



Advanced Environmental Landscape
Design & Consulting, LLC

CSLB C-27 Lic#708716
PO Box 8296, Alta Loma, CA 91737
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www.aelandscapedesign.com

WATER MANAGEMENT **WATER ANALYSIS & RECOMMENDATIONS**

Property Name: Plaza at Sierra
Report Dated: 11/06/2017

HIGH PRIORITY RECOMMENDATIONS

High Priority Recommendations & Preventative Maintenance

WEBSITE LOGIN INFORMATION

Visit www.aelandscapedesign.com/nationalcore

Enter Password- watercore

1. **01/21/2016: Adjust Water Pressure:** Please refer to **Pressure Testing** on this report and Water Pressure Tutorial (see website login information at the top of the recommendations) and adjust the buildings with high pressure. Ideal building pressure is 45-65 PSI.
 - a. Please use the Building Inspection Worksheet to record new pressure readings. Please email the Building Inspection Worksheet to water@aelandscapedesign.com when complete.

WATER USAGE ANALYSIS SUMMARY

(See individual meter reports for more detailed information)

DOMESTIC

Meter# 1: Daily Average, Projected Monthly Average, and current water bill are each below budget.

Meter# 2: Daily Average and Projected Monthly Average, and current water bill are each below budget.

LANDSCAPE

Landscape System:

Irrigation Map: Map has been uploaded to website.

Weather Based Irrigation Controller: Hunter I-Core W/Solar Sync, installed 11/09/2011

Precision Nozzles: Precision Nozzles installed 08/01/2014

Turf Removal: Water usage is minimal; do not recommend removal at this time.

Controller is in compliance: Controller is not currently, please see notes in Landscape description.

“Save Water Today, So We Have Water Tomorrow”



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Landscape Usage:

Meter# 3: Daily Average, Projected Monthly and Recent Water bill are all above budget. Property was suffering from an Irrigation leak which has since been repaired. Water bill reflects loss of water during leak. We will continue to monitor and will update after next billing cycle.

Pressure Testing:

In order to ensure that each resident is receiving optimal water pressure, we have recorded the building psi (pounds per square inch). Desirable water pressure is between 45 and 75 psi. High pressure can cause loud pipes, pinhole leaks in joints, and water hammering; pipes loudly banging inside of walls due to air in the water lines. While low pressure could be a sign of multiple problems; mineral deposits in pipes, leaks, or a faulty pressure regulator.

Building **16927** pressure is at 60 PSI. [Building pressure reading is 60 PSI, pressure is average, no concern.](#)

Building numbers **16929-16999** are 90 PSI. [\(See recommendations\).](#)

“Save Water Today, So We Have Water Tomorrow”

Meter Summary Coversheet

Property Name **Plaza at Sierra**

Meter ID	Account Number	Meter Number(s)	Meter Type
1	3-5-164-4921-0-1	42556435	Domestic
2	3-5-164-4932-0-1	45313304	Domestic
3	3-5-164-4932-2-1	38848048	Landscape
4	3-5-903-4926-5-1	69648164	Fire Service
5	3-5-903-4932-5-1	10084596	Fire Service

Water Meter Inspection and Evaluation

Report prepared by Advanced Environmental Landscape Design & Consulting, LL

METER ID# 1

Property Name	Plaza at Sierra		
Meter Number	42556435	Meter Type	Domestic
Account Number	3-5-164-4921-0-1	Meter Type	2"

REPORT DATED
11/3/2017

Backflow Details: Designated Backflow Size 2" Pressure Regulator?

DOMESTIC ANALYSIS

Each meter services different types of buildings, water features, etc. The following budgets have been created for each type of coverage below:

Coverage Type	Multi-Unit Building	Multi-Unit Building	Pool	Water Feature	
Description	16927 (1 BDR)	16927 (2 BDR)	SPA	FOUNTAIN	TOTALS
Units Served	22	9	100	200	331
Budget/Month/Unit	9	14	0.0249	0.0249	
Daily Budget Total	6.51	4.14	0.08	0.16	10.9
Monthly Budget Total	198.00	126.00	2.49	4.98	331.5

The following calculations are based on the data collected from the physical meter readings and water bills:

		Projected vs. Actual Water Bill Analysis					
Physical Daily-Average	2.473	Projected		Most Recent			
			Tier 1 @	\$3.98	75	\$298.13	73
Physical Monthly-Average	75.22		Tier 2 @				
			Tier 3 @				
			Tier 4 @				
			Tier 5 @				
			WATER CONSUMPTION TOTALS		75	\$298.13	73
		Service Charge				\$134.84	
		PUC Surcharge @.14				\$6.09	
		ADJUSTMENT BY WMT				\$0.03	
		TOTAL USAGE & CHARGES		\$298.13		\$431.14	

PHYSICAL METER READINGS

Date & Time	Meter Reading	Reading Source	Usage (hcf)	Usage (gallons)	Days in Cycle	Daily Average (hcf)	Hours in Cycle	Hourly Average (hcf)
10/31/2017 12:48 PM	993,110.0	RST	37.10	27,750.80	15	2.473	362	0.102
10/16/2017 10:00 AM	989,400.0	WB	12.00	8,976.00	5	2.400	116	0.103
10/11/2017 2:13 PM	988,200.0	RST	61.00	45,628.00	27	2.259	652	0.094
9/14/2017 10:00 AM	982,100.0	WB	29.00	21,692.00	13	2.231	312	0.093
9/1/2017 10:00 AM	979,200.0	RST	50.00	37,400.00	18	2.778	432	0.116
8/14/2017 10:00 AM	974,200.0	WB	34.91	26,112.68	13	2.685	314	0.111
8/1/2017 8:44 AM	970,709.0	RST	37.09	27,743.32	15	2.473	358	0.104
7/17/2017 10:00 AM	967,000.0	WB	29.00	21,692.00	12	2.417	287	0.101
7/5/2017 11:55 AM	964,100.0	RST	56.00	41,888.00	21	2.667	505	0.111
6/14/2017 10:00 AM	958,500.0	WB	18.00	13,464.00	8	2.250	189	0.095

This report was prepared by Advanced Environmental Landscape Design & Consulting, LLC. If you have any questions regarding this report, please contact us at (909) 980-8300 or water@aelandscaped

Water Meter Inspection and Evaluation

Report prepared by Advanced Environmental Landscape Design & Consulting, LL

METER ID# 2

Property Name	Plaza at Sierra		
Meter Number	45313304	Meter Type	Domestic
Account Number	3-5-164-4932-0-1	Meter Type	2"

REPORT DATED
11/3/2017

Backflow Details: Designated Backflow Size 2" Pressure Regulator?

DOMESTIC ANALYSIS

Each meter services different types of buildings, water features, etc. The following budgets have been created for each type of coverage below:

Coverage Type	Multi-Unit Building	Multi-Unit Building	Multi-Unit Building	Pool & Spa	
Description	16929-16999	(1BDR)	(2BDR)	POOL AND SPA	TOTALS
Units Served	59	50	9	1039	1,157
Budget/Month/Unit		9	14	0.0249	
Daily Budget Total		14.79	4.14	0.85	19.8
Monthly Budget Total		450.00	126.00	25.87	601.9

The following calculations are based on the data collected from the physical meter readings and water bills:

		Projected vs. Actual Water Bill Analysis				
Physical Daily-Average	3.840	Projected		Most Recent		
			Tier 1 @ \$3.98	117	\$465.08	118
Physical Monthly-Average	116.80	Tier 2 @				
		Tier 3 @				
		Tier 4 @				
		Tier 5 @				
		WATER CONSUMPTION TOTALS		117	\$465.08	118
	Service Charge		\$136.20		\$134.84	
	PUC Surcharge @ .14				\$8.67	
	ADJUSTMENT BY WMT				\$0.03	
	TOTAL USAGE & CHARGES		\$601.28		\$612.59	

PHYSICAL METER READINGS

Date & Time	Meter Reading	Reading Source	Usage (hcf)	Usage (gallons)	Days in Cycle	Daily Average (hcf)	Hours in Cycle	Hourly Average (hcf)
10/31/2017 12:45 PM	1,743,260.0	RST	57.60	43,084.80	15	3.840	362	0.159
10/16/2017 10:00 AM	1,737,500.0	WB	17.00	12,716.00	5	3.400	116	0.147
10/11/2017 2:11 PM	1,735,800.0	RST	101.00	75,548.00	27	3.741	652	0.155
9/14/2017 10:00 AM	1,725,700.0	WB	54.00	40,392.00	13	4.154	312	0.173
9/1/2017 10:00 AM	1,720,300.0	RST	71.00	53,108.00	18	3.944	432	0.164
8/14/2017 10:00 AM	1,713,200.0	WB	56.00	41,888.00	13	4.308	314	0.178
8/1/2017 8:45 AM	1,707,600.0	RST	63.00	47,124.00	15	4.200	358	0.176
7/17/2017 10:00 AM	1,701,300.0	WB	54.00	40,392.00	12	4.500	286	0.189
7/5/2017 12:00 PM	1,695,900.0	RST	91.00	68,068.00	21	4.333	506	0.180
6/14/2017 10:00 AM	1,686,800.0	WB	37.00	27,676.00	13	2.846	309	0.120

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Water Meter Inspection and Evaluation

Report prepared by Advanced Environmental Landscape Design & Consulting, LLC

METER ID# 3

Property Name	Plaza at Sierra		
Meter Number	38848048	Meter Type	Landscape
Account Number	3-5-164-4932-2-1	Meter Type	2"

Backflow Details: Designated Backflow Size 3" Pressure Regulator?

REPORT DATED
11/3/2017

LANDSCAPE ANALYSIS

The following calculations are based on the data collected from the physical meter readings and water bills:

	MAWA Analysis
Current ETo (Monthly)	7.21
Monthly Budget	297.18

Allocated S/F (Landscape) 71,040
 WBIC (Weather Based Irrigation Controller)
 WBIC-MAKE/MODEL Hunter I-Core W/Solar Sync
 PRECISION NOZZLES
 DROUGHT TOLERANT LANDSCAPE

Projected vs. Actual Water Bill Analysis

	Projected		Most Recent	
Tier 1 @ \$3.98	328	\$1,303.80	334	\$1,327.65
Tier 2 @				
Tier 3 @				
Tier 4 @				
Tier 5 @				
WATER CONSUMPTION TOTALS	328	\$1,303.80	334	\$1,327.65
Service Charge		\$136.20		\$134.84
PUC Surcharge @ .14				\$20.99
ADJUSTMENT BY WMT				\$0.10
TOTAL USAGE & CHARGES		\$1,440.00		\$1,483.58

PHYSICAL METER READINGS

Date & Time	Meter Reading	Reading Source	Usage (hcf)	Usage (gallons)	Days in Cycle	Daily Average (hcf)	Hours in Cycle	Hourly Average (hcf)
10/31/2017 12:41 PM	2,437,100.0	RST	164.00	122,672.00	15	10.933	362	0.453
10/16/2017 10:00 AM	2,420,700.0	WB	42.00	31,416.00	5	8.400	116	0.362
10/11/2017 2:10 PM	2,416,500.0	RST	292.00	218,416.00	27	10.815	652	0.448
9/14/2017 10:00 AM	2,387,300.0	WB	147.00	109,956.00	13	11.308	312	0.471
9/1/2017 10:00 AM	2,372,600.0	RST	191.00	142,868.00	18	10.611	432	0.442
8/14/2017 10:00 AM	2,353,500.0	WB	133.00	99,484.00	13	10.231	314	0.424
8/1/2017 8:46 AM	2,340,200.0	RST	144.00	107,712.00	15	9.600	358	0.402
7/17/2017 10:00 AM	2,325,800.0	WB	100.00	74,800.00	12	8.333	286	0.350
7/5/2017 12:01 PM	2,315,800.0	RST	152.00	113,696.00	21	7.238	506	0.300
6/14/2017 10:00 AM	2,300,600.0	WB	59.00	44,132.00	8	7.375	189	0.312
6/6/2017 1:47 PM	2,294,700.0	RST	123.00	92,004.00	25	4.920	603	0.204

This report was prepared by Advanced Environmental Landscape. If you have any questions regarding this report please contact us at (909) 980-8300 or water@a landscapedesign.com

Water Meter Inspection and Evaluation

Report prepared by Advanced Environmental Landscape Design & Consulting, LLC

METER ID# 3

5/12/2017	10:00 AM	2,282,400.0	WB	44.00	32,912.00	11	4.000	264	0.167
5/1/2017	10:17 AM	2,278,000.0	RST	73.00	54,604.00	17	4.294	408	0.179
4/14/2017	10:00 AM	2,270,700.0	WB	58.00	43,384.00	14	4.143	337	0.172
3/31/2017	9:59 AM	2,264,900.0	RST	55.00	41,140.00	17	3.235	407	0.135
3/14/2017	10:00 AM	2,259,400.0	WB	13.00	9,724.00	13	1.000	311	0.042
3/1/2017	11:16 AM	2,258,100.0	RST	17.00	12,716.00	19	0.895	457	0.037
2/10/2017	10:00 AM	2,256,400.0	WB	0.00	0.00	9	0.000	217	0.000
2/1/2017	9:45 AM	2,256,400.0	RST	9.00	6,732.00	33	0.273	791	0.011
12/30/2016	10:17 AM	2,255,500.0	RST	70.00	52,360.00	18	3.889	432	0.162
12/12/2016	10:00 AM	2,248,500.0	WB	58.00	43,384.00	11	5.273	266	0.218
12/1/2016	8:55 AM	2,242,700.0	RST	112.00	83,776.00	17	6.588	406	0.276
11/14/2016	10:00 AM	2,231,500.0	WB	73.00	54,604.00	13	5.615	313	0.233
11/1/2016	9:51 AM	2,224,200.0	RST	123.00	92,004.00	15	8.200	359	0.343
10/17/2016	10:00 AM	2,211,900.0	WB	174.00	130,152.00	17	10.235	405	0.430
9/30/2016	1:16 PM	2,194,500.0	RST	134.00	100,232.00	15	8.933	363	0.369
9/15/2016	10:00 AM	2,181,100.0	WB	73.00	54,604.00	8	9.125	188	0.388
9/7/2016	2:00 PM	2,173,800.0	RST	254.00	189,992.00	23	11.043	556	0.457
8/15/2016	10:00 AM	2,148,400.0	WB	148.00	110,704.00	14	10.571	336	0.440
8/1/2016	10:27 AM	2,133,600.0	RST	188.00	140,624.00	17	11.059	408	0.461
7/15/2016	10:00 AM	2,114,800.0	WB	75.00	56,100.00	10	7.500	240	0.313
7/5/2016	10:22 AM	2,107,300.0	RST	152.00	113,696.00	21	7.238	504	0.302
6/14/2016	10:00 AM	2,092,100.0	WB	48.00	35,904.00	13	3.692	314	0.153
6/1/2016	8:55 AM	2,087,300.0	RST	93.00	69,564.00	19	4.895	454	0.205
5/13/2016	10:00 AM	2,078,000.0	WB	47.00	35,156.00	11	4.273	264	0.178
5/2/2016	10:12 AM	2,073,300.0	RST	62.00	46,376.00	14	4.429	330	0.188
4/18/2016	4:00 PM	2,067,100.0	RST	11.00	8,228.00	4	2.750	102	0.108
4/14/2016	10:00 AM	2,066,000.0	WB	96.00	71,808.00	31	3.097	744	0.129
3/14/2016	10:00 AM	2,056,400.0	WB	33.00	24,684.00	11	3.000	265	0.125
3/3/2016	9:30 AM	2,053,100.0	RST	115.00	86,020.00	21	5.476	503	0.229
2/11/2016	10:00 AM	2,041,600.0	WB	23.00	17,204.00	7	3.286	168	0.137
2/4/2016	10:00 AM	2,039,300.0	RST	0.00	0.00	22	0.000	528	0.000
1/13/2016	10:00 AM	2,039,300.0	WB	0.00	0.00	9	0.000	215	0.000
1/4/2016	11:13 AM	2,039,300.0	RST	0.00	0.00	20	0.000	478	0.000
12/15/2015	1:28 PM	2,039,300.0	RST	0.00	0.00	1	0.000	27	0.000
12/14/2015	10:00 AM	2,039,300.0	WB	94.00	70,312.00	31	3.032	744	0.126
11/13/2015	10:00 AM	2,029,900.0	WB	176.00	131,648.00	29	6.069	696	0.253
10/15/2015	10:00 AM	2,012,300.0	WB	182.00	136,136.00	30	6.067	720	0.253
9/15/2015	10:00 AM	1,994,100.0	WB	159.00	118,932.00	32	4.969	768	0.207
8/14/2015	10:00 AM	1,978,200.0	WB	74.20	55,501.60	16	4.638	383	0.194
8/14/2015	10:00 AM	1,978,200.0	WB	74.20	55,501.60	16	4.638	383	0.194
8/14/2015	10:00 AM	1,978,200.0	WB	74.20	55,501.60	16	4.638	383	0.194
8/14/2015	10:00 AM	1,978,200.0	WB	74.20	55,501.60	16	4.638	383	0.194
7/29/2015	11:00 AM	1,970,780.2	WMT	33.10	24,758.80	7	4.729	167	0.198
7/22/2015	12:50 PM	1,967,470.2	WMT	0.00	0.00	1	0.000	20	0.000

This report was prepared by Advanced Environmental Landscape. If you have any questions regarding this report please contact us at (909) 980-8300 or water@a landscapedesign.com

Water Meter Inspection and Evaluation

Report prepared by Advanced Environmental Landscape Design & Consulting, LL

METER ID# 4

Property Name	Plaza at Sierra		
Meter Number	69648164	Meter Type	Fire Service
Account Number	3-5-903-4926-5-1	Meter Type	

REPORT DATED
11/3/2017

Backflow Details: Designated Backflow Size _____ Pressure Regulator?

DOMESTIC ANALYSIS

Each meter services different types of buildings, water features, etc. The following budgets have been created for each type of coverage below:

Coverage Type	Fire Service				
Description	Fire Service				TOTALS
Units Serviced					0
Budget/Month/Unit					
Daily Budget Total					0.0
Monthly Budget Total					0.0

The following calculations are based on the data collected from the physical meter readings and water bills:

		Projected vs. Actual Water Bill Analysis			
		Projected		Most Recent	
Physical Daily-Average	0.000	Tier 1 @	0	0	0
Physical Monthly-Average	0.00	Tier 2 @	0	0	0
		Tier 3 @	0	0	0
		Tier 4 @	0	0	0
		Tier 5 @			
		WATER CONSUMPTION TOTALS	0	\$0.00	0 \$0.00
		Service Charge		\$90.32	\$90.32
		PUC Surcharge		\$1.30	\$1.30
		TOTAL USAGE & CHARGES		\$91.62	\$91.62

PHYSICAL METER READINGS

Date & Time	Meter Reading	Reading Source	Usage (hcf)	Usage (gallons)	Days in Cycle	Daily Average (hcf)	Hours in Cycle	Hourly Average (hcf)
11/1/2017 10:00 AM	0.0	WB	0.00	0.00	N/A	N/A	N/A	N/A
10/1/2017 10:00 AM	0.0	WB	0.00	0.00	N/A	N/A	N/A	N/A
9/1/2017 10:00 AM	0.0	WB	0.00	0.00	N/A	N/A	N/A	N/A
8/1/2017 10:00 AM	0.0	WB	0.00	0.00	N/A	N/A	N/A	N/A
7/1/2017 10:00 AM	0.0	WB	0.00	0.00	N/A	N/A	N/A	N/A
6/1/2017 10:00 AM	0.0	WB	0.00	0.00	N/A	N/A	N/A	N/A
5/1/2017 10:00 AM	0.0	WB	0.00	0.00	N/A	N/A	N/A	N/A
4/1/2017 10:00 AM	0.0	WB	0.00	0.00	N/A	N/A	N/A	N/A
3/1/2017 10:00 AM	0.0	WB	0.00	0.00	N/A	N/A	N/A	N/A
2/1/2017 10:00 AM	0.0	WB	0.00	0.00	N/A	N/A	N/A	N/A

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Water Meter Inspection and Evaluation

Report prepared by Advanced Environmental Landscape Design & Consulting, LL

METER ID# 5

Property Name	Plaza at Sierra		
Meter Number	10084596	Meter Type	Fire Service
Account Number	3-5-903-4932-5-1	Meter Type	

REPORT DATED
11/3/2017

Backflow Details: Designated Backflow Size Pressure Regulator?

DOMESTIC ANALYSIS

Each meter services different types of buildings, water features, etc. The following budgets have been created for each type of coverage below:

Coverage Type	Fire Service				
Description	Fire Service				TOTALS
Units Serviced					0
Budget/Month/Unit					
Daily Budget Total					0.0
Monthly Budget Total					0.0

The following calculations are based on the data collected from the physical meter readings and water bills:

		Projected vs. Actual Water Bill Analysis			
		Projected		Most Recent	
Physical Daily-Average	0.000	Tier 1 @	0	0	0
Physical Monthly-Average	0.00	Tier 2 @	0	0	0
		Tier 3 @	0	0	0
		Tier 4 @	0	0	0
		Tier 5 @			
WATER CONSUMPTION TOTALS			0	\$0.00	0 \$0.00
Service Charge				\$90.32	\$90.32
PUC Surcharge				\$1.30	\$1.30
TOTAL USAGE & CHARGES				\$91.62	\$91.62

PHYSICAL METER READINGS

Date & Time	Meter Reading	Reading Source	Usage (hcf)	Usage (gallons)	Days in Cycle	Daily Average (hcf)	Hours in Cycle	Hourly Average (hcf)
11/1/2017 10:00 AM	0.0	WB	0.00	0.00	N/A	N/A	N/A	N/A
10/1/2017 10:00 AM	0.0	WB	0.00	0.00	N/A	N/A	N/A	N/A
9/1/2017 10:00 AM	0.0	WB	0.00	0.00	N/A	N/A	N/A	N/A
8/1/2017 10:00 AM	0.0	WB	0.00	0.00	N/A	N/A	N/A	N/A
7/1/2017 10:00 AM	0.0	WB	0.00	0.00	N/A	N/A	N/A	N/A
6/1/2017 10:00 AM	0.0	WB	0.00	0.00	N/A	N/A	N/A	N/A
5/1/2017 10:00 AM	0.0	WB	0.00	0.00	N/A	N/A	N/A	N/A
4/1/2017 10:00 AM	0.0	WB	0.00	0.00	N/A	N/A	N/A	N/A
3/1/2017 10:00 AM	0.0	WB	0.00	0.00	N/A	N/A	N/A	N/A
2/1/2017 10:00 AM	0.0	WB	0.00	0.00	N/A	N/A	N/A	N/A

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