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**ENERGY EXPENDITURE PLAN**

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***Child Care and Development Services***

2828 Fourth Street

Santa Monica, CA 90405

P: (310) 399-5865

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**PREPARED FOR:**

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California Energy Commission  
Energy Division  
Local Assistance and Financing Office, MS-23  
1516 Ninth Street  
Sacramento, Ca 95814



PREPARED ON:  
5/16/2017

## Table of Contents

Section 1: Facility Background.....	3
Child Care and Development Services.....	3
Utility Costs and Rate Schedules .....	4
Benchmarking.....	5
Section 2: Energy Efficiency Measures (EEM) Summary.....	6
Lighting Systems Retrofit.....	7
Appendix – A.....	8
School Schedules and Maps .....	8
Academic Calendar .....	9
Child Care and Development Services Map .....	10
Appendix – B.....	11
Energy Utilization Analysis .....	11
Appendix – C .....	14
Lighting Systems Audit.....	14

## Section 1: Facility Background

### Child Care and Development Services

Child Care and Development Services is located at 2828 Fourth Street in Santa Monica, CA 90405. It is a facility serving Santa Monica-Malibu Unified School district with child care and tutoring. The programs are run out of 2 permanent buildings. The total amount of occupied space is 37,999SF. For a complete map of the campus, see Appendix A.

The campus operates on an academic calendar that begins in late August and ends in late June. Winter Break is a two week break that begins at the end of December and goes to the first week of January. Spring Break is a one week break that begins in early-April. The programs are in session Monday through Friday, before and after school. For a complete academic calendar, refer to Appendix A.



### Utility Costs and Rate Schedules

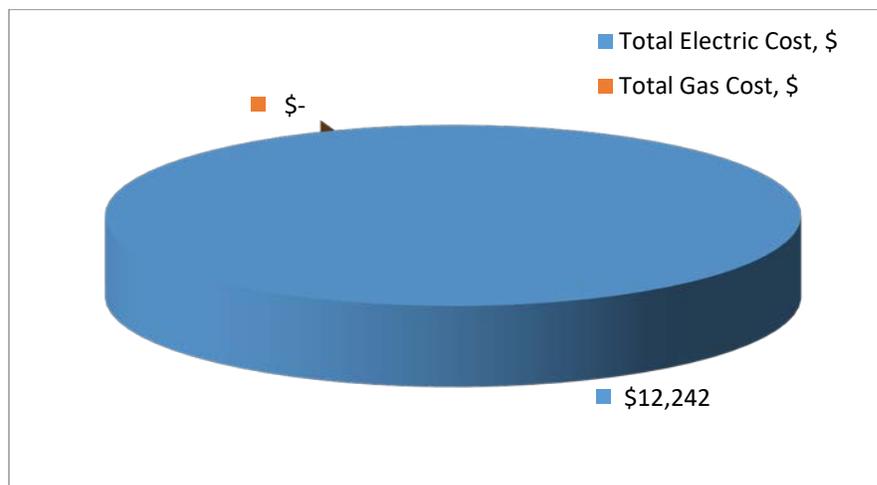
The Child Care and Development Services facilities receive electricity services from Southern California Edison (SCE) and does not receive gas services. Monthly utility data is considered separately for each utility meter and each energy type (electricity, natural gas, propane, diesel, and water).

The following is a list of the meters associated with each energy type utilized at Child Care and Development Services:

Account Number	Meter Number	Rate Schedule
3-039-8329-25	223000-015873	TOU-GS-1-B
3-001-1511-61	223000-016227	TOU-GS-1-A

Account Number	Meter Number	Rate Schedule
N/A	N/A	N/A

The utility data provided uses the data recovered from each of these meters during the period of July, 2015 to June, 2016. The cost comparison of Child Care and Development Services’s gas and electricity costs can be seen in the table below:



## Benchmarking

As part of the site evaluation we determined the Energy Utilization Analysis (EUA) to provide important information about the energy usage of the school. Listed in the table below is the Benchmarking Report for Child Care and Development Services:

Energy Use Intensity Calculator					
Electricity		Natural Gas		Other Fuels	
0.71	<i>W/SF</i>	0.00	<i>Therms/SF</i>	0.00	<i>Gals/SF</i>
2.02	<i>kWh/SF</i>	\$ 0.00	<i>Cost/SF</i>	\$ 0.00	<i>Cost/SF</i>
\$ 0.32	<i>Cost/SF</i>				
Energy Costs/SF/Year		\$ 0.32	Energy Use(Kbtu)/SF/Year		21.61

The main purpose of this report is to assess the current energy usage of Child Care and Development Services. Energy consumption is analyzed compared to the site's actual weather data expressed in Cooling Degree Days (CDD) & Heating Degree Days (HDD). Graphs comparing the energy consumption to the CDD and HDD can be found in Appendix B.

The Baseline Energy Utilization Analysis (EUA) report compiles the monthly energy data from all meters on site. The EUA is useful in identifying critical energy consuming benchmarks like kWh/SF, kBtu/SF, and Cost/SF for each fuel type and individual school site. This report is a great resource to have for identifying the lowest energy performing schools. The report ranking will present the schools that consume the most energy when compared to others within the district or other comparable districts. The considered school is rated at 2.02 kWh/SF/yr.

The baseline EUA summary of all the meters for Child Care and Development Services can be found in Appendix B.

## Section 2: Energy Efficiency Measures (EEM) Summary

Energy savings are based on the difference between annual energy use under existing conditions and annual energy use under proposed conditions. These annual energy savings, and the corresponding annual energy cost savings, are used to determine the cost-effectiveness of the projects. Demand savings are calculated as the different between the electricity demand of the existing equipment and electricity demand of proposed equipment. The table below shows the Energy Efficiency Measures proposed and the corresponding savings associated with them.

EEM Number	Energy Efficiency Measure	Demand Savings (kW)	Electricity Savings (kWH/yr)	Natural Gas or Fuel Savings (therms or gal/yr)	Annual Cost Savings (\$)	Rebates and Grants (\$)	Installed Measure Cost (\$)
Lighting	Lighting – Interior Fixture Retrofit – East	5	6,035		\$966.00	\$10,000.00	\$21,451.00
Lighting	Lighting – Exterior Fixture Retrofit – East	1	2,989		\$478.00	\$5,000.00	\$9,967.00
Lighting	Lighting – Interior Fixture Retrofit – West	3	6,212		\$994.00	\$5,000.00	\$11,672.00
Lighting	Lighting – Exterior Fixture Retrofit – West	1	3,212		\$514.00	\$0.00	\$7,862.00
Lighting	Lighting – Retrofit Interior Lamps to LED	1	1,271		\$203.00	\$0.00	\$3,315.00
	<b>Totals</b>	11	19,719		\$3,155.00	\$20,000.00	\$54,267.00

## Lighting Systems Retrofit

A significant portion of a facilities electrical costs comes from lighting, making lighting retrofits one of the quickest and simplest methods for reducing utility costs. In most cases the retrofits will result in improved light quality and reduced maintenance costs in addition to the estimated energy savings.

The method used for calculating energy savings is outlined below:

$$\underline{\text{Annual Saving, } \$ = (\text{Existing Watts} - \text{New Watts}) / 1000 \times \text{Hours/Year} \times \text{Utility Rate} \times N}$$

Where,

- Existing Watts* – Wattage rating for the existing (Baseline) light fixture
- New Watts* – New wattage rating for the existing light fixture
- Hours/Year* – Annual number of “burn-hours” (run hours for different areas; see detailed audit in Appendix C)
- Utility Rate* – Actual weighted composite utility rate, \$/kWh
- N* – Number of light fixtures of the particular type (see below & in Appendix C for the actual quantities).

The current interior lighting systems in the Child Care and Development Services buildings consist of a combination of 1<sup>st</sup> generation T-8, compact fluorescent, and incandescent lamps and fixtures. Following examination of the data collected, a full retrofit of the lighting system with LED and 4<sup>th</sup> generation T-8 lamps and fixtures is recommended.

The current exterior lighting systems in the Child Care and Development Services buildings consist of compact fluorescent, metal halide, high pressure sodium, incandescent and 1<sup>st</sup> generation T-8 lamps and fixtures. Following examination of the data collected, a full retrofit of the lighting system with LED lamps and fixtures is recommended.

This retrofit will generate more saving, electrical demand reduction and better payback than other Energy Conservation Measures such as HVAC replacements. Upon installment of the new system, the campus will conserve 10.259 kW and 19,719 kWh per year. The cost savings per year will be approximately \$3,155.09. A full detailed audit of the current lighting system implemented in the entire campus can be found in Appendix C.

## Appendix – A

### School Schedules and Maps

# Academic Calendar

**SANTA MONICA-MALIBU UNIFIED SCHOOL DISTRICT**  
**2016-2017 District Calendar**

Approved by the Board of Education: 3/19/15

July 2016					August 2016					September 2016				
M	T	W	Th	F	M	T	W	Th	F	M	T	W	Th	F
4	5	6	7	8	1	2	3	4	5	5	6	7	8	9
11	12	13	14	15	8	9	10	11	12	12	13	14	15	16
18	19	20	21	22	15	16	17	18	19	19	20	21	22	23
25	26	27	28	29	22	23	24	25	26	26	27	28	29	30
29	30	31												

October 2016					November 2016					December 2016				
M	T	W	Th	F	M	T	W	Th	F	M	T	W	Th	F
2	3	4	5	6	1	2	3	4	5	5	6	7	8	9
10	11	12	13	14	7	8	9	10	11	12	13	14	15	16
17	18	19	20	21	14	15	16	17	18	19	20	21	22	23
24	25	26	27	28	21	22	23	24	25	26	27	28	29	30
31					28	29	30							

January 2017					February 2017					March 2017				
M	T	W	Th	F	M	T	W	Th	F	M	T	W	Th	F
2	3	4	5	6	6	7	8	9	10	6	7	8	9	10
9	10	11	12	13	13	14	15	16	17	13	14	15	16	17
16	17	18	19	20	20	21	22	23	24	20	21	22	23	24
23	24	25	26	27	27	28				27	28	29	30	31
30	31													

April 2017					May 2017					June 2017				
M	T	W	Th	F	M	T	W	Th	F	M	T	W	Th	F
3	4	5	6	7	1	2	3	4	5	5	6	7	8	9
10	11	12	13	14	8	9	10	11	12	12	13	14	15	16
17	18	19	20	21	15	16	17	18	19	19	20	21	22	23
24	25	26	27	28	22	23	24	25	26	26	27	28	29	30
					29	30	31							

- Legend:**
- = First/Last Day of School
  - = Legal Holiday
  - = Local Holiday (schools/offices closed)
  - = School Recess (classes not in session)
  - = Pupil Free Day (no school for students)
  - = Elem. Pupil Free Day (no school -elem students)
  - = Sec. Pupil Free Day (no school -sec students)
  - = Minimum Day for all students
  - = Certificated Staff Development Days



**Employee Work Dates:**  
 Sept. 1, 2016-June 30, 2017: \* Classified 11-Month  
 \*must work 22 days in July/August, 2016  
 Aug. 8, 2016-June 21, 2017: Classified 10+10  
 Aug. 15, 2016-June 9, 2017: Classified 10-Month  
 Aug. 17, 2016-June 9, 2017: Certificated/184 Days  
 Aug. 18, 2016-June 9, 2017: Certif CDS/183 Days  
 Aug. 19, 2016-June 9, 2017: Classified School Year

Teacher Work Days: 184  
 Student Days: 180

1st Semester: Aug. 22 - Dec. 23 (84 days)  
 2nd Semester: Jan. 10 - June 9 (96 days)

**First Day of Instruction:**  
 - Monday, August 22, 2016

**Last Day of Instruction:**  
 - Friday, June 9, 2017

**Certificated Staff Development Days:**  
 (No Students)  
 - Wednesday, August 17, 2016  
 - Thursday, August 18, 2016

**HOLIDAYS:**  
 July 4: 4th of July Holiday  
 Sept. 5: Labor Day Holiday  
 Oct 3: Local Holiday  
 Oct 12: Local Holiday  
 Nov. 11: Veteran's Day Holiday  
 Nov. 24: Thanksgiving Holiday  
 Nov. 25: Legal Holiday (Acemission's Day observ)  
 Dec. 26, 27: Winter Holidays  
 Dec. 30, Jan 2: New Years Holidays  
 Jan 16: Martin Luther King Jr. Holiday  
 Feb. 20: Presidents' Day Holiday  
 Apr. 7: Local Holiday

Apr. 14: Legal Holiday (Lincoln's B'day observ)  
 May 29: Memorial Day Holiday

**SCHOOL RECESSES:**  
 Dec. 26 - Jan 6: Winter Recess  
 Apr 3 - Apr 14: Spring Recess

**PUPIL-FREE DAYS:**  
 Aug. 17: All Students  
 Aug. 18: All Students  
 Aug. 19: All Students  
 Nov. 4: Elementary Students Only  
 Jan. 9: Secondary Students Only

**MINIMUM DAYS:**  
 TK/Kindergarten: Aug. 22, Aug. 23, 30, Nov. 7, 8, 9, 10, 23, Dec. 23, May 25, June 9  
 Elementary: Aug. 22, 30, Sept. 6, Nov. 7, 8, 9, 10, 23, Dec. 23, May 25, June 9

Santa Monica Middle Schools: Sept. 8, Nov. 23, Dec. 23, Mar. 31, Apr. 27, June 8, June 9, +1 discretionary

Malibu MS/HS: Sept. 8, 15, Nov. 23, Dec. 21, 22, 23, March 9, June 6, 7, 8 + 1 discretionary

Samohi: Sept. 15, Dec. 20, 21, 22, 23, Mar. 9, June 5, 6, 7, 8

Olympic HS: Sept. 20, Nov. 23, Dec. 23, May 2, June 1, 2, 5, 6, 7, 8, 9

**Back to School Nights:**  
 Tues. Aug. 30 - Elem TK-2  
 Tues. Sept. 6 - Elem 3-5  
 Thurs. Sept. 8 - Middle School  
 Thurs. Sept. 15 - High School  
 Tues. Sept. 20 - Olympic HS

**Open House Nights:**  
 Thurs. May 25 - Elementary  
 Thurs. April 27 - SM Middle Schools  
 Thurs. March 9 - Malibu MS/HS and Samohi  
 Tues. May 2 - Olympic HS

**Promotions/Graduations:**  
 Wed. June 7 - Elementary  
 Fri. June 9 - Middle School  
 Thurs. June 8 - MMS 2:00 pm  
 Wed. May 31 - Olympic HS 5:30 pm

**Parent Conference Days (TK-SI):**  
 Nov. 4 - Nov. 10, 2016

**Testing Dates:** *expected, not confirmed*  
 AP Testing: May 1- May 12, 2017  
 STAR: April 20 - May 18, 2017  
 SBAC: April 20 - May 29, 2017

**TK/Kindergarten Roundup:**  
 Jan. 30 - Feb. 10, 2017

**Final Exams:**  
 Malibu MS/HS: Dec. 21-23, 2016  
 June 6-8, 2017  
 Samohi: Dec. 20-23, 2016  
 June 5-8, 2017

**Summer School:**  
 ISS: June 19-July 14, 2017  
 Credit Recovery: June 19-Jul 21, 2017  
 ESY: June 19-July 14, 2017

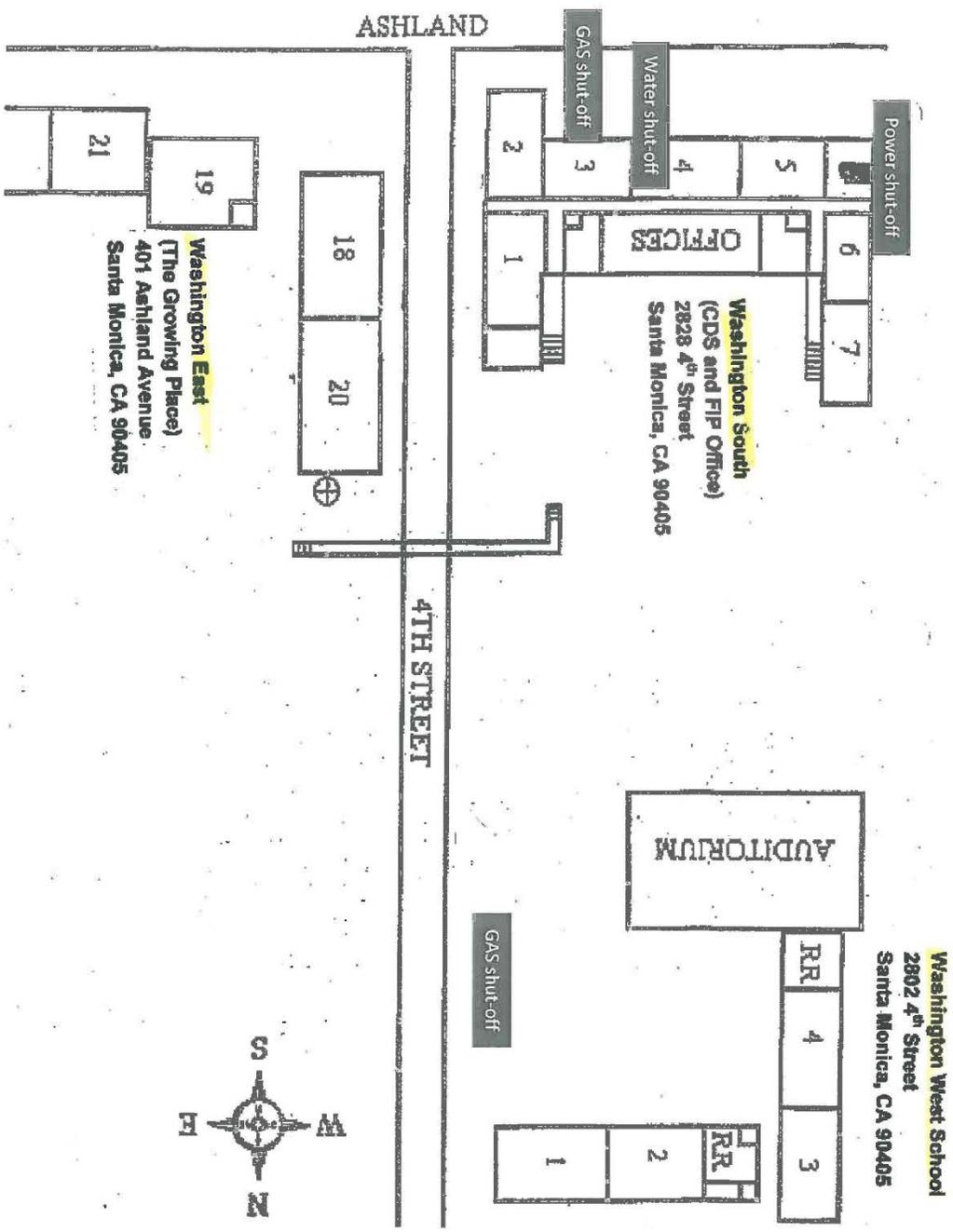
**TK-5 Grading Periods:**  
 Conference: Nov. 4, 2016  
 Winter Grading: Feb. 10, 2017  
 Spring Grading: June 9, 2017

**6-12 Grading Periods**  
 Aug. 22 - Sept. 30, 2016  
 Oct. 4 - Nov. 10, 2016  
 Nov. 14 - Dec. 23, 2016  
 Jan. 9 - Feb. 24, 2017  
 Feb. 27 - April 28, 2017  
 May 1 - June 9, 2017

Revised 3/5/15



Child Care and Development Services Map



## Appendix – B

### Energy Utilization Analysis

Customer Name: **Santa Monica-Malibu USD**

Facility Name: Washington

Facility Location: 2802 4th Street, Santa Monica, CA 90405

Sq. Ft. (conditioned space): 37,999

Billing Period

FROM: Jul-15

TO: Jun-16

Elec Utility Name: SCE

Natural Gas Utility Name: SCG

Account #	Meter #	Rate Schedule
2-07-030-4431	223000-015873	TOU-GS-1-B
2-07-030-4431	223000-016227	TOU-GS-1-A
0	0	0
0	0	0

Account #	Meter #	Rate Schedule
0	0	0
0	0	0
0	0	0
0	0	0

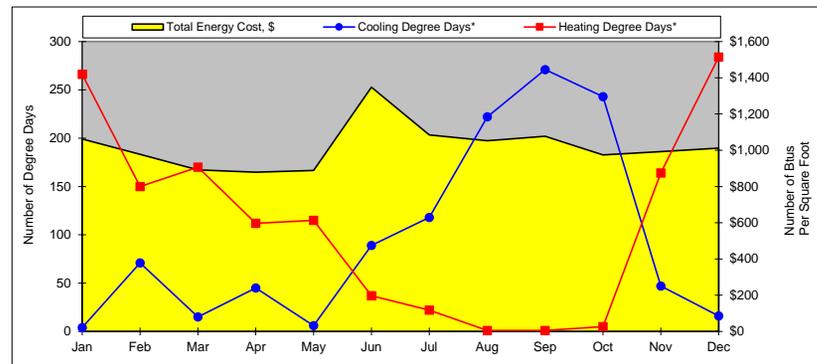
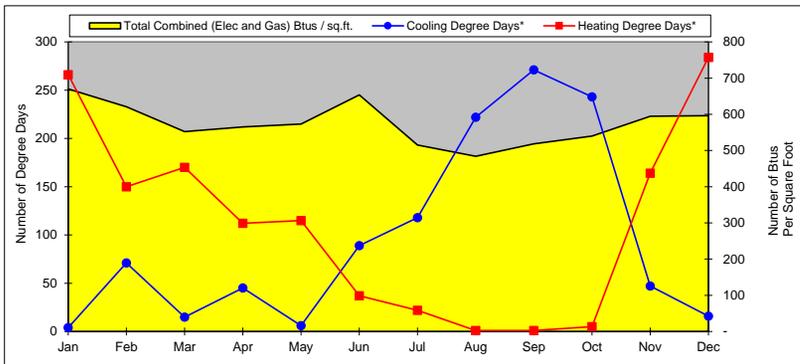
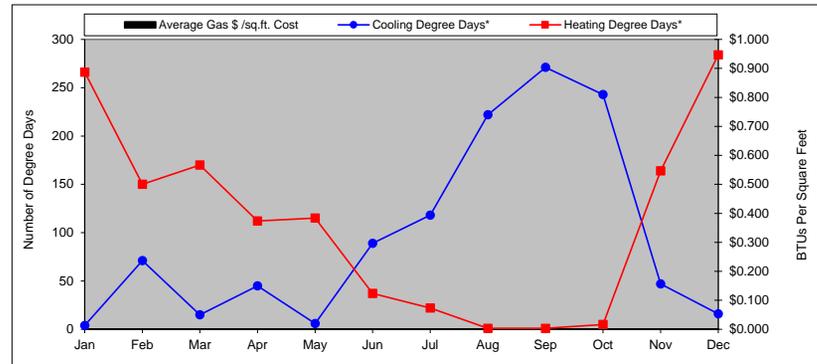
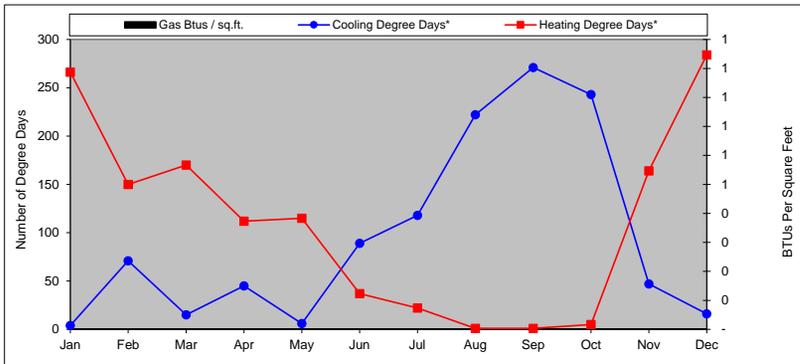
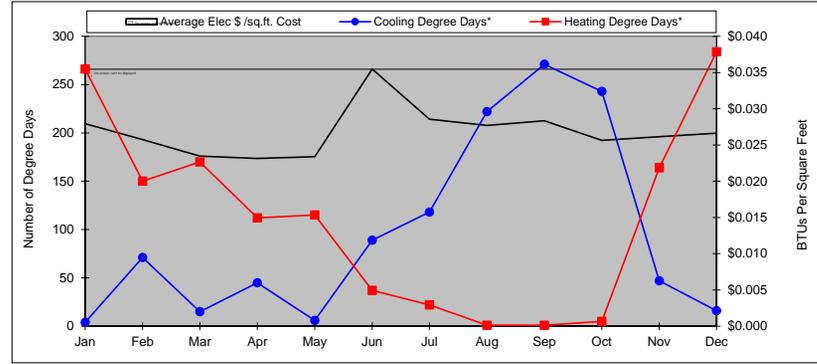
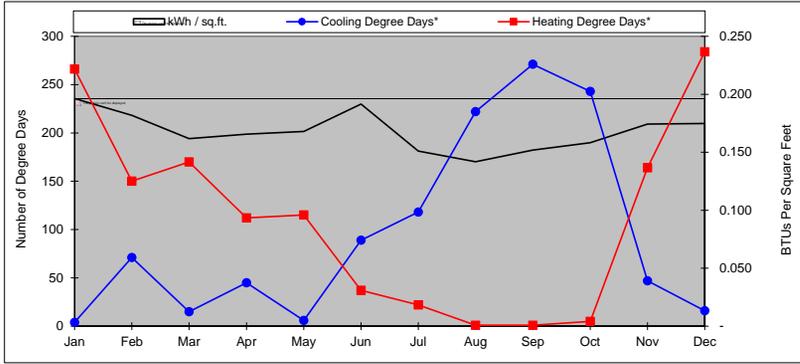
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL ANNUAL
Cooling Degree Days*	4	71	15	45	6	89	118	222	271	243	47	16	1,147
Heating Degree Days*	266	150	170	112	115	37	22	1	1	5	164	284	1,327
Days in Billing Period													
electric	29	32	30	29	32	30	29	29	32	30	33	30	365
natural gas	0	#DIV/0!											
<b>Electric Usage</b>													
kWh per Billing Cycle	7,460	6,912	6,146	6,290	6,383	7,278	5,737	5,389	5,772	6,009	6,621	6,639	76,636
\$ for kWh Billed	\$942	\$875	\$789	\$629	\$626	\$867	\$935	\$895	\$915	\$894	\$913	\$937	\$10,217
Max kW Billed	33	26	26	29	26	40	24	23	24	24	25	26	27
\$ for kW Billed	\$120	\$103	\$103	\$250	\$263	\$481	\$150	\$158	\$162	\$80	\$80	\$75	\$2,025
Total Electric Cost, \$	\$1,062	\$978	\$892	\$879	\$889	\$1,348	\$1,085	\$1,053	\$1,077	\$974	\$993	\$1,012	\$12,242
Ave. Daily Electric Cost, \$	\$37	\$31	\$30	\$30	\$28	\$45	\$37	\$36	\$34	\$32	\$30	\$34	\$ 34
Average \$/kWh Cost	\$0.142	\$0.141	\$0.145	\$0.140	\$0.139	\$0.185	\$0.189	\$0.195	\$0.187	\$0.162	\$0.150	\$0.152	\$ 0.160
Average Elec \$ /sq.ft. Cost	\$0.028	\$0.026	\$0.023	\$0.023	\$0.023	\$0.035	\$0.029	\$0.028	\$0.028	\$0.026	\$0.026	\$0.027	\$ 0.322
kWh / sq.ft.	0.196	0.182	0.162	0.166	0.168	0.192	0.151	0.142	0.152	0.158	0.174	0.175	2.02
<b>Natural Gas Usage</b>													
Therms per Billing Cycle	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Gas Cost, \$	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$ -
Ave. Daily Gas Cost, \$	#DIV/0!												
Average \$/therm Cost	#DIV/0!												
Average Gas \$ /sq.ft. Cost	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$ -
Gas Btus / sq.ft.	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Energy Usage</b>													
Combined (Elec and Gas) Btus / sq.ft.	670	621	552	565	573	654	515	484	518	540	595	596	6,883
Total Energy Cost, \$	\$1,062	\$978	\$892	\$879	\$889	\$1,348	\$1,085	\$1,053	\$1,077	\$974	\$993	\$1,012	\$12,242
Ave. Energy \$/sq.ft./period	\$0.03	\$0.03	\$0.02	\$0.02	\$0.02	\$0.04	\$0.03	\$0.03	\$0.03	\$0.03	\$0.03	\$0.03	\$0.32

\* Notes:

- 1) Heating degree days and cooling degree days are based on 65 F.
- 2) Heating degree days and cooling degree days are based on Santa Monica weather data.

Customer: Santa Monica-Malibu USD  
 Building: Washington

Energy Used from: Jul-15  
 to: Jun-16



## Appendix – C

### Lighting Systems Audit



School District: Santa Monica-Malibu USD - LED Option  
 Address: 0  
 0  
 School: CHILD DEVELOPMENT WASHINGTON EAST 2828 4TH ST.  
 School Address: WASHINGTON EAST 2828 4TH ST.  
 0

cost per kwh 0.16

LED Option

11.71 6.38 19,629.70 10,605.43 9,024.27 \$ 1,443.88

ORIGINAL AUDIT ID#	INTERIOR/EXT	SCHOOL DISTRICT	SCHOOL	ROOM	LIGHTING CODE (EXISTING)	ECM	PROPOSED FIXT QTY	EXIST WATT	PROP WATT	EXIST OPER HRS	PROP OPER HRS	EXISTING KW	PROPOSED KW	EXISTING KWH	PROPOSED KWH	SAVED KWH	ANN SAVINGS
2211	INTERIOR	NTA MONICA-MALIBU	CHILD DEVELOPMENT WASHINGTON EAST	MAIN OFFICE	T8-4'-32W-4L-EB/ISN-X-X	(LED)4L 12T8/4F/850/DIR, 97740 (1) QHE4	7	112	64	2185	2185	0.784	0.448	1713.04	978.88	734.16	\$ 117.47
2212	INTERIOR	NTA MONICA-MALIBU	CHILD DEVELOPMENT WASHINGTON EAST	MAIN OFFICE	CF/S-TWST-13W-1L-SELF-X-X	(LED)1L A19 8W 5000K E26, 455600	2	13	8	2185	2185	0.026	0.016	56.81	34.96	21.85	\$ 3.50
2213	INTERIOR	NTA MONICA-MALIBU	CHILD DEVELOPMENT WASHINGTON EAST		T8-4'-32W-4L-EB/ISN-X-X	(LED)4L 12T8/4F/850/DIR, 97740 (1) QHE4	6	112	64	1816	1816	0.672	0.384	1220.352	697.344	523.008	\$ 83.68
2214	INTERIOR	NTA MONICA-MALIBU	CHILD DEVELOPMENT WASHINGTON EAST		CF/S-TWST-13W-1L-SELF-X-X	(LED)1L A19 8W 5000K E26, 455600	2	13	8	1816	1816	0.026	0.016	47.216	29.056	18.16	\$ 2.91
2215	INTERIOR	NTA MONICA-MALIBU	CHILD DEVELOPMENT WASHINGTON EAST		T8-4'-32W-2L-EB/ISN-X-X	(LED)2L 12T8/4F/850/DIR, 97740 (1) QHE2	1	59	32	1816	1816	0.059	0.032	107.144	58.112	49.032	\$ 7.85
2216	INTERIOR	NTA MONICA-MALIBU	CHILD DEVELOPMENT WASHINGTON EAST		T8-4'-32W-4L-EB/ISN-X-X	(LED)4L 12T8/4F/850/DIR, 97740 (1) QHE4	4	112	64	1816	1816	0.448	0.256	813.568	464.896	348.672	\$ 55.79
2217	INTERIOR	NTA MONICA-MALIBU	CHILD DEVELOPMENT WASHINGTON EAST		T8-4'-32W-2L-EB/ISN-X-X	(LED)2L 12T8/4F/850/DIR, 97740 (1) QHE2	3	59	32	1816	1816	0.177	0.096	321.432	174.336	147.096	\$ 23.54
2218	INTERIOR	NTA MONICA-MALIBU	CHILD DEVELOPMENT WASHINGTON EAST		T8-4'-32W-4L-EB/ISN-X-X	(LED)4L 12T8/4F/850/DIR, 97740 (1) QHE4	6	112	64	1816	1816	0.672	0.384	1220.352	697.344	523.008	\$ 83.68
2219	INTERIOR	NTA MONICA-MALIBU	CHILD DEVELOPMENT WASHINGTON EAST		CF/S-TWST-13W-1L-SELF-X-X	(LED)1L A19 8W 5000K E26, 455600	2	13	8	1816	1816	0.026	0.016	47.216	29.056	18.16	\$ 2.91
2220	INTERIOR	NTA MONICA-MALIBU	CHILD DEVELOPMENT WASHINGTON EAST		T8-4'-32W-4L-EB/ISN-X-X	(LED)4L 12T8/4F/850/DIR, 97740 (1) QHE4	2	112	64	1816	1816	0.224	0.128	406.784	232.448	174.336	\$ 27.89
2221	INTERIOR	NTA MONICA-MALIBU	CHILD DEVELOPMENT WASHINGTON EAST		T8-4'-32W-2L-EB/ISN-X-X	(LED)2L 12T8/4F/850/DIR, 97740 (1) QHE2	4	59	32	1816	1816	0.236	0.128	428.576	232.448	196.128	\$ 31.38
2222	INTERIOR	NTA MONICA-MALIBU	CHILD DEVELOPMENT WASHINGTON EAST		CF/S-TWST-13W-1L-SELF-X-X	(LED)1L A19 8W 5000K E26, 455600	4	13	8	1816	1816	0.052	0.032	94.432	58.112	36.32	\$ 5.81
2223	INTERIOR	NTA MONICA-MALIBU	CHILD DEVELOPMENT WASHINGTON EAST		T8-4'-32W-4L-EB/ISN-X-X	(LED)4L 12T8/4F/850/DIR, 97740 (1) QHE4	7	112	64	1816	1816	0.784	0.448	1423.744	813.568	610.176	\$ 97.63
2224	INTERIOR	NTA MONICA-MALIBU	CHILD DEVELOPMENT WASHINGTON EAST		CF/S-TWST-13W-1L-SELF-X-X	(LED)1L A19 8W 5000K E26, 455600	2	13	8	1816	1816	0.026	0.016	47.216	29.056	18.16	\$ 2.91
2225	INTERIOR	NTA MONICA-MALIBU	CHILD DEVELOPMENT WASHINGTON EAST	6 AND 7	T8-4'-32W-4L-EB/ISN-X-X	(LED)4L 12T8/4F/850/DIR, 97740 (1) QHE4	6	112	64	1816	1816	0.672	0.384	1220.352	697.344	523.008	\$ 83.68
2226	INTERIOR	NTA MONICA-MALIBU	CHILD DEVELOPMENT WASHINGTON EAST	6 AND 7	CF/S-TWST-13W-1L-SELF-X-X	(LED)1L A19 8W 5000K E26, 455600	3	13	8	1816	1816	0.039	0.024	70.824	43.584	27.24	\$ 4.36
2227	INTERIOR	NTA MONICA-MALIBU	CHILD DEVELOPMENT WASHINGTON EAST	6 AND 7	T8-4'-32W-2L-EB/ISN-X-X	(LED)2L 12T8/4F/850/DIR, 97740 (1) QHE2	3	59	32	1816	1816	0.177	0.096	321.432	174.336	147.096	\$ 23.54
2228	INTERIOR	NTA MONICA-MALIBU	CHILD DEVELOPMENT WASHINGTON EAST	6 AND 7	T8-4'-32W-4L-EB/ISN-X-X	(LED)4L 12T8/4F/850/DIR, 97740 (1) QHE4	6	112	64	1816	1816	0.672	0.384	1220.352	697.344	523.008	\$ 83.68
2229	INTERIOR	NTA MONICA-MALIBU	CHILD DEVELOPMENT WASHINGTON EAST	RESTROOM	T8-4'-32W-4L-EB/ISN-X-X	(LED)4L 12T8/4F/850/DIR, 97740 (1) QHE4	2	112	64	1816	1816	0.224	0.128	406.784	232.448	174.336	\$ 27.89
2230	INTERIOR	NTA MONICA-MALIBU	CHILD DEVELOPMENT WASHINGTON EAST	RESTROOM	CF/S-TWST-13W-1L-SELF-X-X	(LED)1L A19 8W 5000K E26, 455600	2	13	8	1816	1816	0.026	0.016	47.216	29.056	18.16	\$ 2.91
2231	INTERIOR	NTA MONICA-MALIBU	CHILD DEVELOPMENT WASHINGTON EAST	HALLWAY	T8-4'-32W-2L-EB/ISN-X-X	(LED)2L 12T8/4F/850/DIR, 97740 (1) QHE2	2	59	32	1816	1816	0.118	0.064	214.288	116.224	98.064	\$ 15.69
2232	INTERIOR	NTA MONICA-MALIBU	CHILD DEVELOPMENT WASHINGTON EAST	HALLWAY	CF/S-TWST-65W-1L-SELF-X-X	(LED)1L GREEN CREATIVE LED A21 18.5V	5	69	19	1816	1816	0.345	0.0925	626.52	167.98	458.54	\$ 73.37
2233	INTERIOR	NTA MONICA-MALIBU	CHILD DEVELOPMENT WASHINGTON EAST	LOCKED MECHANIC	T8-4'-32W-2L-EB/ISN-X-X	(LED)2L 12T8/4F/850/DIR, 97740 (1) QHE2	2	59	32	400	400	0.118	0.064	47.2	25.6	21.6	\$ 3.46
2234	INTERIOR	NTA MONICA-MALIBU	CHILD DEVELOPMENT WASHINGTON EAST	BASEMENT STORAGE	T8-4'-32W-2L-EB/ISN-X-X	(LED)2L 12T8/4F/850/DIR, 97740 (1) QHE2	57	59	32	400	400	3.363	1.824	1345.2	729.6	615.6	\$ 98.50
2235	INTERIOR	NTA MONICA-MALIBU	CHILD DEVELOPMENT WASHINGTON EAST	BASEMENT STORAGE	CF/S-TWST-13W-1L-SELF-X-X	(LED)1L A19 8W 5000K E26, 455600	5	13	8	400	400	0.065	0.04	26	16	10	\$ 1.60
2236	EXTERIOR	NTA MONICA-MALIBU	CHILD DEVELOPMENT WASHINGTON EAST	EXTERIOR	CF/S-TWST-23W-1L-SELF-X-X	(LED)1L A19 8W 5000K E26, 455600	2	23	8	3650	3650	0.046	0.016	167.9	58.4	109.5	\$ 17.52
2237	EXTERIOR	NTA MONICA-MALIBU	CHILD DEVELOPMENT WASHINGTON EAST	EXTERIOR	LED/I-WP-20W-INT-DRIV-X-X	EXCLUDED/NO CHANGE	8	23	23	3650	3650	0.184	0.184	671.6	671.6	0	\$ -
2238	EXTERIOR	NTA MONICA-MALIBU	CHILD DEVELOPMENT WASHINGTON EAST	EXTERIOR	CF/S-R40-23W-1L-SELF-X-X	(LED)1L GREEN CREATIVE 17PAR38G4/9	2	23	17	3650	3650	0.046	0.034	167.9	124.1	43.8	\$ 7.01
2239	EXTERIOR	NTA MONICA-MALIBU	CHILD DEVELOPMENT WASHINGTON EAST	EXTERIOR	MH-MOG-250W-1L-CWA-X-X	(LED)NEW DECO LARGE FLOOD, D206-L	3	295	120	3650	3650	0.885	0.36	3230.25	1314	1916.25	\$ 306.60
2240	EXTERIOR	NTA MONICA-MALIBU	CHILD DEVELOPMENT WASHINGTON EAST	EXTERIOR	T8-4'-32W-2L-EB/ISN-X-X	(LED)2L 12T8/4F/850/DIR, 97740 (1) QHE2	1	59	42	3650	3650	0.059	0.042	215.35	153.3	62.05	\$ 9.93
2241	EXTERIOR	NTA MONICA-MALIBU	CHILD DEVELOPMENT WASHINGTON EAST	EXTERIOR	HPS-MOG-250W-1L-CWA-X-X	(LED)NEW DECO MEDIUM FLOOD D211-L	1	295	60	3650	3650	0.295	0.06	1076.75	219	857.75	\$ 137.24
2242	EXTERIOR	NTA MONICA-MALIBU	CHILD DEVELOPMENT WASHINGTON EAST	EXTERIOR	LED/I-COBRA-80W-INT-DRIV-X-X	EXCLUDED/NO CHANGE	2	83	83	3650	3650	0.166	0.166	605.9	605.9	0	\$ -
												11.712	6.3785	19629.7	10605.432	9024.268	\$ 1,443.88

	kw saved	kWh saved	\$ saved
EXTERIOR	1.33	0.819	2,989.35
EXIT SIGNS		0	
INTERIOR	10.38	4.51	6,035
INCAND to LED		-	
		5.3335	9,024
			\$ 1,443.88

School District Santa Monica-Malibu USD - LED Option  
 Address: 0  
 0  
 School: CHILD DEVELOPMENT WASHINGTON WEST 2802 4TH ST.  
 School Address: WASHINGTON WEST 2802 4TH ST.  
 0

cost per kwh 0.16

LED Option

9.68 4.76 20,142.08 9,447.02 10,695.06 \$ 1,711.21

ORIGINAL AUDIT ID#	INTERIOR/EXTERIOR	SCHOOL DISTRICT	SCHOOL	ROOM	LIGHTING CODE (EXISTING)	ECM	PROPOSED FIXT QTY	EXIST WATT	PROP WATT	EXIST OPER HRS	PROP OPER HRS	EXISTING KW	PROPOSED KW	EXISTING KWH	PROPOSED KWH	SAVED KWH	ANN SAVINGS	
2243	INTERIOR	NTA MONICA-MALIBU U	CHILD DEVELOPMENT WASHIN		T8-4'-32W-4L-EB/ISN-X-X	(LED)4L 12T8/4F/850/DIR, 97740 (1) QHE4X32UNV/ISN	7	112	64	1816	1816	0.784	0.448	1423.744	813.568	610.176	\$ 97.63	
2244	INTERIOR	NTA MONICA-MALIBU U	CHILD DEVELOPMENT WASHIN		I/S-A19-60W-1L-NONE-X-X	(LED) 1L GREEN CREATIVE A19 9W E26 4000K 850 LM DIM	1	60	9	1816	1816	0.06	0.009	108.96	16.344	92.616	\$ 14.82	
2245	INTERIOR	NTA MONICA-MALIBU U	CHILD DEVELOPMENT WASHIN	MULTI PURPOSE	T8-4'-32W-6L-EB/ISN-X-X	(LED)6L 12T8/4F/850/DIR, 97740 (2) QHE3X32UNV/ISN	2	174	96	1886	1886	0.348	0.192	656.328	362.112	294.216	\$ 47.07	
2246	INTERIOR	NTA MONICA-MALIBU U	CHILD DEVELOPMENT WASHIN	MULTI PURPOSE	T8-4'-32W-2L-EB/ISN-X-X	(LED)2L 12T8/4F/850/DIR, 97740 (1) QHE2X32UNV/ISN	7	59	32	1886	1886	0.413	0.224	778.918	422.464	356.454	\$ 57.03	
2247	INTERIOR	NTA MONICA-MALIBU U	CHILD DEVELOPMENT WASHIN	MULTI PURPOSE	T8-4'-32W-4L-EB/ISN-X-X	(LED)4L 12T8/4F/850/DIR, 97740 (1) QHE4X32UNV/ISN	9	112	64	1886	1886	1.008	0.576	1901.088	1086.336	814.752	\$ 130.36	
2248	INTERIOR	NTA MONICA-MALIBU U	CHILD DEVELOPMENT WASHIN	MULTI PURPOSE	I/S-A19-60W-1L-NONE-X-X	(LED) 1L GREEN CREATIVE A19 9W E26 4000K 850 LM DIM	3	60	9	1886	1886	0.18	0.027	339.48	50.922	288.558	\$ 46.17	
2249	INTERIOR	NTA MONICA-MALIBU U	CHILD DEVELOPMENT WASHIN	MULTI PURPOSE	T8-4'-32W-2L-EB/ISN-X-X	(LED)2L 12T8/4F/850/DIR, 97740 (1) QHE2X32UNV/ISN	36	59	32	1886	1886	2.124	1.152	4005.864	2172.672	1833.192	\$ 293.31	
2250	INTERIOR	NTA MONICA-MALIBU U	CHILD DEVELOPMENT WASHIN	MULTI PURPOSE	CF/S-TWST-27W-1L-SELF-X-X	(LED)1L GREEN CREATIVE LED A21 17W DIM, 17A21G4DIM	6	27	17	1886	1886	0.162	0.102	305.532	192.372	113.16	\$ 18.11	
2251	INTERIOR	NTA MONICA-MALIBU U	CHILD DEVELOPMENT WASHIN	RESTROOMS	T8-4'-32W-4L-EB/ISN-X-X	(LED)4L 12T8/4F/850/DIR, 97740 (1) QHE4X32UNV/ISN	2	112	64	1816	1816	0.224	0.128	406.784	232.448	174.336	\$ 27.89	
2252	EXTERIOR	NTA MONICA-MALIBU U	CHILD DEVELOPMENT WASHIN	EXTERIOR	T8-4'-32W-2L-EB/ISN-X-X	(LED)2L 12T8/4F/850/DIR, 97740 (1) QHE2X32UNV/ISN	2	59	32	3650	3650	0.118	0.064	430.7	233.6	197.1	\$ 31.54	
2253	EXTERIOR	NTA MONICA-MALIBU U	CHILD DEVELOPMENT WASHIN	EXTERIOR	CF/S-TWST-27W-1L-SELF-X-X	(LED)1L GREEN CREATIVE LED A21 17W DIM, 17A21G4DIM	1	27	17	3650	3650	0.027	0.017	98.55	62.05	36.5	\$ 5.84	
2254	EXTERIOR	NTA MONICA-MALIBU U	CHILD DEVELOPMENT WASHIN	EXTERIOR	CF/S-TWST-23W-1L-SELF-X-X	(LED)1L GREEN CREATIVE 12A19G4DIM/840 (16177) (RELAT	4	23	12	3650	3650	0.092	0.048	335.8	175.2	160.6	\$ 25.70	
2255	INTERIOR	NTA MONICA-MALIBU U	CHILD DEVELOPMENT WASHIN	RESTROOM	CF/S-TWST-23W-1L-SELF-X-X	(LED)1L GREEN CREATIVE 12A19G4DIM/840 (16177) (RELAT	1	23	12	1816	1816	0.023	0.012	41.768	21.792	19.976	\$ 3.20	
2256	INTERIOR	NTA MONICA-MALIBU U	CHILD DEVELOPMENT WASHIN	RESTROOM	T8-4'-32W-2L-EB/ISN-X-X	(LED)2L 12T8/4F/850/DIR, 97740 (1) QHE2X32UNV/ISN	3	59	32	1816	1816	0.177	0.096	321.432	174.336	147.096	\$ 23.54	
2257	INTERIOR	NTA MONICA-MALIBU U	CHILD DEVELOPMENT WASHIN		T8-4'-32W-4L-EB/ISN-X-X	(LED)4L 12T8/4F/850/DIR, 97740 (1) QHE4X32UNV/ISN	7	112	64	1816	1816	0.784	0.448	1423.744	813.568	610.176	\$ 97.63	
2258	INTERIOR	NTA MONICA-MALIBU U	CHILD DEVELOPMENT WASHIN		I/S-A19-60W-1L-NONE-X-X	(LED) 1L GREEN CREATIVE A19 9W E26 4000K 850 LM DIM	1	60	9	1816	1816	0.06	0.009	108.96	16.344	92.616	\$ 14.82	
2259	INTERIOR	NTA MONICA-MALIBU U	CHILD DEVELOPMENT WASHIN		T8-4'-32W-4L-EB/ISN-X-X	(LED)4L 12T8/4F/850/DIR, 97740 (1) QHE4X32UNV/ISN	7	112	64	1816	1816	0.784	0.448	1423.744	813.568	610.176	\$ 97.63	
2260	INTERIOR	NTA MONICA-MALIBU U	CHILD DEVELOPMENT WASHIN		I/S-A19-60W-1L-NONE-X-X	(LED) 1L GREEN CREATIVE A19 9W E26 4000K 850 LM DIM	1	60	9	1816	1816	0.06	0.009	108.96	16.344	92.616	\$ 14.82	
2261	INTERIOR	NTA MONICA-MALIBU U	CHILD DEVELOPMENT WASHIN		CF/S-TWST-27W-1L-SELF-X-X	(LED)1L GREEN CREATIVE LED A21 17W DIM, 17A21G4DIM	1	27	17	1816	1816	0.027	0.017	49.032	30.872	18.16	\$ 2.91	
2262	INTERIOR	NTA MONICA-MALIBU U	CHILD DEVELOPMENT WASHIN		T8-4'-32W-4L-EB/ISN-X-X	(LED)4L 12T8/4F/850/DIR, 97740 (1) QHE4X32UNV/ISN	7	112	64	1816	1816	0.784	0.448	1423.744	813.568	610.176	\$ 97.63	
2263	INTERIOR	NTA MONICA-MALIBU U	CHILD DEVELOPMENT WASHIN		I/S-A19-90RW-1L-NONE-X-X	(LED)1L A19 14W 5000K E26, 455717	1	90	14	1816	1816	0.09	0.014	163.44	25.424	138.016	\$ 22.08	
2264	EXTERIOR	NTA MONICA-MALIBU U	CHILD DEVELOPMENT WASHIN	EXTERIOR	HI/S-R38-75W-1L-NONE-X-X	(LED)1L GREEN CREATIVE 12.5PAR30G4DIM940FL40, 16111	2	75	13	3650	3650	0.15	0.025	547.5	91.25	456.25	\$ 73.00	
2265	EXTERIOR	NTA MONICA-MALIBU U	CHILD DEVELOPMENT WASHIN	EXTERIOR	MH-MED-175W-1L-CWA-X-X	(LED)NEW DECO MEDIUM FLOOD D211-LED-60-50-UNV-T3/	2	215	60	3650	3650	0.43	0.12	1569.5	438	1131.5	\$ 181.04	
2266	INTERIOR	NTA MONICA-MALIBU U	CHILD DEVELOPMENT WASHIN	RESTROOM	I/S-A19-60W-2L-NONE-X-X	(LED)2L A19 8W 5000K E26, 455600	3	120	16	1816	1816	0.36	0.048	653.76	87.168	566.592	\$ 90.65	
2267	EXTERIOR	NTA MONICA-MALIBU U	CHILD DEVELOPMENT WASHIN	EXTERIOR	HPS-MOG-250W-1L-CWA-X-X	(LED)NEW DECO MEDIUM FLOOD D211-LED-60-50-UNV-T3/	1	295	60	3650	3650	0.295	0.06	1076.75	219	857.75	\$ 137.24	
2268	EXTERIOR	NTA MONICA-MALIBU U	CHILD DEVELOPMENT WASHIN	EXTERIOR	I/S-A19-60W-1L-NONE-X-X	(LED) 1L GREEN CREATIVE A19 9W E26 4000K 850 LM DIM	2	60	9	3650	3650	0.12	0.018	438	65.7	372.3	\$ 59.57	
													9.684	4.759	20142.082	9447.022	10695.06	\$ 1,711.21

	EXISTING KW	PROPOSED KW	EXISTING KWH	PROPOSED KWH	SAVED KWH	ANN SAVINGS
EXTERIOR	1.23	0.35	0.88	3,212.00	513.92	
EXIT SIGNS			0			
INTERIOR	7.64	4.29	3.35	6,212	993.93	
INCAND to LED	0.81	0.12	0.69	1,271.01	203.36	
			4.925	10,695	\$ 1,711.21	