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EIR Technical Reports for 80% Program Hospitality Option Wastewater/Sewer and Water PSOMAS, May 4, 2010

EIR TECHNICAL REPORTS FOR: 80% PROGRAM -HOSPITALITY OPTION

- WASTEWATER / SEWER
- WATER

For

Colorado at Lake 880 East Colorado Project 880 East Colorado Blvd, Pasadena, California

Psomas Project No.: 1SIN010100 May 4, 2010

Prepared for:

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EIR WASTEWATER/SEWER SYSTEM TECHNICAL REPORT

2. DESCRIPTION OF THE PROJECT

The 80% hospitality project alternative is identical to the 100% program with the following differences:

- The office space has been decreased from 103,410 square feet to 69,726 square feet.
- The restaurant space has been decreased from 35,091 square feet to 20,500 square feet. The outdoor seating has decreased from 5,280 square feet to 5,256 square feet.
- The parking structure has been decreased from 239,385 square feet to 207,017 square feet.
- The retail space has been increased from 22,410 square feet to 26,628 square feet.

Tables 1, 2 & 3 have been revised per the revisions noted above and follow in this report.

5. SEWER SYSTEM IMPACTS

The proposed Project as described in Section 1 of this report will have an estimated Average Daily wastewater generation of 88,233 GPD, (0.09 MGD) as shown in Table 1 which follows.

Table 1: ESTIMATED CHANGE IN SEWER GENERATION

Development	Average Daily Flow (MGD)*	Peak Dry Daily Flow (MGD)**	Peak Wet Daily Flow (MGD)***
Existing	0.04	0.08	0.10
Proposed	0.09	0.18	0.23
Change	+ 0.05	+ 0.10	+ 0.13

^{*} Per Appendix Table 2

6. ENVIRONMENTAL IMPACT

b) Project Impacts

At the completion of the three phase development, the Project will result in an increased wastewater flow as follows: Average Daily Flow 0.05 MGD, Peak Dry Daily Flow 0.10 MGD and Peak Wet Daily Flow of 0.13 MGD.

8. LEVEL OF SIGNIFICANCE AFTER MITIGATION

No significant unmitigated impacts to the regional sewer system would occur with the proposed project.

9. CUMULATIVE IMPACTS

The proposed project, in conjunction with the 35 related projects identified in Table 5, do have a significant cumulative impact on waste water system capacities as the combined projects would result in an overall increase in sewage effluent.

No other portions of the report will be adversely impacted as a result of the reduced building program.

^{**} A factor of 2 is used to adjust Average Daily Flow Rate to Peak Dry Daily Flow Rate

^{***} A factor of 1.3 is used to adjust Peak Dry Daily Flow Rate to Peak Wet Daily Flow Rate

Table 2: AVERAGE DAILY WASTEWATER GENERATION

Facility Description	Quantity	Units	SFC Flow* Rate (GPD)	Flow (GPD)
EXISTING				
Hotel Rooms (formerly used as a nursing home)	142	Room	150/room	21,300
Office	25,709	sf	200/1000 sf	5,142
Retail	5,450	sf	100/1000 sf	545
Restaurant (5,640 sf) ***	184	seats	50/seat	9,200
Parking Structure	7,500	sf	25/1000 sf	188
Total Flow				36,375
PROPOSED				
Condominium, (2 Bdrm Unit)	2	D.U.	200/D.U.	400
Condominium, (3 Bdrm Unit)	3	D.U.	250/D.U.	750
Hotel Rooms	156	Room	150/room	23,400
Retail	26,628	sf	100/1000 sf	2,663
Restaurant (20,500 sf) ***	667	Seats	50/seat	33,350
Restaurant outdoor seating (5,256sf) ***	171	Seats	50/seat	8,550
Office	69,726	sf	200/1000sf	13,945
Parking Structure	207,017	sf	25/1000 sf	5,175
Total Flow				88,233
Less Existing Use				-36,375
Less Additional Conservation**				-17,647
Total Wastewater Flow Increase				34,211

^{*}Determined per Los Angeles County Sanitation District Estimated Average Daily Sewage Flows for Various Occupancy.

Table 3: PROPOSED PEAK DAILY WASTEWATER GENERATION

Average	Peak Dry	Peak Wet
Daily Flow	Daily Flow	Daily Flow
(MGD)*	(MGD)**	(MGD)***
0.09	0.18	0.23

^{*}Per Table 2

^{** 20%} water conservation due to use of water efficient plumbing fixtures.

^{***} Assume 65% of area used for seating and 1 seat per 20 sf for restaurant quantity estimate

^{**} A factor of 2 is used to adjust Average Daily Flow to Peak Dry Daily Flow Rate

^{***} A factor of 1.3 is used to adjust Peak Dry Daily Flow Rate to Peak Wet Daily Flow Rate

EIR WATER SYSTEM TECHNICAL REPORT

2. DESCRIPTION OF THE PROJECT

The 80% hospitality project alternative is identical to the 100% program with the following differences:

- The office space has been decreased from 103,410 square feet to 69,726 square feet.
- The restaurant space has been decreased from 35,091 square feet to 20,500 square feet. The outdoor seating has decreased from 5,280 square feet to 5,256 square feet.
- The parking structure has been decreased from 239,385 square feet to 207,017 square feet.
- The retail space has been increased from 22,410 square feet to 26,628 square feet.

Tables 1, 2 & 3 have been revised per the revisions noted above and follow in this report.

5. ENVIRONMENTAL IMPACTS

b) Project Impacts

The proposed Project as described in Section 2 of this report will have an estimated Average Daily water use of 112,938 GPD, (0.11 MGP) as shown in Table 1.4 which follows.

Table 1.4: ESTIMATED CHANGE IN WATER USE

Development	Average Daily Flow (MGD)*	Peak Dry Daily Flow (MGD)**	Peak Wet Daily Flow (MGD)***
Existing	0.04	0.08	0.10
Proposed	0.11	0.22	0.29
Change	+ 0.07	+ 0.14	+ 0.19

^{*} Per Appendix Table 2

^{**} A factor of 2 is used to adjust Average Daily Flow Rate to Peak Dry Daily Flow Rate

*** A factor of 1.3 is used to adjust Peak Dry Daily Flow Rate to Peak Wet Daily Flow
Rate

At the completion of the three phase development, the Project will result in an increased water use demand as follows: Average Daily Flow 0.07 MGD, Peak Dry Daily Flow 0.14 MGD and Peak Wet Daily Flow of 0.19 MGD.

i) Project Design Features

See Appendix Table 2 for proposed estimated water use and see Table 3 for estimated peak daily flow of 0.29 MGD.

6. LEVEL OF IMPACT AFTER MITIGATION

The project would neither conflict with water supply planning undertaken by the applicable water district nor create a demand that would exceed existing water supply entitlements. Consequently, no significant unmitigated impacts to the regional water supply would occur with the proposed project.

7. CUMULATIVE IMPACTS

The proposed project, in conjunction with the 35 related projects identified in Table 4 in the Appendix, do have a significant cumulative impact on water system capacities as the combined projects would result in an overall increase in water usage. While the proposed project would not result in a project specific significant impact to existing water system facilities or available capacities, the overall increase in water usage through continued development of the area would impact existing capacities. It is assumed that this impact will be minimized since other known development projects will be required to employ water conservation measures that are similar to those proposed on this project.

No other portions of the report will be adversely impacted as a result of the reduced building program.

Table 2: ESTIMATED INCREASE IN WATER USE

			Water Use	Water Use		
Facility Description		Quantity	Units	Rate (GPD) ¹	GPD	acre-ft/yr
EXISTING						
	Bank / Office	25,709	sf	200/1000 sf	5,142	5.8
	Hotel Rooms (formerly used as					
	a nursing home with water					
	generation of 150 gpd/room)	142	Room	150/room	21,300	23.9
	Retail	5,450	sf	100/1000 sf	545	0.6
	Restaurant/Cafeteria (5,650 sf) ⁴	184	seats	50/seat	9,200	10.3
	Parking Structure	7,500	sf	25/1000 sf	188	0.2
				Subtotal	36,375	40.7
PROPOSED						
	Outdoor Water Use ²				24,705	27.7
	Office	69,726	sf	200/1000sf	13,945	15.6
	Condominium,(2 Bdrm Unit)	2	D.U.	200/D.U.	400	0.4
	Condominium,(3 Bdrm Unit)	3	D.U.	250/D.U.	750	8.0
	Hotel Rooms	156	Room	150/room	23,400	26.2
	Retail	26,628	sf	100/1000 sf	2,663	3.0
	Restaurant (20,500 sf) ⁴	667	Seats	50/seat	33,350	37.4
	Restaurant outdoor seating	171	Seats	50/seat	8,550	
	(5,256sf) ***					9.6
	Parking Structure	207,017	sf	25/1000 sf	5,175	5.8
				Subtotal	112,938	126.5
Less Existing Use				-36,375	-40.7	
Less Additional Conservation ³				-22,588	-25.3	
				Use Increase	58,649	60.5

⁽¹⁾ Determined per Los Angeles County Design Guideline Estimated Average Daily Sewage Flows for Various Occupancy, per Table 4.

- (2) Estimated to be 28% of indoor usage for commercial use, 18% for multi-family residential.
- (3) Water Conservation due to additional conservation commitments agreed to by the developer (20%)
- (4) Assume 65% of area is used for seating and 1 seat per 20 sf for restaurant quantity estimate

Table 3: PROPOSED DOMESTIC WATER DEMAND

Average Daily Flow (MGD)*	Peak Dry Daily Flow (MGD)**	Peak Wet Daily Flow (MGD)***
0.11	0.22	0.29

^{*} Per Table 2

^{**} A factor of 2 is used to adjust Average Daily Flow Rate to Peak Dry Daily Flow Rate

^{***} A factor of 1.3 is used to adjust Peak Dry Daily Flow Rate to Peak Wet Daily Flow Rate

EIR WASTEWATER SYSTEM HOSPITALITY OPTION ALTERNATIVE 4

Table 2: AVERAGE DAILY WASTEWATER GENERATION

Facility Description	Quantity	Units	SFC Flow* Rate (GPD)	Flow (GPD)
EXISTING				
Hotel Rooms (formerly used as a nursing home)	136	Room	150/room	20,400
Office	24,885	sf	200/1000 sf	4,977
Retail	5,371	sf	100/1000 sf	537
Restaurant (5,640 sf) ***	184	seats	50/seat	9,200
Parking Structure	7,500	sf	25/1000 sf	188
Total Flow				35,302
PROPOSED				
Hotel Rooms	100	Room	150/room	15,000
Retail	14,500	sf	100/1000 sf	1,450
Restaurant (8,000 sf) ***	260	Seats	50/seat	13,000
Office	65,900	sf	200/1000sf	13,180
Parking Structure	207,017	sf	25/1000 sf	5,175
Total Flow				47,805
Less Existing Use				-35,302
Less Additional Conservation**				-9,561
Total Wastewater Flow Increase				2,942

^{*}Determined per Los Angeles County Sanitation District Estimated Average Daily Sewage Flows for Various Occupancy.

Table 3: PROPOSED PEAK DAILY WASTEWATER GENERATION

Average	Peak Dry	Peak Wet
Daily Flow	Daily Flow	Daily Flow
(MGD)*	(MGD)**	(MGD)***
0.05	0.10	0.13

^{*}Per Table 2

^{** 20%} water conservation due to use of water efficient plumbing fixtures.

^{***} Assume 65% of area used for seating and 1 seat per 20 sf for restaurant quantity estimate

^{**} A factor of 2 is used to adjust Average Daily Flow to Peak Dry Daily Flow Rate

^{***} A factor of 1.3 is used to adjust Peak Dry Daily Flow Rate to Peak Wet Daily Flow Rate

EIR WATER SYSTEM HOSPITALITY OPTION ALTERNATIVE 4

Table 2: ESTIMATED INCREASE IN WATER USE

E914 D	mtion —	O	Water Use	Water Use		
Facility Description		Quantity	Units	Rate (GPD) ¹	GPD	acre-ft/yr
EXISTING						
	Bank / Office	24,885	sf	200/1000 sf	4,977	5.6
	Hotel Rooms (formerly used as a nursing home with water					
	generation of 150 gpd/room)	136	Room	150/room	20,400	22.9
	Retail	5,371	sf	100/1000 sf	537	0.6
	Restaurant/Cafeteria (5,640 sf) ⁴	184	seats	50/seat	9,200	10.3
	Parking Structure	7,500	sf	25/1000 sf	188	0.2
				Subtotal	35,302	39.6
PROPOSED						
	Outdoor Water Use ²				13,385	15.0
	Office	65,900	sf	200/1000sf	13,180	14.8
	Hotel Rooms	100	Room	150/room	15,000	16.8
	Retail	14,500	sf	100/1000 sf	1,450	1.6
	Restaurant (8,000 sf) ⁴	260	Seats	50/seat	13,000	14.6
	Parking Structure	207,017	sf	25/1000 sf	5,175	5.8
				Subtotal	61,190	68.6
			Le	ess Existing Use	-35,302	-39.6
Less Additional Conservation ³			-12,238	-13.7		
		Total Pot	table Wate	er Use Increase	13,650	15.3

- (1) Determined per Los Angeles County Design Guideline Estimated Average Daily Sewage Flows for Various Occupancy, per Table 4.
- (2) Estimated to be 28% of indoor usage for commercial use, 18% for multi-family residential.
- (3) Water Conservation due to additional conservation commitments agreed to by the developer (20%)
- (4) Assume 65% of area is used for seating and 1 seat per 20 sf for restaurant quantity estimate

Table 3: PROPOSED DOMESTIC WATER DEMAND

Average Daily Flow (MGD)*	Peak Dry Daily Flow (MGD)**	Peak Wet Daily Flow (MGD)***
0.06	0.12	0.16

^{*} Per Table 2

^{**} A factor of 2 is used to adjust Average Daily Flow Rate to Peak Dry Daily Flow Rate

^{***} A factor of 1.3 is used to adjust Peak Dry Daily Flow Rate to Peak Wet Daily Flow Rate