

Medina City Schools



Energy Savings Program

PERFORMANCE YEAR 10
October 2018 – September 2019
YEAR END SAVINGS REPORT
March 17th, 2020

Prepared by:
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Section 1: Overview

The Brewer-Garrett Company (“Brewer-Garrett”) is pleased to present results of this year’s energy savings benefits of the Energy Savings Program at Medina City Schools (“Medina”). Construction completed in the fall of 2009, so we are currently tracking savings for Performance Year 10 (October 2018 through September 2019). This report also highlights the performance of the combined heat and power (“CHP”) unit installed at the High School in May 2014.

Year 10, ending in September 2019, was another successful year. Medina saved \$575,634 from both the original energy savings program and the CHP unit for a total cumulative savings of \$4,467,710. See Section 3 for an updated summary of savings over the entire history of the project.

Brewer-Garrett has conducted surveys of your interior and exterior lighting systems throughout the Medina City School District. Interior fluorescent and HID lighting were replaced with new LED lamps and fixtures as a part of this project. The exterior parking lots, walkways, and building lighting systems have been updated and transformed with these new lighting systems. This retrofit project has resulted in lighting which now enhances the appearance of the District, improves overall lighting quality, reduces environmental impact, improves District safety, and reduces energy and operational costs. Brewer-Garrett installed more than 31,000 LED lamps, 4,300 ballasts, 520 interior LED fixtures, and 500 exterior LED fixtures resulting in an annual utility savings of \$200,991 and utility rebates of \$90,994 paid directly to the District. More information on this District Wide LED Retrofit Project can be accessed in the Lighting Measurement & Verification Project Report presented on November 22nd, 2019.

YEAR END SAVINGS and CHP REPORT

Section 2: Savings Guarantee Summary

The Performance Guarantee is governed by the Energy Performance Agreements executed by Medina City Schools and The Brewer-Garrett Company on August 31, 2007 and September 30, 2013 (collectively as the "Contract"). The Performance Guarantee, summarized in Table 2a, is based on the Contract dated 8/31/2007 Schedule C "Energy and Operational Savings Guarantee." The Total Guaranteed Savings over the term of this agreement (15 years) is \$4,736,535.

Table 2a: Performance Guarantee Summary

Total Guaranteed Savings (\$) per Contract 8/31/2007	\$4,736,535
Total Guaranteed Savings (\$) per Contract 9/30/2013	\$419,467

See Table 3a.

Guaranteed Savings (\$)					
Performance Year	Water/Sewer/ Energy Savings (\$)	Stipulated Operational Savings (\$)	Total Guaranteed Savings (\$)	Cumulative Guaranteed Savings (\$)	
1	2010	\$315,769	\$0	\$315,769	\$315,769
2	2011	\$315,769	\$0	\$315,769	\$631,538
3	2012	\$315,769	\$0	\$315,769	\$947,307
4	2013	\$315,769	\$0	\$315,769	\$1,263,076
5	2014	\$315,769	\$0	\$315,769	\$1,578,845
6	2015	\$315,769	\$0	\$315,769	\$1,894,614
7	2016	\$315,769	\$0	\$315,769	\$2,210,383
8	2017	\$315,769	\$0	\$315,769	\$2,526,152
9	2018	\$315,769	\$0	\$315,769	\$2,841,921
10	2019	\$315,769	\$0	\$315,769	\$3,157,690
11	2020	\$315,769	\$0	\$315,769	\$3,473,459
12	2021	\$315,769	\$0	\$315,769	\$3,789,228
13	2022	\$315,769	\$0	\$315,769	\$4,104,997
14	2023	\$315,769	\$0	\$315,769	\$4,420,766
15	2024	\$315,769	\$0	\$315,769	\$4,736,535
Total	\$4,736,535	\$0	\$4,736,535		

Note: The Combined Heat and Power (CHP) project (contract executed 9/30/2013) guaranteed \$537,112 to cover the cost of the project (adjusted to \$419,467 since the project was not financed.) This guarantee amount is not included in the table above, since the CHP project was funded via excess savings from years 1 through 3 of the program. See Table 3a.

YEAR END SAVINGS and CHP REPORT

A second Energy Performance and Service Agreement dated 9/30/2013 provided for the installation of a Combined Heat and Power (“CHP”) Project that was estimated to generate \$62,833 in additional energy savings and increase operational costs by \$17,760 annually for a net savings of \$45,073. This second agreement guaranteed that Medina would recover the cost of the CHP project including construction and financing costs estimated at \$537,122. Since Medina was able to fund the project without financing, thereby eliminating interest costs, the guaranteed amount was adjusted to \$419,467, equivalent to the installed cost for the CHP system.

For auditing and verification purposes the parties agreed that the original Total Guaranteed Savings amount of \$4,736,535 for the original contract should not be increased to reflect the additional CHP project guarantees; instead the Cumulative Actual Savings achieved during Performance Years 1 through 3 was reduced by \$419,467 as shown in Table 3a.

YEAR END SAVINGS and CHP REPORT

Section 3: Performance History

At the end of Performance Year 10, Medina City Schools had accumulated more than \$5 million in savings since the beginning of the energy savings program, more than \$1.8 million above the guaranteed savings.

Table 3a: Performance History for the Medina City Schools Energy Savings Program

Performance Year		Guaranteed Savings (\$)	Actual Savings (\$)	Cumulative Guaranteed Savings (\$)	Cumulative Actual Savings (\$)
---	Interim Period	-----	\$470,472	-----	\$470,472
1	10/09 - 9/10	\$315,769	\$438,675	\$315,769	\$909,147
2	10/10 - 9/11	\$315,769	\$478,648	\$631,538	\$1,387,795
3	10/11 - 9/12	\$315,769	\$444,287	\$947,307	\$1,832,082
Note: CHP Project contract was signed 9/30/2013 and guaranteed total savings of \$419,467; this Project was funded via the excess savings from years 1 through 3 of the guarantee. The annual Guaranteed Savings amount has not been increased to reflect the additional CHP Project guarantee; instead the Cumulative Actual Savings for Performance Year 3 has been reduced by \$419,467.					
3	rev	\$315,769	\$444,287	\$947,307	\$1,412,615
4	10/12 - 9/13	\$315,769	\$501,965	\$1,263,076	\$1,914,580
5	10/13 - 9/14	\$315,769	\$566,866	\$1,578,845	\$2,481,447
6	10/14 - 9/15	\$315,769	\$501,972	\$1,894,614	\$2,983,419
7	10/15 - 9/16	\$315,769	\$440,660	\$2,210,383	\$3,424,079
8	10/16 - 9/17	\$315,769	\$460,049	\$2,526,152	\$3,884,128
9	10/17 - 9/18	\$315,769	\$583,582	\$2,841,921	\$4,467,710
10	10/18 - 9/19	\$315,769	\$575,634	\$3,157,690	\$5,043,344
11	10/19 - 9/20	\$315,769			
12	10/20 - 9/21	\$315,769			
13	10/21 - 9/22	\$315,769			
14	10/22 - 9/23	\$315,769			
15	10/23 - 9/24	\$315,769			
Total		\$4,736,535			

Energy Audit for Medina City Schools, Year 10

The undersigned agrees that The Brewer-Garrett Company delivered this audit report to Medina City Schools. If no written reply is made to The Brewer-Garrett Company concerning the validity of this audit in 30 days, it will be considered received by Medina City Schools.

Received by:

Date:

Medina City Schools

Delivered by:

Date:

The Brewer-Garrett Company

YEAR END SAVINGS and CHP REPORT

Section 4: Summary of Savings

Medina City Schools ~ Performance Year 10
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Summary of Savings

Electric			
KWH Used In Base Year		11,180,440	KWH
Baseline for	Performance Year 10	10,370,020	KWH
Actual Usage for	Performance Year 10	7,395,352	KWH
Total KWH Saved		2,974,668	KWH
Total Dollars Saved		\$431,942	
Natural Gas			
MCF Used In Base Year		42,373	MCF
Baseline for	Performance Year 10	44,918	MCF
Actual Usage for	Performance Year 10	33,255	MCF
Total MCF Saved		11,663	MCF
Total Dollars Saved		\$135,741	
Water and Sewer			
Water Used In Base Year		3,676	CCF
Water Baseline for	Performance Year 10	3,676	CCF
Water Actual Usage for	Performance Year 10	2,085	CCF
Total Water CCF Saved		1,591	CCF
Total Water Dollars Saved		\$6,249	
Total Sewer Dollars Saved		\$18,093	
Lighting M&V Savings at Bus Garage	Performance Year 10	\$1,370	
Stipulated Operational Savings (Costs)			
CHP Maintenance Costs	Performance Year 10	(\$17,761)	
Total Actual Savings	Performance Year 10	\$575,634	
Total Guaranteed Savings	Performance Year 10	\$315,789	

Table 4a

Section 5: Electric Savings

Several projects implemented as part of the Medina City Schools Energy Savings Program were projected to achieve electric savings. These projects include a) district wide lighting retrofits and occupancy sensor installations, b) lighting controls at the High School, c) district wide vending machine control, d) variable frequency drives at Ella Canavan, Root and the High School, e) demand ventilation at Blake, Heritage, High School and Root, f) building automation system upgrades at the High School, and g) electric fan coil unit replacement with a natural gas unit at Heritage. The savings at Blake, as a result of our rate investigation with First Energy/Ohio Edison have continued.

The annual projected and actual electric savings for each school are charted side by side on the next page in Figure 5a. We are very pleased to report that the actual electric savings have exceeded the projected savings. In order to provide some perspective on the contribution of each school to savings, the graphs have been scaled similarly. It is clear that the High School provides the largest contribution to electrical savings.

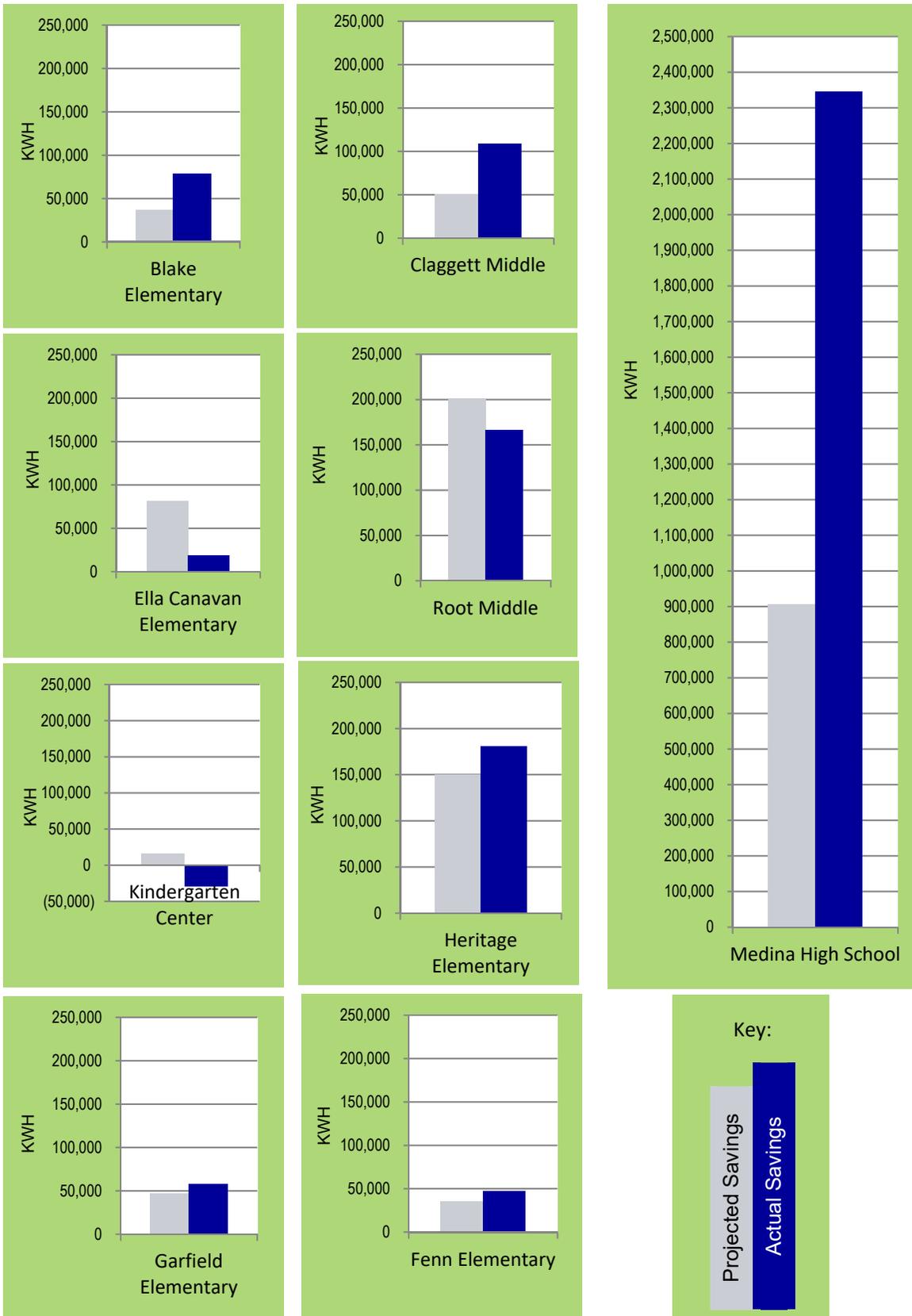


Figure 5a

Electric savings are determined by multiplying the energy and demand saving units by the applicable utility rate to convert units saved to dollars saved. Units of electricity saved are equal to the Baseline kWh minus Actual kWh, where the Baseline is the Base Year adjusted for time, weather and events. The electric savings are calculated monthly and then summed to yield an annual amount. The applicable utility rate is based on the larger of the electric rate paid during the Performance Year or the Base Year as specified in Section 8.1 of the Contract.

The electricity savings at the Bus Garage as a result of the lighting retrofit are calculated based on the Measurement and Verification (M&V) methodology explained in Schedule F of the Contract. This methodology is used because the lighting retrofit is the only Energy Conservation Measure implemented at the Bus Garage; therefore, electric savings due to lighting can be isolated. An analysis of the utility bill is unnecessary. Voltage and amperage readings were taken in several locations throughout the Bus Garage and the other Medina schools, before and after the lighting retrofits took place. The before and after readings were taken with the same meters, in the same locations, and were used to calculate an average of watts of energy used by each lamp technology. The average readings for both the before and after measurements were inserted into a standard lighting spreadsheet to generate units saved. These units saved were multiplied by the utility rate to convert units saved to dollars saved. The electric savings at the Bus Garage resulting from the lighting retrofit are \$1,370 for each year including this Performance Year.

Electric use in all of the Medina City Schools that were affected by Brewer-Garrett is summarized in Figure 5c. During Performance Year 10, the annual electric usage in the schools affected by the Energy Savings Program decreased by nearly 3 million kWh (29%) from the Baseline. This is a savings of \$431,942 to Medina, and a reduction of 2,103 metric tons of CO₂ emissions.

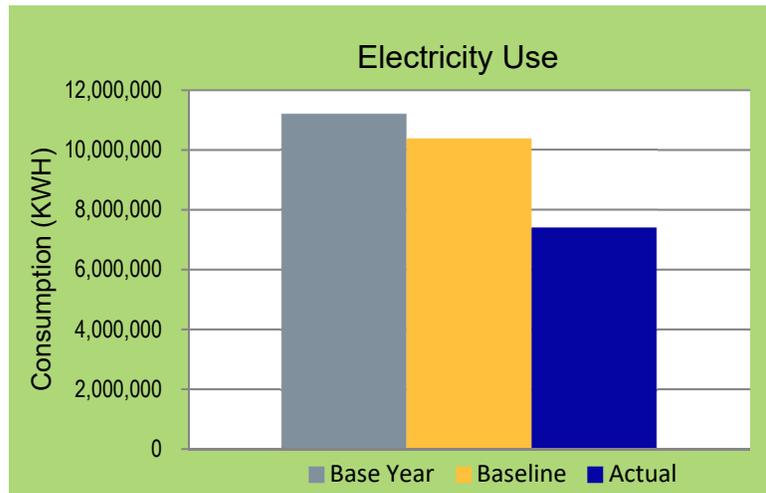


Figure 5c

Section 6: Natural Gas Savings

Several projects implemented as part of the Medina City Schools Energy Savings Program were projected to result in natural gas savings. These projects include a) demand ventilation at Blake, Heritage, High School and Root, b) building automation system upgrades at the High School, c) heat recovery and pool system modifications at the High School, and d) replacement of heating/ventilating units at Fenn and Garfield. The replacement of an electric fan coil unit with a gas-fired unit at Heritage was expected to save electricity but use more natural gas.

The annual projected and actual natural gas savings for each school are charted side by side on the next page in Figure 6a. As expected, natural gas use at Heritage increased due to the installation of the gas-fired heating unit.

In order to provide some perspective on the contribution of each school to the total savings, the graphs have been scaled similarly.

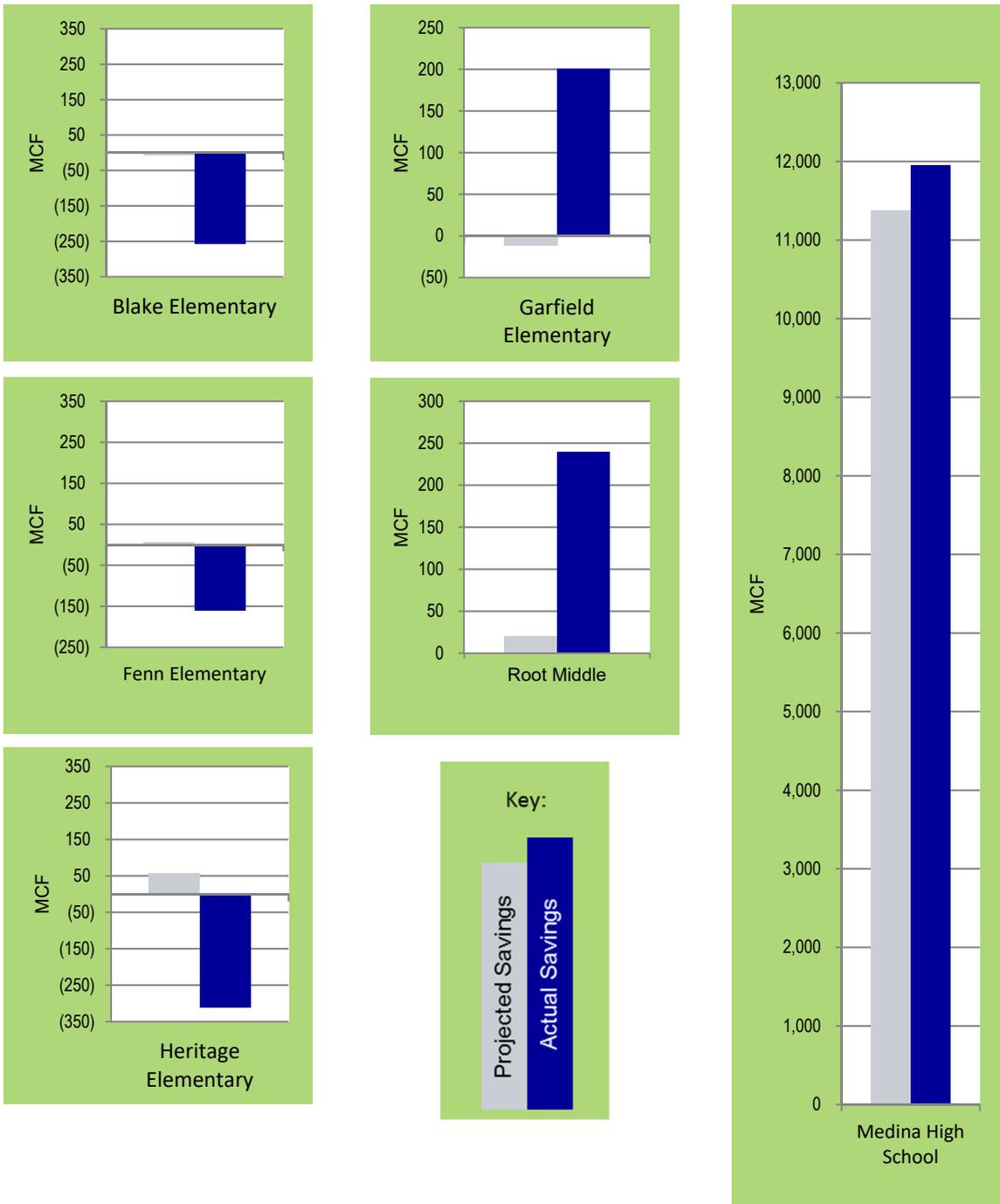


Figure 6a

YEAR END SAVINGS and CHP REPORT

Natural gas dollar savings are calculated each month by multiplying the monthly natural gas rate in \$/MCF by the units of natural gas saved. The monthly natural gas rate in \$/MCF is calculated based on Total Natural Gas \$ / Total Natural Gas MCF and is calculated separately for each building. The units of natural gas saved are equal to the Baseline MCF minus Actual MCF, where Baseline is the Base Year adjusted for time, weather and events. The natural gas savings are calculated each month, and then summed to yield an annual savings.

The energy savings are calculated based on the larger of the natural gas rate paid during the Performance Year or the Base Year as specified in Section 8.1 of the Contract.

Natural gas use in all the Medina City Schools that were affected by Brewer-Garrett is summarized in Figure 6b. During Performance Year 10, the natural gas usage in the schools affected by the Energy Savings Program has been reduced by 11,663 MCF, or 26% from the Baseline. This is a savings of \$135,741 to Medina, and a reduction of 640 metric tons of CO₂ emissions.

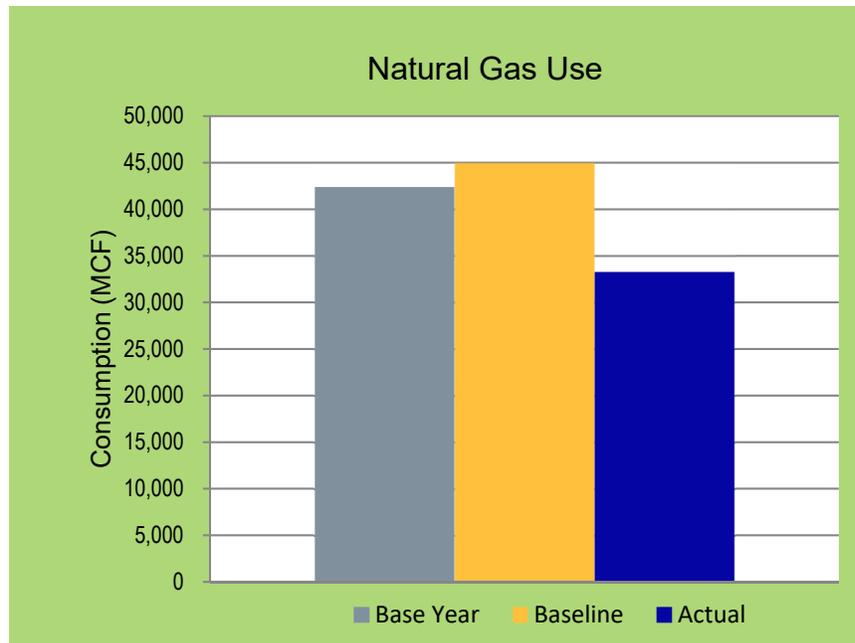


Figure 6b

Section 7: Water and Sewer Savings

Water conservation projects were implemented at Claggett and Garfield as part of the Medina City Schools Energy Savings Program and included the replacement of water cooled condensers with air cooled units, and the automation of flush systems for urinals in the boys' bathrooms. In addition, Brewer-Garrett was instrumental in effecting a sewer rate change for Claggett. As a result, water and sewer savings were expected at both Claggett and Garfield.

Sewer savings were expected at the High School, where a sub-meter was installed for the cooling tower. This sub-meter enables the measurement of water evaporation to the atmosphere during the cooling process.

During a review of sewer billing data, it was determined that the Medina County Sanitary Engineering Department has reduced the quantity of sewer UNITS that each school is billed, no doubt in response to a reduction in water use. An analysis was performed to validate the sewer billing practices; this summary is shown in Table 7a. It appears that the High School is under-billed while Claggett and Garfield are over-billed. This data is provided to Medina for informational purposes; we have not approached the Medina County Sanitary Engineering Department.

Sewer UNITS Billing Analysis		Claggett	Garfield	High School
Annual Actual Water Use	CCF	1,043	1,042	12,471
Annual Actual Water Use	Gallons	780,164	779,416	9,328,308
Annual Actual UNITS Used	UNITS	111	111	1,333
Annual UNITS Billed	UNITS	180	224	1,187
Monthly Actual UNITS Used	UNITS	9.3	9.3	111.1
Monthly UNITS Billed	UNITS	14.99	18.64	98.94
Overbilled or (Underbilled)	UNITS	68	112	(145)
Overbilled or (Underbilled)	\$	\$2,002	\$3,287	(\$4,251)
Total Overbilled (Underbilled)	UNITS		36	
Total Overbilled (Underbilled)	\$		\$1,038	

Note:
 1 "Unit" = 230 gallons/day
 1 "Unit" = 7,000 gallons/month

Table 7a

YEAR END SAVINGS and CHP REPORT

Water dollar savings are calculated each month by multiplying the monthly water rate in \$/CCF by the units of water saved. The monthly water rate in \$/CCF is calculated based on: Total Water \$ / Total Water CCF, and is calculated separately for each building. The units of water saved are equal to the Baseline CCF minus Actual CCF, where Baseline is the Base Year use with no adjustments. The water savings are calculated each month, and then summed to yield an annual savings.

Sewer dollar savings are calculated bi-monthly, to correspond with actual sewer bills. Sewer savings in this performance report are from: a) Claggett, as the result of the reduction in sewer “units” that Brewer-Garrett was instrumental in securing, and b) Garfield, as the result of the reduction in water use, and the corresponding reduction in sewer “units” that the Medina County Sanitary Engineering Department implemented. No sewer savings for the High School were included in this report. The sewer savings in terms of “units” are multiplied by the sewer rate in \$/unit” on a bi-monthly basis, and then summed to yield an annual savings.

The water and sewer savings are calculated based on the larger of the water and sewer rates paid during the Performance Year or the Base Year as specified in Section 8.1 of the Contract.

The combined water use for Claggett and Garfield is summarized in Figure 7b. The Base Year, Baseline and Actual total usage during Performance Year 10 are shown side-by-side for comparison. The overall water usage in these schools has been reduced by approximately 43% from the Baseline; this is a savings to Medina of over \$18,000 in water and sewer charges.

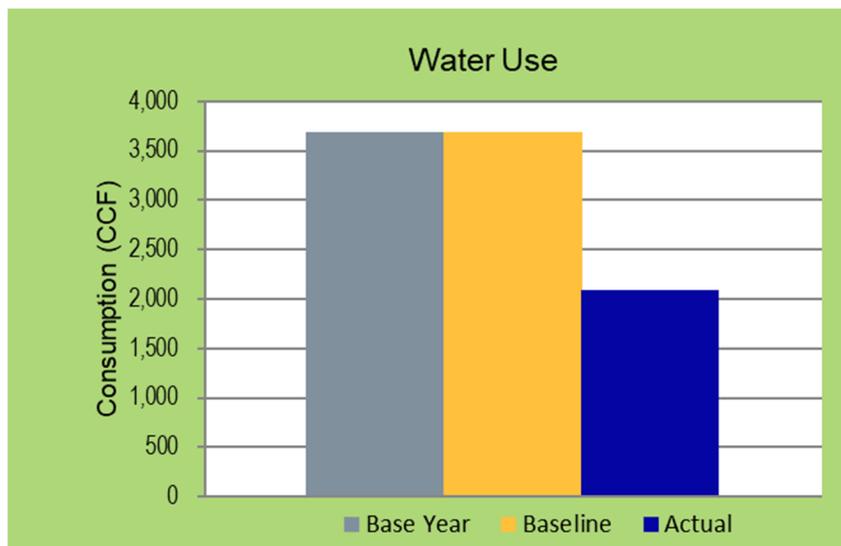


Figure 7b

Section 8: Operational Savings

No operational savings were claimed on this project.

Section 9: Adjustments

Adjustments are incorporated in the baseline projection for energy use to include changes in the number of days in a billing period as well as weather fluctuations.

The heating/ventilating units at Fenn and Garfield were replaced and air conditioning was added as part of the Energy Savings Program. The energy use associated with the air conditioning equipment is an adjustment to the baseline as addressed in Schedule F of the Contract: Savings Calculation Formulae: Methodology to Adjust Baseline.

The additional demand and energy use for these units is calculated based on the information in Table 9a and is included in the Electric Baseline.

School Name	Quantity	Unit Description
Fenn Elementary	1	Library/Computer Lab Unit 10 ton, EER=11, 2300 hrs
	1	Gym Unit 10 ton, EER=11, 2700 hrs
Garfield Elementary	1	Gym Unit 12 ton, EER=9.7, 2925 hrs

Table 9a

The District Wide Lighting Retrofit Project was completed during Performance Year 10. The lighting project is separate from the original energy savings program. To ensure the savings from the lighting retrofit were not accounted for twice, the energy savings associated with lighting project is an adjustment to the baseline of the energy savings program. The lighting retrofit adjustment were calculated from measurement and verification savings. The Lighting M&V Savings Summary is provided in Appendix A.

Section 10: Energy Savings – Performance Year 10

For Performance Year 10 (October 2018 through September 2019), Brewer-Garrett guarantees \$315,769 in annual savings as shown in Table 2a.

Based on utility bills for electric, natural gas, water and sewer, Medina saved \$593,395. However, Medina has incurred additional maintenance costs for oil changes and other CHP engine service items provided by W.W.Williams. These costs were included in the project’s savings projections as a stipulated annual amount of \$17,761. Including these costs reduces the net savings to \$575,634 in Performance Year 10.

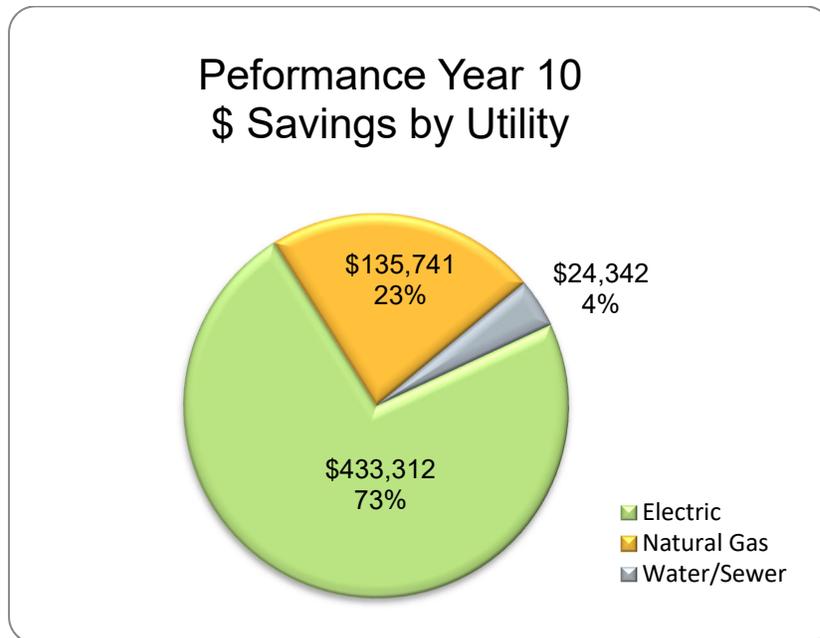


Figure 10a

Section 11: CHP Savings

Brewer-Garrett wants to feature the performance of the combined heat and power (CHP) unit installed at the High School. The unit feeds electricity and thermal energy to both the High School and adjoining recreation center. The CHP unit itself records electricity production and other important parameters, so Brewer-Garrett was able to assemble data, spanning the Performance Year.



Figure 6a. CHP Unit (front and back views with heat recovery piping)

In order to calculate net savings, Brewer-Garrett collects data directly from the CHP unit showing operating temperatures, output and performance. This information was compared to specifications to ensure that performance remained consistent. For the past year, the CHP unit has displayed technical maintenance issues. The unit would shut down because the temperature of the system was out of range of the unit due to buildup of scale in the heat exchanger. With the assistance of Brewer-Garrett, MTU America and W.Williams came together to find 2 potential strategies to address these issues.

Brewer-Garrett is committed to not only continue to enhance the value of the CHP asset for Medina but also to help address any issues.

Section 12: Conclusion

This report concludes that both the CHP unit and the larger Energy Savings Program at Medina City Schools have so far exceeded guarantee savings targets. The CHP unit was integrated into the High School heating system and delivers both electrical and thermal energy to the system.

Brewer-Garrett is pleased to be Medina's energy partner. We believe in bringing value to the partnership in areas outside of merely reporting energy savings.

Natural gas prices remain steady and have even declined over the period, while electricity continues to be more expensive. Therefore, Brewer-Garrett expects the CHP unit to deliver increasing value to Medina in the years to come.

Appendix A – Tables and Charts

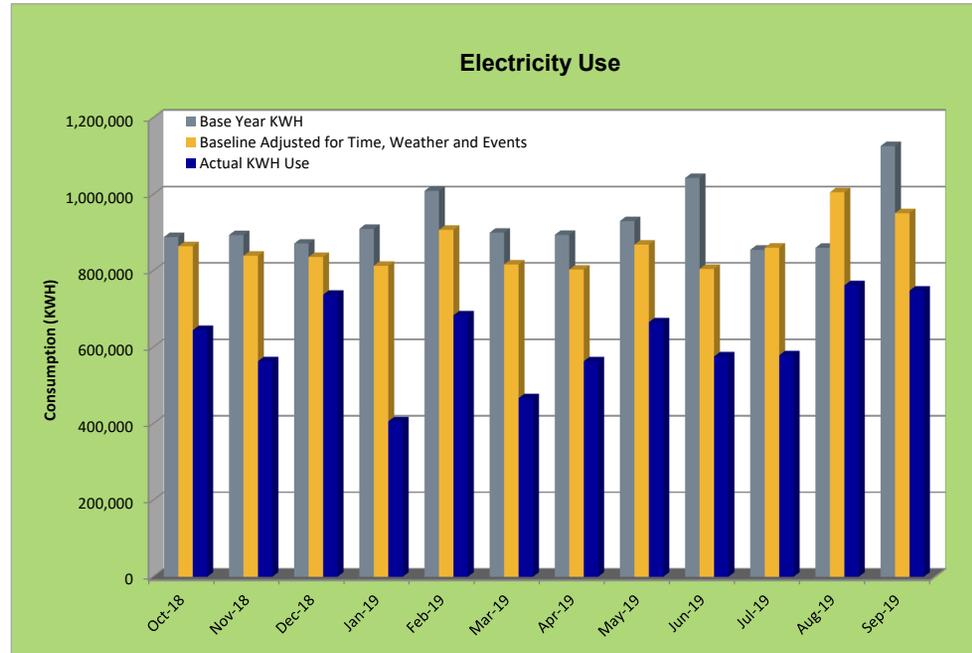
Medina City Schools ~ Performance Year 10

Electricity Summary

Electricity Used In Base Year	11,180,440	KWH
Adjustments for Time, Weather and Events	(810,420)	KWH
Baseline Usage	10,370,020	KWH
Actual Usage	7,395,352	KWH

Total KWH Saved	2,974,668
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Total Dollars Saved	\$431,942
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Medina City Schools ~ Performance Year 10

Electricity Savings

Electricity Base Year Units KWH

	October	November	December	January	February	March	April	May	June	July	August	September	Total
KWH													
Blake Elementary	53,120	55,640	55,920	47,080	60,880	58,760	48,520	56,240	53,440	34,360	41,800	55,360	621,120
Claggett Middle	38,080	41,280	40,160	45,920	49,760	45,440	34,560	41,920	33,120	21,440	21,600	44,960	458,240
Ella Canavan Elementary	27,520	24,880	24,720	23,360	25,760	25,760	24,080	29,840	29,360	18,240	14,800	26,800	295,120
Fenn Elementary	19,920	23,280	16,720	18,960	22,800	21,600	18,720	20,560	16,560	12,480	14,880	22,160	228,640
Garfield Elementary	27,360	24,960	26,040	20,160	27,840	26,400	24,120	26,520	29,160	15,000	24,480	30,720	302,760
Heritage Elementary	34,240	42,000	46,880	64,160	58,160	53,520	41,040	37,920	34,400	21,200	28,240	36,400	498,160
Medina High School	589,200	578,400	554,400	600,000	645,600	561,600	613,200	612,000	732,000	684,000	646,800	801,600	7,618,800
Kindergarten Center	8,160	9,240	8,880	8,880	11,040	8,160	9,800	8,520	7,280	6,240	6,080	9,400	101,680
Root Middle	90,640	93,920	97,520	81,280	107,200	98,560	80,080	96,640	107,680	42,000	61,440	98,960	1,055,920
Total KWH	888,240	893,600	871,240	909,800	1,009,040	899,800	894,120	930,160	1,043,000	854,960	860,120	1,126,360	11,180,440

Electricity Base Year Cost \$

	October	November	December	January	February	March	April	May	June	July	August	September	Total
Cost \$													
Blake Elementary	\$9,600	\$9,704	\$9,715	\$9,285	\$9,841	\$9,753	\$9,332	\$9,650	\$9,534	\$8,825	\$9,132	\$9,692	\$114,063
Claggett Middle	\$5,402	\$5,205	\$4,655	\$5,425	\$5,539	\$5,426	\$5,307	\$5,461	\$5,091	\$3,208	\$3,304	\$5,622	\$59,645
Ella Canavan Elementary	\$3,920	\$3,401	\$2,853	\$2,778	\$3,538	\$3,887	\$2,848	\$4,238	\$4,603	\$2,870	\$2,332	\$3,800	\$41,069
Fenn Elementary	\$2,254	\$2,380	\$1,896	\$2,246	\$2,345	\$2,313	\$1,403	\$2,267	\$2,235	\$1,256	\$1,593	\$2,459	\$24,647
Garfield Elementary	\$3,338	\$2,973	\$2,938	\$2,844	\$3,138	\$3,022	\$3,000	\$3,343	\$4,481	\$2,316	\$3,770	\$4,411	\$39,574
Heritage Elementary	\$4,169	\$4,947	\$5,756	\$6,266	\$6,093	\$6,324	\$5,201	\$4,286	\$5,078	\$3,021	\$4,223	\$4,411	\$59,776
Medina High School	\$58,128	\$57,109	\$54,509	\$39,837	\$46,096	\$52,823	\$56,607	\$56,576	\$63,172	\$61,799	\$60,844	\$63,586	\$671,086
Kindergarten Center	\$1,290	\$1,346	\$1,330	\$940	\$997	\$919	\$991	\$1,063	\$1,151	\$988	\$963	\$1,352	\$13,331
Root Middle	\$14,124	\$14,183	\$14,218	\$10,979	\$10,965	\$11,571	\$11,340	\$10,461	\$14,028	\$12,127	\$6,581	\$9,620	\$140,197
Total Cost \$	\$102,225	\$101,247	\$97,872	\$80,600	\$88,552	\$96,037	\$96,028	\$97,345	\$109,374	\$96,412	\$92,742	\$104,952	\$1,163,388

Electricity Base Year Unit Cost \$/KWH

	October	November	December	January	February	March	April	May	June	July	August	September	Average Base Year Demand & Energy Rate	
Unit Cost \$/KWH														
Blake Elementary	\$0.181	\$0.174	\$0.174	\$0.197	\$0.162	\$0.166	\$0.192	\$0.172	\$0.178	\$0.257	\$0.218	\$0.175	\$17.00/KW	\$0.0400/KWH
Claggett Middle	\$0.142	\$0.126	\$0.116	\$0.118	\$0.111	\$0.119	\$0.154	\$0.130	\$0.154	\$0.150	\$0.153	\$0.125	\$16.11/KW	\$0.0593/KWH
Ella Canavan Elementary	\$0.142	\$0.137	\$0.115	\$0.119	\$0.137	\$0.151	\$0.118	\$0.142	\$0.157	\$0.157	\$0.158	\$0.142	\$14.68/KW	\$0.0686/KWH
Fenn Elementary	\$0.113	\$0.102	\$0.113	\$0.118	\$0.103	\$0.107	\$0.075	\$0.110	\$0.135	\$0.101	\$0.107	\$0.111	\$21.98/KW	\$0.0298/KWH
Garfield Elementary	\$0.122	\$0.119	\$0.113	\$0.141	\$0.113	\$0.114	\$0.124	\$0.126	\$0.154	\$0.154	\$0.154	\$0.144	\$15.08/KW	\$0.0662/KWH
Heritage Elementary	\$0.122	\$0.118	\$0.123	\$0.098	\$0.105	\$0.118	\$0.127	\$0.113	\$0.148	\$0.142	\$0.150	\$0.121	\$19.87/KW	\$0.0397/KWH
Medina High School	\$0.099	\$0.099	\$0.098	\$0.066	\$0.071	\$0.094	\$0.092	\$0.092	\$0.086	\$0.090	\$0.094	\$0.079	\$20.65/KW	\$0.0257/KWH
Kindergarten Center	\$0.158	\$0.146	\$0.150	\$0.106	\$0.090	\$0.113	\$0.101	\$0.125	\$0.158	\$0.158	\$0.158	\$0.144	\$14.28/KW	\$0.0724/KWH
Root Middle	\$0.156	\$0.151	\$0.146	\$0.135	\$0.102	\$0.117	\$0.142	\$0.108	\$0.130	\$0.289	\$0.107	\$0.097	\$15.43/KW	\$0.0652/KWH

Medina City Schools ~ Performance Year 10

Electricity Savings

Electricity Actual Performance Year Units KWH

	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Total
KWH													
Blake Elementary	40,514	36,353	37,128	37,944	39,943	31,334	34,762	36,230	32,681	30,110	52,102	33,211	442,312
Claggett Middle	30,080	29,760	28,800	30,080	29,920	26,080	27,200	32,960	8,960	13,920	37,760	40,480	336,000
Ella Canavan Elementary	17,200	17,760	15,440	16,800	17,760	14,240	16,400	15,520	12,560	9,920	22,800	18,480	194,880
Fenn Elementary	17,840	16,160	15,120	16,320	17,120	16,240	14,320	13,920	11,360	11,760	24,000	18,480	192,640
Garfield Elementary	22,800	28,080	19,440	27,960	25,560	21,120	20,640	18,480	15,360	14,160	28,080	22,920	264,600
Heritage Elementary	28,080	36,080	34,320	36,880	37,600	33,840	17,600	17,600	14,240	12,160	26,240	21,120	315,760
Medina High School	421,200	332,400	524,400	159,600	452,400	270,000	367,200	470,400	436,800	444,000	490,800	517,200	4,886,400
Kindergarten Center	7,800	8,440	10,640	8,120	10,520	8,000	7,640	7,640	9,800	7,480	9,520	7,960	103,560
Root Middle	59,200	58,400	52,160	72,400	52,560	45,840	57,600	52,800	34,160	35,360	70,480	68,240	659,200
Total KWH	644,714	563,433	737,448	406,104	683,383	466,694	563,362	665,550	575,921	578,870	761,782	748,091	7,395,352

Electricity Actual Performance Year Cost \$

	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Total
Cost \$													
Blake Elementary	\$4,643	\$4,347	\$4,476	\$4,585	\$4,793	\$4,257	\$4,431	\$4,648	\$4,376	\$4,376	\$5,727	\$4,264	\$54,923
Claggett Middle	\$3,645	\$3,154	\$3,140	\$3,269	\$3,384	\$3,094	\$3,175	\$4,307	\$2,238	\$1,799	\$4,365	\$4,207	\$39,775
Ella Canavan Elementary	\$2,003	\$1,970	\$1,923	\$1,944	\$2,045	\$1,796	\$2,576	\$2,382	\$2,905	\$2,535	\$3,159	\$2,539	\$27,778
Fenn Elementary	\$2,247	\$1,713	\$1,682	\$1,770	\$1,879	\$1,831	\$1,707	\$1,725	\$1,544	\$1,560	\$2,513	\$2,035	\$22,206
Garfield Elementary	\$2,357	\$2,681	\$2,176	\$2,761	\$2,636	\$2,281	\$2,270	\$2,441	\$1,932	\$1,786	\$3,302	\$2,655	\$29,278
Heritage Elementary	\$3,550	\$3,786	\$3,778	\$4,036	\$4,195	\$3,736	\$2,672	\$2,560	\$2,245	\$1,489	\$3,179	\$2,687	\$37,913
Medina High School	\$41,377	\$29,985	\$41,795	\$19,924	\$40,348	\$28,159	\$36,849	\$44,985	\$46,642	\$42,689	\$46,678	\$45,874	\$465,306
Kindergarten Center	\$946	\$884	\$1,032	\$908	\$1,091	\$950	\$913	\$914	\$1,299	\$1,182	\$1,150	\$987	\$12,256
Root Middle	\$6,913	\$6,733	\$6,439	\$7,933	\$6,793	\$6,138	\$8,175	\$9,073	\$5,000	\$6,688	\$9,946	\$9,253	\$89,085
Total Cost \$	\$67,680	\$55,254	\$66,441	\$47,131	\$67,164	\$52,244	\$62,768	\$73,035	\$68,181	\$64,104	\$80,018	\$74,500	\$778,519

Electricity Actual Performance Year Unit Cost \$/KWH

	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	
Unit Cost \$/KWH													
Blake Elementary	\$0.115	\$0.120	\$0.121	\$0.121	\$0.120	\$0.136	\$0.127	\$0.128	\$0.134	\$0.145	\$0.110	\$0.128	
Claggett Middle	\$0.121	\$0.106	\$0.109	\$0.109	\$0.113	\$0.119	\$0.117	\$0.131	\$0.250	\$0.129	\$0.116	\$0.104	
Ella Canavan Elementary	\$0.116	\$0.111	\$0.125	\$0.116	\$0.115	\$0.126	\$0.157	\$0.153	\$0.231	\$0.256	\$0.139	\$0.137	
Fenn Elementary	\$0.126	\$0.106	\$0.111	\$0.108	\$0.110	\$0.113	\$0.119	\$0.124	\$0.136	\$0.133	\$0.105	\$0.110	
Garfield Elementary	\$0.103	\$0.095	\$0.112	\$0.099	\$0.103	\$0.108	\$0.110	\$0.132	\$0.126	\$0.126	\$0.118	\$0.116	
Heritage Elementary	\$0.105	\$0.110	\$0.109	\$0.112	\$0.110	\$0.152	\$0.145	\$0.158	\$0.122	\$0.121	\$0.127	\$0.120	
Medina High School	\$0.098	\$0.090	\$0.080	\$0.125	\$0.089	\$0.104	\$0.100	\$0.096	\$0.107	\$0.096	\$0.095	\$0.089	
Kindergarten Center	\$0.121	\$0.105	\$0.097	\$0.112	\$0.104	\$0.119	\$0.120	\$0.120	\$0.133	\$0.158	\$0.121	\$0.124	
Root Middle	\$0.117	\$0.115	\$0.123	\$0.110	\$0.129	\$0.134	\$0.142	\$0.172	\$0.146	\$0.189	\$0.141	\$0.136	

Medina City Schools ~ Performance Year 10

Electricity Savings

Electricity Baseline Units KWH

	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Total
KWH													
Blake Elementary	46,114	51,993	50,508	47,322	55,327	47,493	44,300	43,484	32,683	24,340	35,553	42,054	521,170
Claggett Middle	39,426	44,857	45,232	44,122	48,877	43,354	40,052	37,468	29,440	16,863	24,316	30,751	444,758
Ella Canavan Elementary	18,141	24,048	24,891	23,116	23,161	18,113	18,337	14,243	15,587	10,700	12,099	10,849	213,286
Fenn Elementary	15,029	20,275	20,643	19,907	19,038	17,443	13,906	16,723	27,822	26,749	25,129	17,243	239,906
Garfield Elementary	27,115	28,002	25,185	28,941	27,475	27,215	26,272	27,436	27,470	25,010	27,672	24,889	322,681
Heritage Elementary	42,677	55,603	57,201	57,444	56,367	46,977	38,386	30,420	35,024	23,731	27,809	24,691	496,329
Medina High School	587,875	516,028	524,434	491,206	576,596	525,515	541,217	634,004	595,883	700,174	798,477	740,680	7,232,088
Kindergarten Center	5,697	7,980	9,555	8,927	4,450	8,429	6,602	6,317	4,633	3,892	4,034	3,738	74,254
Root Middle	82,091	90,474	78,437	92,217	95,657	82,100	74,170	58,428	36,358	29,069	50,449	56,098	825,548
Total KWH	864,164	839,261	836,087	813,202	906,948	816,638	803,241	868,524	804,900	860,528	1,005,536	950,992	10,370,020

Electricity Savings or (Shortfall) KWH

	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Total
KWH													
Blake Elementary	5,600	15,640	13,380	14,694	21,603	16,159	9,538	7,254	2	4,332	(1,401)	8,843	115,644
Claggett Middle	9,346	15,097	16,432	14,042	18,957	17,274	12,852	4,508	20,480	2,943	(13,444)	(9,729)	108,758
Ella Canavan Elementary	941	6,288	9,451	10,860	10,646	3,873	1,937	(1,277)	3,027	12,541	(9,020)	(7,631)	41,637
Fenn Elementary	(2,811)	4,115	5,523	3,587	1,918	1,203	(414)	2,803	16,462	14,989	1,129	(1,237)	47,266
Garfield Elementary	4,315	(78)	5,745	5,399	(208)	6,095	5,632	8,956	12,110	6,366	1,789	1,969	58,089
Heritage Elementary	14,597	19,523	22,881	28,476	9,732	13,137	20,786	12,820	20,784	14,593	(1,425)	3,571	179,474
Medina High School	166,675	183,628	34	331,606	124,196	255,515	174,017	163,604	159,083	256,174	307,677	223,480	2,345,688
Kindergarten Center	(2,103)	(460)	(1,085)	807	(6,070)	429	(1,038)	(1,323)	(5,167)	(3,588)	(5,486)	(4,222)	(29,306)
Root Middle	22,891	32,074	26,277	19,817	43,097	36,260	16,570	5,628	2,198	(10,244)	(37,082)	(12,142)	145,344
Savings KWH	219,450	275,828	98,639	429,288	223,871	349,944	239,879	202,974	228,979	298,106	242,736	202,901	3,012,593

Electricity Savings or (Shortfall) \$

	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Total
\$													
Blake Elementary	\$4,127	\$4,532	\$4,442	\$4,209	\$4,447	\$4,476	\$4,300	\$4,018	\$3,752	\$3,222	\$2,517	\$3,545	\$47,587
Claggett Middle	\$1,326	\$1,913	\$1,905	\$1,906	\$2,144	\$2,081	\$2,128	\$589	\$5,115	\$940	(\$1,883)	(\$363)	\$17,801
Ella Canavan Elementary	\$845	\$1,184	\$1,314	\$1,203	\$1,501	\$1,476	\$925	\$1,179	\$851	\$1,047	\$146	\$571	\$12,243
Fenn Elementary	(\$354)	\$491	\$626	\$728	\$579	\$427	\$739	\$634	\$2,238	\$1,988	\$121	\$163	\$8,380
Garfield Elementary	\$619	\$297	\$711	\$396	\$456	\$854	\$1,248	\$1,251	\$2,089	\$2,188	\$112	\$502	\$10,722
Heritage Elementary	\$1,845	\$2,299	\$2,809	\$2,724	\$2,187	\$1,552	\$3,155	\$1,865	\$3,513	\$1,649	\$235	\$454	\$24,288
Medina High School	\$16,443	\$25,788	\$16,036	\$41,396	\$20,914	\$26,649	\$19,197	\$16,005	\$16,987	\$24,630	\$29,262	\$19,822	\$273,130
Kindergarten Center	\$25	\$264	\$198	\$90	(\$487)	\$51	(\$87)	(\$33)	(\$368)	(\$428)	(\$287)	(\$196)	(\$1,258)
Root Middle	\$6,547	\$6,484	\$3,831	\$3,031	\$5,570	\$4,856	\$2,352	\$1,694	\$3,046	\$3,080	(\$1,724)	\$282	\$39,049
Savings \$	\$31,424	\$43,253	\$31,872	\$55,683	\$37,311	\$42,422	\$33,957	\$27,203	\$37,223	\$38,316	\$28,498	\$24,780	\$431,942

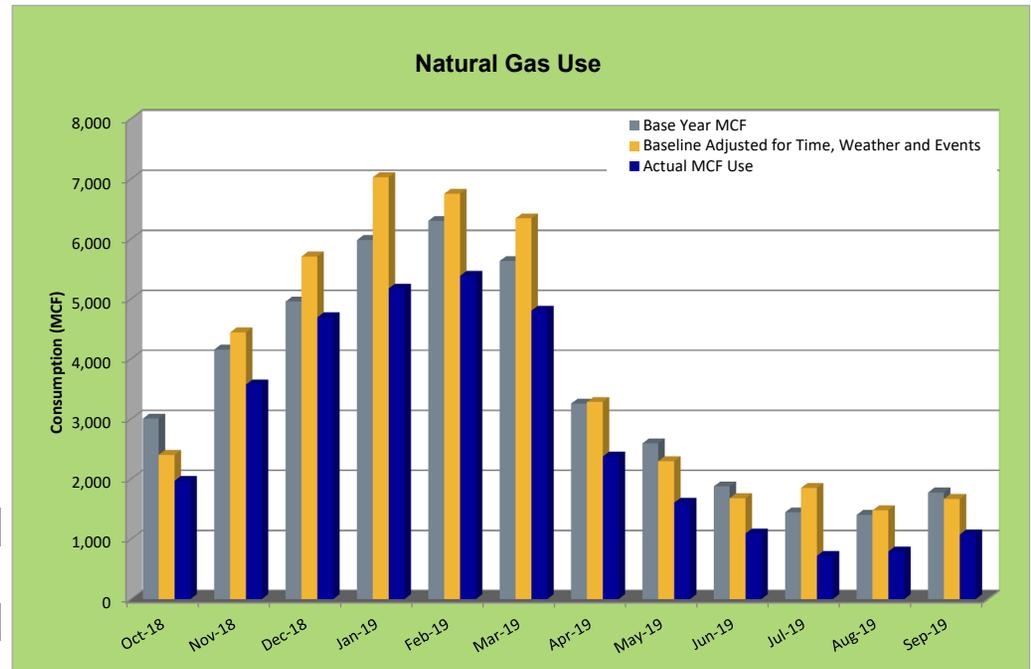
Medina City Schools ~ Performance Year 10

Natural Gas Summary

Natural Gas Used In Base Year	42,373	MCF
Adjustments for Time, Weather and Events	2,545	MCF
Baseline Usage	44,918	MCF
Actual Usage	33,255	MCF

Total MCF Saved 11,663

Total Dollars Saved \$135,741



Medina City Schools ~ Performance Year 10

Natural Gas Savings

Natural Gas Base Year Units MCF

	October	November	December	January	February	March	April	May	June	July	August	September	Total
MCF													
Blake Elementary	3	52	134	258	184	267	179	51	44	11	3	25	1,211
Fenn Elementary	88	250	238	372	407	333	148	101	15	4	14	4	1,974
Garfield Elementary	118	248	300	402	476	376	124	111	3	3	2	3	2,166
Heritage Elementary	12	17	36	64	46	54	27	1	5	0	2	2	266
Medina High School	2,742	3,356	3,932	4,508	4,725	4,275	2,550	2,233	1,765	1,424	1,379	1,713	34,602
Root Middle	43	233	315	376	462	327	227	96	44	3	0	28	2,154
Total MCF	3,006	4,156	4,955	5,980	6,300	5,632	3,255	2,593	1,876	1,445	1,400	1,775	42,373

Natural Gas Base Year Cost \$

	October	November	December	January	February	March	April	May	June	July	August	September	Total
Cost \$													
Blake Elementary	\$48	\$571	\$1,567	\$3,714	\$2,265	\$3,679	\$1,947	\$582	\$445	\$125	\$54	\$302	\$15,300
Fenn Elementary	\$752	\$2,671	\$2,765	\$5,311	\$4,939	\$4,553	\$1,600	\$1,114	\$159	\$53	\$165	\$60	\$24,141
Garfield Elementary	\$954	\$2,551	\$3,085	\$5,703	\$5,580	\$4,986	\$1,295	\$1,177	\$21	\$42	\$36	\$48	\$25,479
Heritage Elementary	\$112	\$182	\$412	\$926	\$558	\$734	\$296	\$26	\$62	\$16	\$36	\$37	\$3,396
Medina High School	\$22,664	\$35,483	\$45,205	\$63,965	\$56,940	\$58,043	\$27,140	\$24,096	\$16,629	\$13,055	\$14,586	\$18,848	\$396,654
Root Middle	\$376	\$2,491	\$3,651	\$5,358	\$5,602	\$4,470	\$2,440	\$860	\$435	\$43	\$16	\$353	\$26,096
Total Cost \$	\$24,906	\$43,948	\$56,685	\$84,978	\$75,885	\$76,464	\$34,718	\$27,855	\$17,751	\$13,334	\$14,893	\$19,648	\$491,066

Natural Gas Base Year Unit Cost \$/MCF

	October	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	
Unit Cost \$/MCF													
Blake Elementary	\$15.95	\$10.99	\$11.70	\$14.40	\$12.31	\$13.78	\$10.88	\$11.40	\$10.11	\$11.40	\$18.13	\$12.09	
Fenn Elementary	\$8.54	\$10.68	\$11.62	\$14.28	\$12.13	\$13.67	\$10.81	\$11.03	\$10.61	\$13.16	\$11.80	\$15.06	
Garfield Elementary	\$8.08	\$10.28	\$10.28	\$14.19	\$11.72	\$13.26	\$10.44	\$10.61	\$6.95	\$14.07	\$18.03	\$16.04	
Heritage Elementary	\$9.35	\$10.68	\$11.44	\$14.47	\$12.14	\$13.58	\$10.97	\$26.43	\$12.30	\$0.00	\$18.03	\$18.39	
Medina High School	\$8.27	\$10.57	\$11.50	\$14.19	\$12.05	\$13.58	\$10.64	\$10.79	\$9.42	\$9.17	\$10.58	\$11.00	
Root Middle	\$8.75	\$10.69	\$11.59	\$14.25	\$12.13	\$13.67	\$10.75	\$8.96	\$9.89	\$14.47	\$0.00	\$12.62	

Medina City Schools ~ Performance Year 10

Natural Gas Savings

Natural Gas Actual Performance Year Units MCF

	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Total
MCF													
Blake Elementary	25	133	216	244	288	252	104	55	12	11	10	14	1,364
Fenn Elementary	78	266	368	468	479	382	168	81	23	13	13	21	2,360
Garfield Elementary	63	276	348	423	482	369	176	84	7	7	7	9	2,251
Heritage Elementary	12	63	104	115	146	112	41	18	2	1	2	3	619
Medina High School	1,742	2,598	3,298	3,578	3,551	3,296	1,703	1,275	1,023	674	748	1,007	24,493
Root Middle	49	237	359	344	438	393	181	92	26	13	14	22	2,168
Total MCF	1,969	3,573	4,693	5,172	5,384	4,804	2,373	1,605	1,093	719	794	1,076	33,255

Natural Gas Actual Performance Year Cost \$

	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Total
Cost \$													
Blake Elementary	\$260	\$850	\$1,637	\$1,541	\$1,575	\$1,375	\$655	\$400	\$181	\$184	\$179	\$200	\$9,039
Fenn Elementary	\$547	\$1,541	\$2,664	\$2,793	\$2,503	\$1,992	\$950	\$525	\$247	\$195	\$195	\$237	\$14,388
Garfield Elementary	\$459	\$1,563	\$2,491	\$2,495	\$2,464	\$1,889	\$968	\$530	\$162	\$162	\$162	\$173	\$13,518
Heritage Elementary	\$184	\$467	\$868	\$775	\$870	\$696	\$343	\$218	\$137	\$132	\$137	\$143	\$4,969
Medina High School	\$8,965	\$13,622	\$22,398	\$20,099	\$17,340	\$15,768	\$8,009	\$5,857	\$4,790	\$3,197	\$3,527	\$4,691	\$128,262
Root Middle	\$390	\$1,391	\$2,603	\$2,100	\$2,304	\$2,044	\$1,010	\$577	\$263	\$195	\$200	\$242	\$13,317
Total Cost \$	\$10,804	\$19,433	\$32,660	\$29,804	\$27,057	\$23,763	\$11,934	\$8,108	\$5,780	\$4,065	\$4,400	\$5,686	\$183,493

Natural Gas Actual Performance Year Unit Cost \$/MCF

	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	
Unit Cost \$/MCF													
Blake Elementary	\$10.41	\$6.39	\$7.58	\$6.32	\$5.47	\$5.45	\$6.30	\$7.28	\$15.07	\$16.76	\$17.91	\$14.31	
Fenn Elementary	\$7.01	\$5.79	\$7.24	\$5.97	\$5.23	\$5.21	\$5.66	\$6.48	\$10.76	\$14.97	\$14.97	\$11.27	
Garfield Elementary	\$7.28	\$5.66	\$7.16	\$5.90	\$5.11	\$5.12	\$5.50	\$6.31	\$23.18	\$23.21	\$23.21	\$19.21	
Heritage Elementary	\$15.31	\$7.41	\$8.35	\$6.74	\$5.96	\$6.22	\$8.35	\$12.10	\$68.44	\$132.24	\$68.54	\$47.54	
Medina High School	\$5.15	\$5.24	\$6.79	\$5.62	\$4.88	\$4.78	\$4.70	\$4.59	\$4.68	\$4.74	\$4.71	\$4.66	
Root Middle	\$7.96	\$5.87	\$7.25	\$6.10	\$5.26	\$5.20	\$5.58	\$6.28	\$10.10	\$14.98	\$14.28	\$11.00	

Medina City Schools ~ Performance Year 10

Natural Gas Savings

Natural Gas Baseline Units MCF

	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Total
MCF													
Blake Elementary	2	5	7	275	267	250	120	75	24	37	21	23	1,106
Fenn Elementary	91	304	353	450	408	349	135	48	9	37	8	8	2,201
Garfield Elementary	67	272	403	495	507	453	141	56	4	41	6	6	2,451
Heritage Elementary	9	34	49	60	61	55	19	8	0	7	3	3	309
Medina High School	2,146	3,566	4,511	5,276	5,029	4,805	2,724	2,041	1,603	1,722	1,437	1,584	36,443
Root Middle	85	258	381	469	480	430	143	69	39	6	3	45	2,407
Total MCF	2,400	4,440	5,705	7,026	6,751	6,342	3,283	2,296	1,680	1,850	1,477	1,668	44,918

Natural Gas Savings or (Shortfall) MCF

	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Total
MCF													
Blake Elementary	(23)	(128)	(209)	31	(21)	(2)	16	20	12	26	11	9	(258)
Fenn Elementary	13	38	(15)	(18)	(71)	(33)	(33)	(33)	(14)	24	(5)	(13)	(159)
Garfield Elementary	4	(4)	55	72	25	84	(35)	(28)	(3)	34	(1)	(3)	200
Heritage Elementary	(3)	(29)	(55)	(55)	(85)	(57)	(22)	(10)	(2)	6	1	(0)	(310)
Medina High School	404	968	1,213	1,698	1,478	1,509	1,021	766	580	1,048	689	577	11,950
Root Middle	36	21	22	125	42	37	(38)	(23)	13	(8)	(11)	23	239
Savings MCF	431	867	1,012	1,854	1,367	1,538	910	691	587	1,131	683	592	11,663

Natural Gas Savings or (Shortfall) \$

	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Total
\$													
Blake Elementary	(\$364)	(\$1,403)	(\$2,445)	\$446	(\$257)	(\$31)	\$175	\$226	\$188	\$434	\$195	\$127	(\$2,709)
Fenn Elementary	\$111	\$407	(\$173)	(\$252)	(\$861)	(\$448)	(\$354)	(\$368)	(\$149)	\$364	(\$79)	(\$197)	(\$1,999)
Garfield Elementary	\$35	(\$38)	\$569	\$1,027	\$289	\$1,113	(\$366)	(\$298)	(\$66)	\$791	(\$31)	(\$58)	\$2,965
Heritage Elementary	(\$45)	(\$305)	(\$624)	(\$792)	(\$1,033)	(\$775)	(\$243)	(\$256)	(\$122)	\$775	\$50	(\$13)	(\$3,383)
Medina High School	\$3,341	\$10,231	\$13,943	\$24,097	\$17,805	\$20,486	\$10,870	\$8,265	\$5,463	\$9,608	\$7,289	\$6,343	\$137,743
Root Middle	\$312	\$226	\$261	\$1,780	\$509	\$504	(\$408)	(\$209)	\$128	(\$112)	(\$160)	\$293	\$3,124
Savings \$	\$3,389	\$9,117	\$11,530	\$26,306	\$16,451	\$20,849	\$9,675	\$7,361	\$5,442	\$11,860	\$7,264	\$6,496	\$135,741

Lighting M & V Savings Summary

Building	Area	Projected Savings ¹				Actual Savings ²				Excess or (Shortfall)				
		Electricity		Natural Gas		Electricity		Natural Gas		Electricity		Natural Gas		%
		KWH	\$	MCF	\$	KWH	\$	MCF	\$	KWH	\$	MCF	\$	\$
Blake Elementary	Interior	77,496	9,687	(44)	(232)	95,539	11,942	(51)	(264)	18,043	\$2,255	(6)	(\$32)	123.5%
	Exterior	15,200	1,900			14,979	1,872			(221)	(\$28)	0	\$0	98.5%
	Total	92,696	\$11,587	(44)	(\$232)	110,518	\$13,815	(51)	(\$264)	17,822	\$2,228	(6)	(\$32)	119.3%
Board Office	Interior	18,525	2,186	(8)	(53)	21,481	2,535	(11)	(74)	2,955	\$349	(3)	(\$21)	115.4%
	Exterior	11,771	1,389			10,177	1,201			(1,594)	(\$188)	0	\$0	86.5%
	Total	30,297	\$3,575	(8)	(\$53)	31,658	\$3,736	(11)	(\$74)	1,362	\$161	(3)	(\$21)	104.0%
Bus Garage	Interior	16,305	2,136	(13)	(91)	25,503	3,341	(14)	(101)	9,197	\$1,205	(1)	(\$10)	158.4%
	Exterior	45,542	5,966			32,630	4,275			(12,912)	(\$1,691)	0	\$0	71.6%
	Total	61,847	\$8,102	(13)	(\$91)	58,133	\$7,615	(14)	(\$101)	(3,714)	(\$487)	(1)	(\$10)	93.8%
Claggett Middle School	Interior	108,348	12,460	(61)	(430)	98,533	11,331	(52)	(367)	(9,815)	(\$1,129)	9	\$63	91.1%
	Exterior	6,357	731			7,884	907			1,527	\$176	0	\$0	124.0%
	Total	114,704	\$13,191	(61)	(\$430)	106,417	\$12,238	(52)	(\$367)	(8,288)	(\$953)	9	\$63	93.0%
Ella Canavan Elementary	Interior	54,744	7,686	(29)	(204)	53,598	7,525	(28)	(200)	(1,146)	(\$161)	1	\$4	97.9%
	Exterior	12,863	1,806			19,803	2,780			6,940	\$974	0	\$0	153.9%
	Total	67,607	\$9,492	(29)	(\$204)	73,400	\$10,305	(28)	(\$200)	5,794	\$813	1	\$4	108.8%
Fenn Elementary	Interior	30,377	3,463	(16)	(80)	30,177	3,440	(16)	(78)	(200)	(\$23)	1	\$2	99.4%
	Exterior	5,482	625			5,891	672			408	\$47	0	\$0	107.4%
	Total	35,860	\$4,088	(16)	(\$80)	36,067	\$4,112	(16)	(\$78)	208	\$24	1	\$2	100.7%
Garfield Elementary	Interior	52,443	6,031	(28)	(138)	55,741	6,410	(30)	(144)	3,297	\$379	(1)	(\$6)	106.3%
	Exterior	2,478	285			2,436	280			(43)	(\$5)	0	\$0	98.3%
	Total	54,922	\$6,316	(28)	(\$138)	58,176	\$6,690	(30)	(\$144)	3,254	\$374	(1)	(\$6)	106.0%
Heritage Elementary	Interior	59,316	6,940	(32)	(225)	61,804	7,231	(33)	(230)	2,488	\$291	(1)	(\$5)	104.3%
	Exterior	4,342	508			4,076	477			(265)	(\$31)	0	\$0	93.9%
	Total	63,658	\$7,448	(32)	(\$225)	65,881	\$7,708	(33)	(\$230)	2,222	\$260	(1)	(\$5)	103.5%
Medina High School	Interior	341,596	32,110	(182)	(762)	277,417	26,077	(147)	(616)	(64,179)	(\$6,033)	35	\$146	81.2%
	Exterior	263,989	24,815			305,558	28,722			41,569	\$3,907	0	\$0	115.7%
	Total	605,585	\$56,925	(182)	(\$762)	582,975	\$54,800	(147)	(\$616)	(22,610)	(\$2,125)	35	\$146	96.5%
Recreation Center Pools and Fieldhouse	Interior	93,085	8,750	(50)	(208)	163,635	15,382	(87)	(363)	70,550	\$6,632	(37)	(\$155)	175.8%
	Exterior													
	Total	93,085	\$8,750	(50)	(\$208)	163,635	\$15,382	(87)	(\$363)	70,550	\$6,632	(37)	(\$155)	175.8%
H.S. Hallway Downlights	Interior	83,851	7,882	(45)	(187)	69,738	6,555	(37)	(155)	(14,113)	(\$1,327)	8	\$32	83.2%
	Exterior													
	Total	83,851	\$7,882	(45)	(\$187)	69,738	\$6,555	(37)	(\$155)	(14,113)	(\$1,327)	8	\$32	83.2%
Maintenance Shop	Interior	16,110	1,756	(10)	(71)	14,958	1,630	(8)	(56)	(1,152)	(\$126)	2	\$15	93.4%
	Exterior	2,220	242			1,499	163			(721)	(\$79)	0	\$0	67.5%
	Total	18,330	\$1,998	(10)	(\$71)	16,458	\$1,794	(8)	(\$56)	(1,873)	(\$204)	2	\$15	90.2%
Northrop Elementary	Interior	69,411	10,134	(38)	(244)	80,294	11,723	(43)	(276)	10,883	\$1,589	(5)	(\$32)	115.7%
	Exterior	31,986	4,670			35,350	5,161			3,363	\$491	0	\$0	110.5%
	Total	101,397	\$14,804	(38)	(\$244)	115,643	\$16,884	(43)	(\$276)	14,246	\$2,080	(5)	(\$32)	114.1%
Root Middle School	Interior	148,977	19,814	(82)	(398)	147,811	19,659	(78)	(381)	(1,166)	(\$155)	3	\$17	99.3%
	Exterior	36,677	4,878			36,626	4,871			(51)	(\$7)	0	\$0	99.9%
	Total	185,654	\$24,692	(82)	(\$398)	184,437	\$24,530	(78)	(\$381)	(1,217)	(\$162)	3	\$17	99.4%
Waite Elementary	Interior	68,939	10,134	(38)	(244)	69,040	10,149	(37)	(238)	101	\$15	1	\$6	100.2%
	Exterior	32,027	4,708			36,138	5,312			4,110	\$604	0	\$0	112.8%
	Total	100,966	\$14,842	(38)	(\$244)	105,178	\$15,461	(37)	(\$238)	\$619	\$619	1	\$6	104.3%
Added Exterior Lighting Scope	Interior													
	Exterior					31,114	\$2,909			31,114	\$2,909			
	Total	0	\$0	0	\$0	31,114	\$2,909	0	\$0	31,114	\$2,909			
All Buildings	TOTAL	1,710,460	\$193,692	-676	-3,567	1,809,428	\$204,534	-671	-3,543	98,968	\$10,842	4	\$24	105.7%
									\$200,991		Total Energy Savings			

Additional Project Savings

Item	Occurance	Proposed Savings/Cost	Actual Savings/Cost ³	Additional Savings
Utility Rebates	One Time	\$81,624	\$90,994	\$9,370
Subcontractor Cost Savings	One Time	\$1,301,327	\$1,012,544	\$288,783

¹ Based on Contract Guaranteed Dollars and Current Utility Rates

² Based on Contract Lighting Sheets and M&V Data using Current Utility Rates

³ Subcontractor Actual Cost includes Original Bid Value plus Change Order #1

Total Rebates & Subcontract Savings	\$379,777
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