis<="" td=""><td>÷</td><td></td><td>n koura v r</td><td></td><td>•</td><td>:</td><td></td><td></td><td>:</td><td></td><td></td><td></td><td></td></thess></thess>	÷		n koura v r		•	:			:				
District Sector District S	and the second second second second		e Buster De		105 000			-					
Mark System Konstruction Konstruction </td <td></td> <td></td> <td>v a bandy Lr</td> <td></td> <td>001001</td> <td></td> <td>20.00</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td> </td>			v a bandy Lr		001001		20.00						
Mark Expertment Mark Expertment Mark Expertment Mark Experiment Mark Exper		DZY Sarta Monica BI.					20,000						
MULTERATION Instant Instant Instant Instant MULTERATION WILTERATION		Mair/Colorado		200'602	럆								
Multi Francisco Multi Fran		7400 West Bolh SI		•									
Misor Fail Douglast Lop Sum 201 Douglast Lop Sum 201 File (N unit) Till Species Sum 201 File (N unit) Sum 201 File (N unit) Sum 201		7101 West BOIh SI					115,000		_				
Hold Start Vifest Ford SEL / 12 Sec / 13 Sec / 1		Douglass Loop						_					80
All Structified 7700 L filter 3,000 1,050 3,000 Office T13,500 L filter 13,000 173,000 173,000 3,000 Office T14,554 L (renegate 1) 7,000 L filter 3,000 1,000 3,000 Office T14,554 L (renegate 1) 7,300 1,13,000 5,000 5,000 5,500 Current filter Aller filter Aller filter Aller filter 1,000 1,000 1,000 5,500 5,500 5,500 5,500 3,500 5,500 3,500 5,500 5,500 3,500 5,500 3,500 5,500 3,500 5,500 3,500		9C1 N. Vash SI.		55,772					-				
Office 1355 La General Statut 3.300 3.30		7300 La Tijera Bl	: .					;		. 1.65			
Offee University Total 173,000 50,000 33,000 <	Office	2260 E. El Segundo Bl		33,000									
Price Biss-Area Xashing (Current Xashing (Current Kashing (Current A) Ref. (Current Kashing (Current Kashing (Current Kashing (Current K	Office	11835 La Cienega El	:	173,000			•	_			•		
Mr Frome State Areas A Zarockate (State Area A Zarockate A	Curver City Retail / Theater	Washington / Culver							ISE'E				
Methods Answers Answers <t< td=""><td>LA Air Force Base-Area A</td><td>2400-2460 El Segundo B:</td><td></td><td>-</td><td>540,C00</td><td>ឆ្ក</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	LA Air Force Base-Area A	2400-2460 El Segundo B:		-	540,C00	ឆ្ក							
Rester Flam Kan frem frame (kinger) Kan frem frame (kinger) Kan frem frame (kinger) Kan frem frame (kinger) Kan frame (kinger)	LA Air Force Base-Area B	Aviation BVE Segundo BI		713,500	93,750	Ì		63.0	00				
Inemaul City - Phase 1 (2006, Austro 10 () / Impertal Hwy Netholse (Parvey / Loyal B) a del Fley Development Manna Del Flay Parvel Birly Parvel (55)SSUV Parvel (55)SSUV Parvel (55)SSUV Parvel (55)SSUV Parvel (55)SSUV Parvel (55)SSUV Parvel (57) Parvel (5	LAX Master Plan	L.A. International Airport						 -∔ :			6,900.0	8	
Nontristica Wearthrader Pervy / Loyala B Office 1,305,000 55,000 773,360 19,000 164 164 175 773,360 <td>Continental City - Phase 1 (200</td> <td>5, Avie: 01 B1/ Imperial Hwy</td> <td></td> <td></td> <td>100,000</td> <td>-</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>. 8</td> <td></td>	Continental City - Phase 1 (200	5, Avie: 01 B1/ Imperial Hwy			100,000	-						. 8	
Na del Fley Development Marina Dei Rley Marina Dei Rley Solo 289 Totalia Totalia <t< td=""><td>LAX Northside</td><td>Westchester Pkwy / Loyola Bl</td><td>Office</td><td>1,30E,03D</td><td>35,C00</td><td>1,050</td><td></td><td></td><td>:</td><td>23.02</td><td>:</td><td>8</td><td></td></t<>	LAX Northside	Westchester Pkwy / Loyola Bl	Office	1,30E,03D	35,C00	1,050			:	23.02	:	8	
In der Ther Unerformant Manual Der Ray 531 3,000 286 19,000 19,000 19,000 19,000 10,000 266 12,000 14,000 17,3 10,000 266 12,000 14,000 17,3 10,000 266 20,000 14,000 17,3 10,000 266 20,000 14,000 17,3 10,000 20,000 14,000 17,3 10,000 20,000 14,000 20,000 14,000 20,000 14,000 20,000 14,000 20,000 14,000 20,000 14,000 20,000 14,000 20,000 14,000 20,000 14,000 20,000 14,000 20,000 14,000 20,000												B	
Prevel Exercit Privily 531 3,000 288 19,000 19,000 19,000 19,000 19,000 19,000 19,000 10,000 288 19,000 19,000 10,000 10,000 200 10,000 200 10,000 200 10,000 200	Marina de: Rey Development	Marina Del Rey											
Pareel 44U 3000 256 13,000 19,000 19,000 19,000 19,000 19,000 19,000 19,000 19,000 10,000 </td <td>37a.</td> <td>Parcel 9U/1CRVFF</td> <td>531</td> <td>4</td> <td></td> <td>266</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>сл</td>	37a.	Parcel 9U/1CRVFF	531	4		266							сл
Parcel 177W Farcel Gr Parcel 175 Farcel Gr 7.3.380 175 2.00 14. 7.3.380 2.0.90 14. Parcel OT Farcel M Parcel OT Farcel M 200 1.4 200 2.0	376	Parcei 44U		-	3,000	55		:		19,00			
37. Pareol (5) Steel (31 20.000 11.7 20.000 20.000 37. Pareol (31 Pareol (31 200 11.7 200 20.00 <td>37c.</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>20.3</td> <td>BC</td> <td></td> <td></td> <td>B45</td> <td></td>	37c.							20.3	BC			B45	
37. Parenti R. 17.3 200 17.3 37. Parenti R. 200 100 200	374	Parcel 65/56S/W		-	11,700	4		-		20.00			
37. Pared IR Pared INF 200 20 37. Pared INF 150 276 37. Pared 167 276 276 37. Pared 1021 780 133 37. Pared 1021 780 133 37. Pared 1024 77 34,488 37. Pared 145 780 34,488 37. Pared 165410 179 55,870 37. Pared 145 179 55,870 34,488 37. Pared 15,163 514 34,488 34,488 37. Pared 12,616 514 514 34,488 37. Pared 12,616 514 514 514 37. Pared 12,616 514 514 514 37. Pared 12,616 514 514 514 37. Pared 12,618 514 514 514 37. Pared 12,618 514 514 514 37. Pared 12,618 51	378	Parcel GR	:			17					:		
37g Facel NF 160 133 37h Paresi NF 133 134 133 148 <t< td=""><td>271</td><td></td><td></td><td></td><td></td><td>2000</td><td></td><td></td><td>-</td><td></td><td></td><td></td><td></td></t<>	271					2000			-				
37. Parent OT 276 32,446 276 32,446 276 32,446 276 32,446 276 32,446 276 32,446 276 32,446 276 32,446 276 32,446 276 32,446	370	Parrie NE				180							
37. Parent 143 76 276 276 37. Parent 0.281 (015) 780 133 34,488 37. Parent 0.281 (015) 780 133 37. Parent 0.281 (015) 780 34,488 37. Parent 14/V 179 55,870 34,488 37. Parent 46' 52' (59 473 34,488 37. Parent 46' 52' (59 473 35,470 37. Parent 46' 52' (59 473 255,670 37. Parent 46' 52' (59 473 255,670 37. Parent 46' 52' (50 473 255,670 37. Parent 46' 52' (50 473 255,670 37. Parent 15,610 514 514 37. Parent 15,610 514 50 37. Parent 15,610 514 514 37. Parent 15,610 514 514 37. Parent 15,610 514 50 37. Parent 15,610 514 50	175	. Bamel OT				3						325	 .
371 Parent 27R 133 133 133 37k Parent 1005/1015 760 133 34,488 37k Parent 1005/1015 760 34,448 34,448 37m Parent 1005/1015 750 34,448 34,448 37m Parent 1405 179 55,870 34,448 37n Parent 165,52/GG 4.79 55,870 34,448 37n Parent 165,52/GG 4.79 55,870 34,448 37n Parent 140 179 55,870 34,448 37n Parent 161 4.19 55,870 34,448 37n Parent 113,4113,4113 126 4.19 56,00 37n Parent 113,4113,4113 126 56 6.450 56,00 37n Parent 113,4113,4113,4113 126 15,000 56,00 56,00 56,00 37n Parent 113,4113,4113,4113,4113,4113,4113,4113,		Dawot 1463	•••••••••••••••••••••••••••••••••••••••		+	376		-		:		3	•
Th Parent 100, 1015 750 34,486 3-,4486 371 Parent 100, 1015 750 3-,4486 3-,4486 371 Parent 140, 10 770 3-,4486 3-,4486 370 Parent 46, 52/ 566 479 55,600 3-,4486 370 Parent 46, 52/ 566 479 255,000 3-,4486 370 Parent 46, 52/ 566 479 255,000 3-,4486 371 Parent 46, 52/ 566 479 255,000 3-,4486 371 Parent 46, 52/ 566 479 255,000 3-,4486 371 Parent 15, 16, 10 514 200 3-,4486 371 Parent 15, 16, 10 514 200 3-,4486 371 Parent 16, 11, 14, 12, 12 50 50 50 50 371 Parent 16, 11, 14, 14, 12 20 20 50 50 50 373 Conccenter/Neutron Martinan Elevent 16, 12, 12 20 50 50 50 50 50 70x		Demot 27D		· ·			:						. .
371 Parexi K 6 34,488 34,488 370 Parexi K 6 179 55,870 34,488 370 Parexi K 6 479 55,870 34,488 370 Parexi K 6 479 55,870 34,488 370 Parexi K 6 479 55,870 34,488 371 Paresi 15, 415 514 295,000 34,488 371 Paresi 12, 415 514 512 295,000 371 Paresi 12, 415 514 512 295,000 371 Paresi 13, 412 294 516 54,600 371 Paresi 11, 51, 12(2) 295 18,450 56,000 371 Paresi 11, 51, 12(2) 295 18,450 56,000 Conc Cerver/Metion Elizach Eli 65,350 18,450 56,000 54,000 Conc Cerver/Metion Cerver/Metion Elizach Eli 32,46 15,300 52,000 54,000	12	Parrel 10021015	780			3							
Time Parcel 14/V 179 55.870 0 <th0< th=""> 0 <th0< th=""> <th0< th=""></th0<></th0<></th0<>	27		271		+ i			34.4	. 58		±		
37n Parcel 955/L5 55,870 55,870 370 Parcel 955/L5 53,870 55,870 370 Parcel 95/L5 51,6 479 255,000 371 Parcel 95/L5 51,6 51,4 255,000 371 Parcel 16,4 51,6 51,4 276 377 Parcel 16,4 51,4 295 295,000 377 Parcel 16,4 51,6 31,4 21,6 377 Parcel 12,4 120 99 20,6 20,6 376 Parcel 14,1,4 120,1 29 20,6 20,6 20,6 376 Conc Center/Netion Reach El 6,500 16,460 36,00 6,400 Conc Center/Netion Detech El 16,300 16,460 36,000 54,000 332,600 Playa Vista Pirace I Piaya Vista 32,460 32,000 54,000 54,000 532,600		Parcel 140V	<u>8</u>					; 				!	-
370. Parcel 45: 52, 66 479 255,000 370. Parcel 16: 52, 66 479 255,000 371. Parcel 15: 51 (6) 514 514 371. Parcel 15: 51 (6) 514 514 371. Parcel 15: 51 (6) 120 514 371. Parcel 15: 51 (6) 120 59 371. Parcel 15: 51 (6) 120 50 LA Ar Frome Ease-Heikbeiton: Develooment Valley UnManheither Beach El 205 18,450 36 Colve: Cervelo/Metion: Cevelooment Valley Vista 3246 15,300 58,000 53,000 Playa Vista Pirase I Playa Vista Pirase I 232,450 35,000 53,000 332,600	37n	Parcel 95S/LLS	2		55.870			-					
370 Parced 64 4.79 4.79 371 Parced 12 Å 15 (a) 514 20 371 Parced 12 Å 15 (a) 514 514 371 Parced 12 Å 15 (a) 514 51 371 Parced 12 Å 15 (a) 59 50 375 Conte Ease-Hawthorne Marine Bi/Auniaton Bi 208 L Å Är Frore Ease-Hawthorne Marine Bi/Auniaton Bi 208 6.850 Coute Center/Netion Develooment Vale v Di/Manhattan Beach Ei 6.350 16.460 35 Flava Vista Prace I Piaya Vista 3.246 2.007 332.600 332.600	170 170	Percel 46/ 52/ GG			205.000			+					
370 Parcel 12 A 15 (a) 514 514 377 Parcel 12 A 15 (a) 514 514 377 Parcel 12 A 17 (a) 120 59 376 Parcel 11 A 112(a) 120 59 376 Core cerver/Netion: Ease-Heinthrome 120 120 Core cerver/Netion: Ease-Heinthrome Marrine Elizability 120 5950 18,450 36 Theya Vista Pirase 1 Piaya Vista 3,246 2,077,050 35,000 132,500 332,500		Dames 24	470				•	-				· · · · · · · · · · · · · · · · · · ·	· · · · ·
Tr. Parental Ziolatici 10 91 91 371. Parental Ziolatici 10 99 91 375. Parental Ziolatici 10 99 91 375. Parental Ziolatici 11 8.12(a) 120 275. Parental Ziolatici 11 8.12(a) 120 Live Are Force Easer Hawthromen Maining Bi/Annatun Eisten Bi 208 Civic Center/Metiox Develoament Valey Dir/Manhattan Eisten Bi 5.00 Telaya Vista Prace Piaya Vista 3.246 2.007	270												
T.A. Fare Ease Hewthome Parce Internet Main Fare Ease Hewthome Fare Ease Hewthowe Fare Ease Hewthowe </td <td></td> <td></td> <td>* 9</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>-</td> <td></td> <td></td>			* 9								-		
LX Ar Force Ease-Hawthrome Marrine Elyment of Marrine Elyman bit 208 6.350 18,450 36 6.400 8.400 8.4500 8.4500	341. 546	Parcel 20(dAL)	2007							+			
Construction in the interview of the interviewof of the interview of the interview of the interview of		·						•					
UNE CERMENTERION CONTROL PARTINICATI			817	20 050	10 160	ai,		.		4	-	: : :	
Praya Visia 3246 2,007,050 35,000 122,000	CINC CENERIARION CONCINE			000 31		R							
		D'arres Mindea	0.00		000 16								
	Playa VISIA PLASS I	Piaya visia	3,240		200000		100'rzi		•				

2003 Natural Gas Dumulariya Calcalx a

• • • • •

- - - -

Piaya Vista - Proposed Project Related Projects - Matural Gas Consumption

as) ⁴ Londscaving (ສດຄວະ)	_																													-											-		T					-						 - -												•	5		0	. e					-]
Parting (staces)			1,815					•																																			:						•	-																	2,895	0	0	9	:				020	i
Industrial (s ') ¹¹						•			-	-			102,000		161,600	15,000										•••					-											•	•				25.000	140.000					1.0,000			B8,500									379.000			3.762.525	376.253	4,138,778		ľ	on Fotal (mgd)		1 567 266	and and .
Hastaurant (s.f.)		-														1000						3,720	5,000							:	-					-							-				75.000						1,000														192,929	926.059	52 526	1.014.665			Beckground Growth WW Ganeratio	111000103	65.21	
Theoter (seal) ²																																											•							:																	3,391	226.180	22.618	248,798			Beckground		336	
Warehouse : (s.l.)						:										-				-																	:					•	•					•															190,000				S57.868	715.736	71.574	287,310		•			25,757	· · · · ·
Jional Marina 6 (sipsi					2	0										:																			9							•					0																			0 0		0		÷						
s) ¹ Civic/Institutional (s.t.) ⁵	•				38.50	27.270	L			וויפב																									R5 14	ίπ.											7.000																			40.00				4,743,248					215 602	
Holel (rooms)																							175			:										ł	e					:		010			1001																			•	4,507	17.672.50	1.757.25	10,329,016			(by 1.25) Mad by 1.10	for a former	131	
Hetail (1.2)				14,728			AN1 BUD		_		1000	73,000		_	_						254,451	8,000			45 000								36,629								40.000				15,000		75.000	19 000						63,674	132,802		197.000	79,750								150.000	3.975.667	11.529.436	1.52 943	12,682,378			temand multiplied by 1.25) to sensed avitabled by 5 mi		207 567	
editio (; s)	EA MM									:			68,000	850,000	69,300	15,000	30,206		ROC'SS	000'Z01'L		58,330		120.610		0.7 CM0		100,000		84,105		100,000							118,700	64,486	8.000	200,006		202,002		300,000	.740.300	2 000		125,000	650,000	250,000	99,450			37,900		23,000	500,000		45,712	74,653				175,000	14.584.308	29.168.772	2.916.579	32,085,671			projected Residential o		1 459 440	and a barrent of
Residentia (d.u.)		:			25				-	;	8					-		·····								-			187					159				5				•			181						-+		pcsa				280		ingham Ed	206				305			12,152	84, 607, 376	16.2:6.844	027 1990 159			(This value is the projecte (This value is the projecte		3.036	
Project Location	210 C Convincio 21	AJU S. SEPUINEDA SI	6335 W. 92nd St	5299 Sepulveda Bi	5250 Sepulveda Bi	Culver Bl/Overland Av	1000 Nr. Masshoeler Bl			CILLA UNEURGA	HOSECTAINS AWI-405 NIS HAIT DS	Centinela E of Bristol	3505 Hayden Av	El Segundo BUHawthome BI	5600 Jefferson Bl	3585 Havdan Av	OFCO Laffarron RI			INZUZ WASNINGTON BI	Sepulveda Bl	1733 Ocean Av	1746 Ocean Av	Sentitiveda BL El Segundo	910 Santa Monica Bi			E.Impenal mwy, El segundo	Knowton/La Tijena	evard					1502 Wilehire RI	1000 2011 St			1685 Marin St	1540 2nd St	Colorado Av	9301 Decorrane		1951 -1961 El Segundo Bi	2012 & 2029 Main SI.	445 & 475 Continenta	rco N. Nash	BOO N Vach		155-555 N. Nash	S.a.JSDn Av/SR-90	Sauson AwSR-90	SW Corner of Douglas & Mariposa	3737 Crenshaw Bl	8985 Venice BI	National BI/Hayden Ave	1430 Lincoln BI	3460 S. La Brea	Marth Luther King Ur. BUBuckingham Rd	3101 Sawtelle BI	8787 Venice BI	11110 W. Pico Bi	3450 S. La Brea Av	Pershino/Talpert	3025 Olymold BI & Nebraska	Piava Vista			1331.080.708	1/00,116,883			81,084,220 Ye nav 663	554 HON'C/	Backoroning Growth =	
Project Name	CHICS ST		but Parking	Hetail 55	Residential 5	Serior Certer			!			_	Troject				an Architerte	1			Fox Hills Mail Expansion S	Commercial	Hotel 1	4. Semikada Bl			_		Knowlton Av Senior Housing K					Sea Castle Apartments .1		alescent Loshie		Assisted Living Facility 1312 15th St	Santa Monica Public Salety Faciliti 1	McDonald's Mixed Use	Transportation Facility Master PlanColorado Av		i		r Boulangerie	Mattel 4	El Secundo Comorale Campus 7		i			Corporate Pointe · II		enter		Partners LLC	Mixed-Use 1.				Office Building				ca Studios			Netural Gas Consumedion (Chinomh)	Cumulative Consumation (Chimonthis	Total Consumption (with Background Growth)=		Background Growth	ound Residential Growth (25% factor):		+	
Project ¥	1		는. 작		44				÷	4 : 7	÷		2 T									-4-			ļ.	·	3:					1		88		 -		د. ۲			122		•	×		N 62	!		1	•			8 0			87 N			8 8									Total	Total	Total Con			Backgn	D. Martin		ļ

2003 Natural Gas Cumulativa Calcaus

Piaya Vista - Proposed Project Related Projects -- Natural Gas Consumption

Proj∋ci k Project Name	Project Location Residential (d)	Residential (d)	Office (1.1)	Hotail (e f.)	hotol (rcoms)	hotel (neams) - Clave Inscitutional - Marina - V (s.1) - (aline)	esnouperexy total	Theoler (seal)	العصومية المعرفة المعرفين المراجع المراجع المعرفين المعرفين المعرفين المعرفين الم	rdusirial (a.f.) ¹¹	Parking (spaces!"	Lancscapir g (aoras)
	Total win Background Growth = 15, 90	15, 90	15 042.836	4,373,234	4,732	2,371,624 0	393 665	393 665 3,730	212 222	17,129,323	2.965	13
Volet.		-				-						
1 Assumed 550 s 1 por hole: room	1 Assumed 550 s1 por hole, room	11 for small development	1991	environmer laf	wiew.	of require environmental Taview.	:				•	:
2 Assumed 23 s f. per theater seal	B Assumed 230 s ' per noel storage s	nace (cleasified under	(esh) denorate (esh)								-	
3. Assumed 33 s ⁽ , per restaurant seat	G. Assumed 154 s.1 per parking space	•	•									
 Assumed 212 6.1, per school student 	10. Assumed 9:00 a 1. per LMU dormita	iny room.		•								•
5. Used office factor for civic/institutional	11. Assumed 1.000.000 s.t. per industria: nel uni gas casiome (based on average ana per facility arrong noterial components of related projecte above	ria: nalural pas custome	 Cased on average 	erea per lacility.	among industrial co	mponents of related projects	vabove).					
5 Assumed 100 s l, por storage unit average	6 Assumed 100 s () por sprave unit average 12 Assumed 2 bads per heavital mom & 850 s () each recom	1 C 85C s.1 cerch room									-	

<u>Consumption/Generation Factor Derivations for Energy and Utility</u> <u>Sections for Playa Vista Second Phase EIS/EIR</u>

ENERGY

Electricity

The following electricity consumption factors are from the South Coast Air Quality Management District's *CEQA Air Quality Handbook* (April 1993, as updated November 1993), Table A9-11-A;

Residential - 5626.50 Kilowatt-hours (kWh)/dwelling unit (d.u.)/year (yr.) Office - 12.95 kWh/square foot (s.f.)/yr. Retail - 13.55 kWh/s.f./yr. → 850 s.f./room (assumed) * 9.95 = 8457.5 kWh/room/yr. Civic/Institutional - 10.50 kWh/s.f./yr. (used Miscellancous factor for this land use) Marina - 0.0 kWh/slip/yr. (electricity usage for Marina slips was considered negligible) Warehouse - 4.35 kWh/s.f./yr. Theater - 13.55 kWh/s.f./yr. Ziber - 13.55 kWh/s.f./yr. Anticome - 47.45 kWh/s.f./yr. Solution - 47.45 kWh/s.f./yr. Industrial - 10.50 kWh/s.f./yr. (used Miscellancous factor for this land use) Parking - 47.45 kWh/s.f./yr. (used Miscellancous factor for this land use) Parking - 47.45 kWh/s.f./yr. (Retail factor) * (4.55% of total average commercial usage for outdoor lighting, Table A9-11-E of the Air Quality Handbook) = 2.2 kWh/s.f./yr. for outdoor lighting → 2.2 kWh/s.f./yr. * 154 s.f./parking space (assumed) = 338.8 kWh/space/yr. → 340.0 kWh/space/yr. (rounded up for simplicity)

<u>Natural Gas</u>

The following natural gas consumption factors are from the South Coast Air Quality Management District's CEQA Air Quality Handbook (April 1993, as updated November 1993), Table A9-12-A:

Residential- 6665.0 cubic feet (c.f.)/d.u./month (single-family units) ; 4011.5 c.f./d.u./month (multi-family units) \rightarrow (6665.0 + 4011.5)/2 = 5338.25 c.f./d.u./month (average factor for single- and multi-family units) \rightarrow 5338.0 c.f./d.u./month (rounded for simplicity)

Office - 2.0 c.f./s.f./month

Retail - 2.9 c.f./s.f./month

Hotel - 4.8 c.f./s.f./month

Civic/Institutional - 2.0 c.f./s.f./month (used Office factor for this land use)

Marina - 0 c.f./slip/month (natural gas consumption for Marina slips was considered negligible)

Warchouse - 2.0 c.f./s.f./month (used Office factor for this land use)

<u>Theater</u> – 2.9 c.f./s.f./month (Retail factor) \rightarrow 2.9 * 23 s.f./seat (assumed) = 66.7 c.f./seat/month

<u>Restaurant</u> – 4.8 c.f./s.f./month (used Hotel/Motel factor for this land use)

 $\frac{\text{Industrial} - 2,939.6 \text{ thousand c.f. (k.c.f.)/parcel/month} \rightarrow (2,939,600 / 27,000 \text{ s.f./parcel (assumed)}) = 108.87 \text{ c.f./s.f./month}$

<u>Parking</u> $-\theta$ c.f./space/month (natural gas consumption for parking lots was considered negligible)

Operational Fuel Consumption

The following natural gas consumption factors are derived from the South Coast Air Quality Management District's *CEQA Air Quality Handbook* (April 1993, as updated November 1993), Table A9-5-A-1, as well as average trip length from the *URBEMIS 7G Air Quality Model*, Version 3.1, which analyzes the South Coast Air Basin for urbanized areas within Los Angeles County:

The URBEMIS model reported an average trip length of 6.773 miles within urban Los Angeles County, and assumes a fuel economy of 25 miles per gallon on average (0.04 gallons per mile). To calculate fuel

consumption, the average trip length divided by the fuel economy yields a product of fuel consumed per average trip:

6.773 miles (average) / 25 miles per gallon = 0.27092 gallons per day (gpd) per average trip

Consumption factors for land use take into account weekday, Saturday, and Sunday trips using a weighted average number of trips per day:

((Weekday trips * 5) + (Saturday trips * 1) + (Sunday trips * 1)) / 7 days per week = Weighted average

In the following fuel consumption factors, the weighted average number of daily trips (ADT = average daily trips) for each land use type are multiplied by 0.27092 (average fuel consumed per trip) to describe fuel consumed on average per square foot, dwelling unit, hotel room, or theater seat of land use:

<u>Residential</u> - 6.051 (ADT Weighted Average) * 0.27092 gallons per trip (gpt) = 1.639 gpd/ d.u. <u>Office</u> - 16.58 (ADT Weighted Average) * 0.27092 gpt = 0.004492 gpd/s.f. <u>Retail</u> - 66.613 (ADT Weighted Average) * 0.27092 gpt = 0.01805 gpd/s.f. <u>Hotel</u> - 8.926 (ADT Weighted Average) * 0.27092 gpt = 2.4182 gpd/room <u>Civic/Institutional</u> - 21.043 (ADT Weighted Average) * 0.27092 gpt = 0.005701 gpd/s.f. <u>Marina</u> - 3.489 (ADT Weighted Average) * 0.27092 gpt = 0.94524 gpd/slip <u>Warehouse</u> - 3.773 (ADT Weighted Average) * 0.27092 gpt = 0.001022 gpd/s.f. <u>Theater</u> - 1.841 (ADT Weighted Average) * 0.27092 gpt = 0.49877 gpd/seat <u>Restaurant</u> - 209.371 (ADT Weighted Average) * 0.27092 gpt = 0.001426 gpd/s.f. <u>Industrial</u> - 5.264 (ADT Weighted Average) * 0.27092 gpt = 0.001426 gpd/s.f.

UTILITIES

Water Consumption

The following water consumption factors are from the City of Los Angeles Draft LA. CEQA Thresholds Guide (May, 1998), for sewerage generation rates (Exhibit K.2-11). This assumes that all potable water becomes wastewater, and therefore, all sewerage generated was once an equal volume of potable water. Marina consumption factor is from Camp Dresser & McKee Inc., Conceptual Pre-Design: Water Reclamation and Solid Waste Processing Facilities, June 1990.

Residential – Studio – 80.0 gallons per day (gpd) / d.u. Residential – One Bedroom – 120.0 gpd/d.u. Residential – Two Bedroom – 160.0 gpd/d.u. Residential – Three Bedroom – 200.0 gpd/d.u. Residential – Four Bedroom – 240.0 gpd/d.u. Office – 150.0 gpd/1000 s.f. (k.s.f.) Retail – 80.0 gpd/k.s.f. Hotel – 130.0 gpd/room Civic/Institutional – 80.0 gpd/k.s.f. Marina – 13 gpd/slip

Note: For the cumulative projects analysis, a composite Residential consumption factors was derived (in order to have a single residential factor, as related projects are not differentiated by housing type) for simplicity of analysis. It is the average consumption of each housing type, which is equal to 160.0 gpd/d.u.

Wastewater Generation

The following wastewater generation factors are from the City of Los Angeles *Draft L.A. CEQA Thresholds Guide* (May, 1998), for sewerage generation rates (Exhibit K.2-11). These generation rates are identical to the consumption factors above for potable water, with the exception of office uses, where reclaimed water is used for toilet flushing and in cooling towers. This results in a difference of 30 gpd/k.s.f. for *office uses* between the water consumption and wastewater generation factors.

<u>Residential</u> – 160.0 gpd/d.u. <u>Office</u> – 180.0 gpd/1000 k.s.f. <u>Retail</u> – 80.0 gpd/k.s.f. <u>Hotel</u> – 130.0 gpd/room <u>Civic/Institutional</u> – 80.0 gpd/k.s.f. <u>Marina</u> – 13 gpd/slip

Solid Waste Generation

The following solid waste generation factors are from the California Integrated Waste Management Board's website, Waste Characterization database: http://www.ciwmb.ca.gov/WasteChar/WasteGenRates. The solid waste generation factor for Marina slips is from Master Plan for Playa Vista, Draft Program EIR, September 28, 1992, which used the actual solid waste generation rate per slip from King's Harbor Marina. The solid waste generation factor for Restaurant uses is from Master Plan for Playa Vista, Draft Program EIR, September 28, 1992, from which a composite factor was derived from the "sit down" and "fast food" restaurant factors.

- <u>Residential</u> (12.23 lbs./household/day [Residential factor]) / (2000 lbs./ton) = 0.006115 tons per day (*t.p.d.*)/*d.u.* $\rightarrow 0.00612$ *t.p.d.*/*d.u.*
- Office (0.006 lbs./s.f./day [Office factor]) / (2000 lbs./ton) = 0.000003 t.p.d./s.f.
- <u>Retail</u> (3.12 lbs./100 s.f./day [Supermarket factor]) / (2000 lbs./ton) = 0.00156 tpd/100 s.f./day → 0.0000156 t.p.d./s.f./day
- Hotel (4.0 lbs./room/day [Hotel/Motel factor, assuming 750 s.f./room]) / (2000 lbs./ton) = 0.002 t.p.d./room → (0.002 t.p.d./room) / (750 s.f./room) = 0.0000026 t.p.d./s.f. * 850 s.f./room (assumed for Playa Vista Second Phase Project) = 0.00221 t.p.d./room

<u>Civic/Institutional</u> – (0.007 lbs./s.f./day [Public/Institutional factor]) / (2000 lbs./ton) = 0.0000035 t.p.d./s.f. Marina – 0.002 t.p.d./slip

Warehouse - (0.0108 tons/s.f./yr. [Warehouse factor]) / (365 days/yr.) = 0.0000295 t.p.d./s.f.

<u>Theater</u> - (3.12 lbs/100 s.f./day [Other Services factor]) / (2000 lbs./ton) = 0.00156 t.p.d./100 s.f. \rightarrow (0.00156 t.p.d.) / (100 s.f.) = 0.00000156 t.p.d./s.f. \rightarrow (0.00000156 t.p.d./s.f.) * (23 s.f./theater scat [assumed]) = 0.000359 t.p.d./seat

<u>Restaurant</u> – (0.00000696 t.p.d./s.f. ["sit down" restaurant factor] * 0.00000607 t.p.d./s.f. ["fast food" restaurant factor]) = 0.00001303 / 2 = 0.000006515 → 0.0000065 t.p.d./s.f.

- $\frac{\text{Industrial} (62.5 \text{ lbs./k.s.f./day [Industrial factor]}) / (2000 \text{ lbs./ton}) = 0.03125 \text{ t.p.d./k.s.f.} \rightarrow (0.03125 \text{ t.p.d./k.s.f.}) / (1000 \text{ s.f./k.s.f.}) = 0.00003125 \rightarrow 0.0000312 \text{ t.p.d./s.f.}$
- Parking 0.0 lbs./space/day (solid waste generation for parking is considered negligible) -> 0.0 t.p.d./space